In the bustling realm of interviews, where questions dance like fireflies in the night, there lies a secret mantra that echoes through the corridors of creativity: **Forget originality, Steal Like an Artist.**

Imagine a universe where interview frameworks aren't just structured; they're woven together like a captivating story, borrowing gems of wisdom from the minds that came before us. In this exciting adventure, we'll embark on a quest to craft your unique interview framework, where every question is a stolen treasure, carefully reshaped into your own masterpiece. So, grab your imagination and let's dive into the art of borrowing brilliance to create conversations that sparkle with ingenuity!

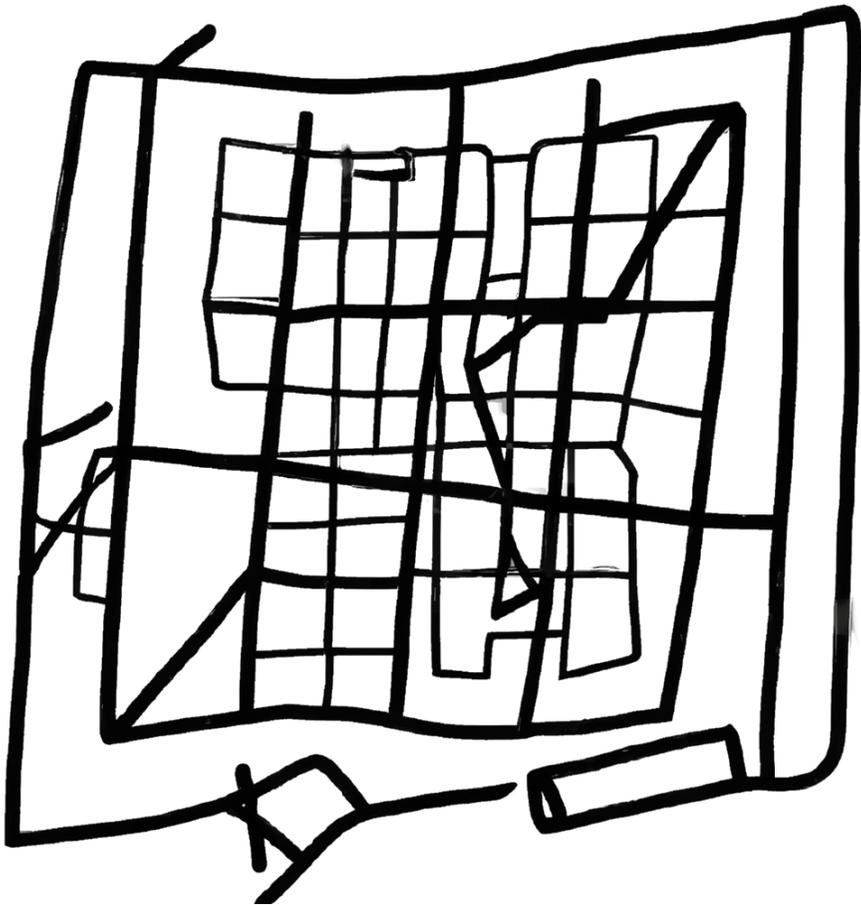<div align="center">~ a whimsical passage crafted by AI ~</div>

Contents

Designing your Signature Blueprint

In the world of Product Management interviews, interviewers often find themselves stuck in a culinary routine, consuming the same meal prepared the same way daily—an experience that becomes monotonous. To capture the interviewers' attention, you must be the chef who innovates. Crafting your unique blueprint for PM interviews is akin to preparing a distinct dish using familiar ingredients. It's about infusing creativity into the well-known elements, experimenting with flavors, and presenting a fresh perspective.

EVERY OTHER PM CANDIDATES   YOU
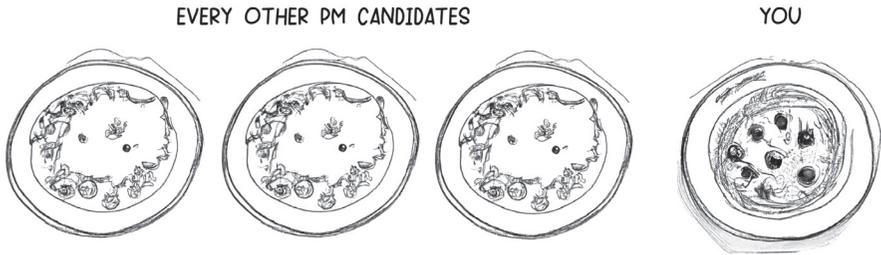
In this book, I'll share the practical strategies I used to prepare for PM interviews at top tech firms like Amazon and Google. Despite my lack of prior PM experience, these methods helped me secure Product Management roles at both companies, even when competing against candidates with more experience.

Since I will delve right into the specifics that set you apart, I assume that you've already:
1. Read typical books on PM interviews and are acquainted with the PM interview process.
2. Familiarized yourself with common PM interview frameworks like CIRCLES (if not, a quick Google search will suffice).
3. Practiced with mock interviews or been in real PM interview scenarios.

I prefer to keep things concise. I understand that when you're busy preparing for interviews, the last thing you need is to wade through information you won't remember. This book is meant to serve as a practical reference that you can refer to during your practice. Similarly, my goal is also to give you just enough high-quality examples without overwhelming you with an excess of them.

With that, let us get started!

How to create your own framework

Becoming proficient starts with imitation. Creating your own framework doesn't happen overnight; it emerges after practicing with standard frameworks for a while. In my initial month of practicing PM interviews, I focused on mastering the standard framework and jotting down notes and tips from various sources, including experienced PMs I practiced with. As I encountered different practice cases and situations, I identified gaps in the existing framework and noted down necessary improvements.

It took about a month of practice, a few hours a day, before I was able to craft a good personalized framework. For this framework, I focus on the following aspects:

1. Incorporating details and modifications that emphasized my strengths and knowledge.
2. Developing "go-to" responses that matched my style.

Then, I needed another month of practicing mock interviews to refine my framework every few days and incorporate feedback from over 40 experienced PMs I practiced with. Here is my study schedule to provide you with some inspiration.

My 6-month preparation timeline

Phase 1 - From 0 to 1

- **Goal**: Understand basic knowledge crucial for a PM interview

- **Duration**: 2 months, dedicating 10-20 hours / week. Half of this period was dedicated to technical training, tailored for Google's technical PM roles. If you're not aiming for a technical PM position, you can reduce this timeframe by one month.

- **Prerequisite**: Familiarity with foundational PM interview books like "Cracking the PM Interviews" and "Decode and Conquer" is assumed.

Summary of Phase 1 weekly plan

Week	Topics to review, research in preparation developing own framework
1	**[Product Design] New product / feature design steps** [1] User segmentation / persona [2] Customer journey and needs [3] Customer research methodology (UXR) [4] Feature / Solution analysis – How to prioritize 10x (breakthrough) solutions. [5] Design – Developing high-level UX flow and implementing analytics events → Develop a custom framework built on the existing CIRCLES framework
2	**[Product design] Incorporating 10X Thinking.** [1] Brainstorming strategies: E.g., IDEO methodology, "what if" questions, etc. [2] Stay updated on major trends in various industries (to help with lateral innovation)
3	**[Product Strategy]** [1] Defining goals: what are the common goals that can be applied to all scenarios? [2] Evaluate market opportunity using tools like Porter Five Forces, competitor analysis, etc. [3] Establish success metrics. [4] Understand the characteristics of a successful product. [5] Factors that influence product prioritization.
4	**[Product strategy] Steps for Market Entry** [1] Phases of launches [2] Determine success metrics for each phase. [3] Optional - Marketing strategy and community strategies. [4] Address additional aspects such as security, privacy, technical scalability, down time, internationalization, legal, etc. **[Analytical] Metrics and Data collection** [1] Monitor the user funnel: Discovery > Activation > Engagement > Monetization > Ads. [2] Collect data through product analytics, surveys, qualitative 1:1 or group feedback, and A/B testing. **[Analytical] Analyzing Metrics Fluctuations.** [1] Prepare a set of follow up questions for root cause analysis. [2] Communication approach with stakeholders. [3] Ways to develop actionable remediation steps.

Week	Topics to review, research in preparation developing own framework
5	**[Technical] Data** [1] Data structures (Arrays, Linked List, Trees, Graphs, Hash table, Stacks, Queues). [2] Database designs: pros and cons. (Indexing, Replication, Transactions, Keys, triggers, join types, Design decision)
6	**[Technical] Operating systems** [1] Processes, threads, concurrency issues. [2] Locks, mutexes, semaphores and monitors how they work. [3] Deadlock and live lock and how to avoid them. [4] What resources a process needs, and a thread needs, and how context switching works, and how it's initiated by the operating system and underlying hardware. [5] Fundamental of modern web design
7	**Web knowledge** [1] Cookies, Sessions [2] HTML, CSS, XML, JSON [3] REST vs. RPC [4] DNS, TCP/IP [5] HTTP / HTTPs [6] Web vulnerabilities (XSS, SQL injection) [7] AJAX [8] UDP
8-9	Review all frameworks

Phase 2 - Deepdive

- **Goal**: Create my own frameworks for PM design, strategy, analytical, and technical interviews. Practice 1-2 questions / daily and schedule mock interviews in phase 3.

- **Duration**: 1-2 months, dedicating 10-20 hours / week.

- **Materials used**:

  1. Start with notes and framework from phase 1, then build on top of it to create more unique frameworks.

  2. I also checked out videos and resources online to gather interesting questions and example answers. To list a few:
  i) Exponent Youtube channel: has a few good mock interviews that are worth watching.
  ii) The Product Manager Interview book by Lewis Lin: I

skimmed through this for interesting question ideas.

iii) Productmanagementexercises.com: offers example answers varying in quality; helpful to see diverse approaches and thinking demonstrated by other candidates.

iv) For technical resources, I found the books "Swipe to Unlock" and "Desiging data-intensive applications" highly useful. Additionally, the "Grokking the System Design Interview" course on educative.io prepared me well for the technical aspects of the interviews.

Summary of Phase 2 weekly plan

Week	Topics
1	**Framework to review & finalize:** Product design. **Sample questions** • Design a smart shoe. • Design a high-tech gym. • Design camera for the blind. • Design a teleportation machine interface. • Design the fridge for the future.
2	**Framework to review & finalize:** Product improvement. **Sample questions** • Pick a product and tell me how you would improve it? • Improve Google Maps / Google Photos / Gmail / YouTube. • Improve garage door opener / dishwasher.
3	**Framework to review & finalize:** [Analytical] Estimation. **Sample questions** • How many police officers are there in the US? • How much storage do you need for Google Maps • What's the potential market size for [product X]?
4	**Framework to review & finalize:** [Analytical] Metrics & diagnosing metrics problem. **Sample questions** • YouTube's video engagement dropped by 15%. What would you do? • How would you measure success of [Google Calendar / YouTube / etc.]
5	**Framework to review & finalize:** [Strategy] Tradeoff, new market entry, CEO-level issues and strategy, pricing. **Sample questions** • Should Google enter the grocery industry / ride-sharing market / etc.? • What should LEGO do in 1 year? 5 years? 10 years? • What is an area that [Google / or any other company] underinvested? • Should YouTube enter the [Africa / Portugal / etc.] market? • Why did Google acquire Fitbit?

Phase 3 - Home run

- **Goal**: Mock interviews and perfecting own frameworks.

- **Duration**: 2 months, averaging 2-3 mock interviews / week.

- **Materials used**: Personal notes from previous phases. At this stage, additional books or materials might not be necessary. Focus on extensive practice and refining your frameworks.

- **Notes**: I recommend practicing with calibrated PMs, experienced in interviews, for valuable feedback. Peer interviews are useful for exploring different approaches, especially when building confidence. However, in the final 1-2 months leading up to your interview, prioritize mock sessions with calibrated PMs, as they significantly enhance performance.

Summary of Phase 3 plan

1. **Self-Practice:** Dedicate the initial two weeks of Phase 3 to practicing independently. Aim for 3-4 questions daily, writing down detailed answers.

2. **Mock Interviews:** After every interview, I take the time to sit down and add notes, refining my frameworks to incorporate the feedback received. The following are the number of interviews I have gone through.
   - 3-5 Technical mock interviews (for technical PM roles)
   - 5-15 Product design mock interviews
   - 5 Strategy mock interviews
   - 5 Analytical mock interviews
   - 5 Mixed interviews covering all areas

In total, it took me almost six months of practice to pass my PM interviews at Google on the first attempt with a "Strong Hire" overall rating (Google has a 1-4 scale rating for each interview: 1 = No Hire, 2 = Leaning No Hire, 3 = Hire, 4 = Strong Hire and you will probably need 3 to 4 Hire / Strong Hire to pass comfortably).

But this doesn't mean you need 6 months

The aim of this book is to minimize your preparation time significantly. I'll provide you with a set of frameworks that is the results from my 6 month practice, allowing you to bypass or considerably shorten Phase 1 and Phase 2. Phase 3 remains crucial for your success, so ensure not to skip the mock interviews and refining your framework.

Remember, the more you experiment with your recipe and refine your skills, the more impressive your dish will be to the diner!

My Product Design Blueprint

(use at your own risk)

Framework Facts

Unlimited uses per framework

Serving size   **1 interview**

Amount per serving

Standout   1000

% Daily Value*

Asking good questions	**250%**
User Sympathy	**3000%**
Understand user segments	**2600%**
Prioritize the right needs	**400%**
Walk in the users' shoes	**7500%**
Thinking 10X	**10000%**
Innovative concepts	**5000%**
involve product deconstruction	
Effective prioritization	**500%**
Mastering metrics	**300%**

* The % Daily Value (DV) is based on the top 10% of PM interview candidates at big tech companies

If you absolutely insist on an abbreviation to remember the framework below, behold: **COUPSMOG**.

I know, not exactly a masterpiece! I couldn't conjure up a snazzier abbreviation, so I'm resorting to the power of doodles instead. I'm a visual thinker – images stick better in my mind. And if you're anything like me, brace yourself for these amusing sketches that will hopefully jog your memory!

The framework has two parts. The first part focuses on **Problem Understanding**. This part aims to create clear and precise problem statements that define what you intend to solve in the second part.
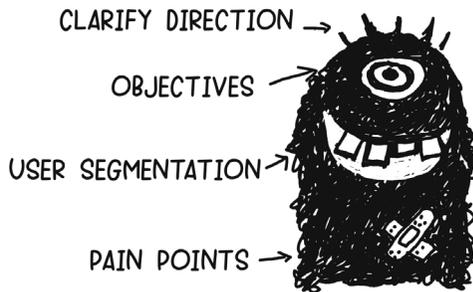
Step 1. Clarify

• Clarify important 'keywords' in the question such as what does the product do, its pros and cons, etc.
• Narrow down market to focus on (location, type of products, etc.)
• Clarify constraints

Step 2. Objectives

• **Clarify or assume objectives** when building or improve a product

• **Common goals:** RUED-BS (Revenue - Users - Engagement - Gain Data - Branding - Synergies / helping other products)

Tips: For newer products, focus on User Adoption and Retention; for mature products, emphasize Engagement and

Revenue.

- **Why?** If the interviewer asks you to decide on the objectives and give reasons why, consider selecting:
  1. Goals that align with the company's mission
  2. Goals that create synergies with other products in the company
  3. Goals that leverage the company's strengths or address its weaknesses
  4. Goals that help the company stay competitive given the industry trend.

Step 3. User segmentation & prioritization

- Identify at least three segments or apply at least two segmentation methods. Then, focus on the method that highlights the most significant differences in product preference or usage patterns.

- Four popular user segmentation methods:

  1. **Demographic Segmentation:** divides the market based on measurable characteristics such as age, gender, income, education, marital status, and occupation.

  2. **Geographic Segmentation:** divides the market based on their location, such as country, city, climate, or urban/rural areas.

  3. **Psychographic Segmentation:** delves into customers' lifestyle, values, interests, and personality traits. This method helps create a deeper understanding of customer behavior. E.g., Environmentally conscious consumers, Foodies, etc.

  4. **Behavioral Segmentation:** analyzes customers based on their behavior & usage patterns, purchase history, and product interactions. E.g., an online streaming service might offer tailored recommendations to users who frequently watch action movies, while promoting family-oriented content to those who frequently watch children's shows

- To make it memorable and relatable, you can name each segment with an easy-to-remember name such as "Mary the Mom", "Bobby the Bartender", etc.

- Choose **one** segment to focus on based on at least one of the following criteria:

  1. **Scope:** Select the segment with the highest number of users.
  2. **Potential Need Gap:** Opt for the segment that is more underserved.
  3. **Market Saturation:** Choose the segment with less competition

Step 4. Pain points

- **Go through the user journey** to identify pain points. Using specific examples shows understanding and empathy for user issues.

- **Identify the functional and emotional needs** of the target user group. Many candidates list general needs applicable to a broad audience, undermining the purpose of user segmentation and prioritization.

  1. **Functional Needs:** Essential, practical requirements a product must fulfill. Examples of my most-mentioned functional needs:
     - **Motivation:** Users need motivation to act or obstacles removed for tasks.
     - **Aesthetic / Customization:** Users want better design, more options, and personalization to adapt to preferences/habits.
     - **Discovery:** Users need to find information, ideas, or learn new skills / knowledge that directly contributes to their advancement.
     - **Execution:** Users want to perform tasks faster & more efficiently.

  2. **Emotional Needs:** Relate to user feelings and experiences. Examples of my most-mentioned emotional needs:
     - **Fun**: The need for enjoyment, playfulness, and lighthearted experiences that bring joy and laughter.
     - **Autonomy:** The desire for independence, freedom, and the capacity to make personal choices and decisions. This need is particularly strong for younger and older user groups, as they navigate stages of life where dependence on others remains a factor.
     - **Purpose**: Feeling direction and meaning through work,

relationships, or achievements.
- **Affection:** The desire for warmth, love, and physical or emotional closeness with others.

- **Prioritize**: Choose **1-2** top user needs to focus on based on Urgency of needs. Urgent = Painful + Happen frequently.

––––––––––

The second part focuses on **Developing Solutions.**
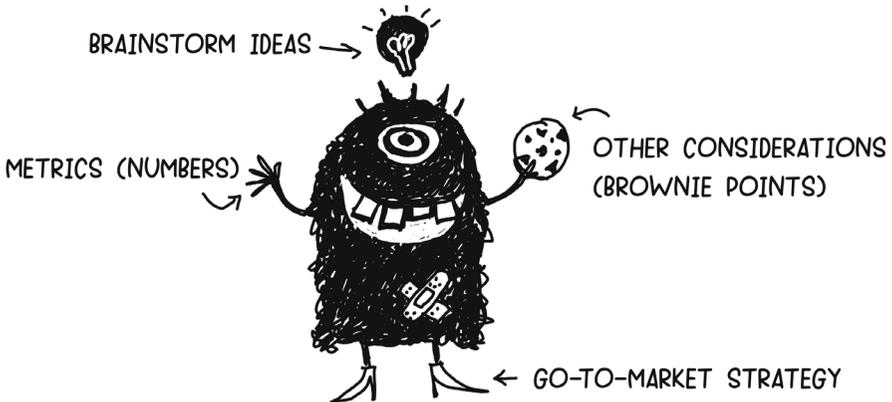
Step 5. Solution brainstorming & prioritization

- **Vision:** Begin with the ambitious vision to set the context.

- **Ideas:** list out 3-6 ideas that support your vision, starting with straightforward concepts and progressing to creative ones. Include at least 1 moonshot ideas that would deconstruct the product (think about a car vs. horse). A few useful tips:
  - The best way to come up with ideas is to pepare a versatile list of ideas applicable in various situations.
  - Use drawings for clarity when applicable.

- **Consolidate solutions**: If time permits, summarize the comprehensive solutions, then explain how the users would use the product from onboarding to subsequent uses.

- **Prioritize** solutions by selecting at least one criterion. Then, choose the top 1-3 solutions for the MVP (Minimum Viable Product). Categorize the remaining solutions as Nice to Have or Reserve for Medium Term/Long Term. I typically consider the following criteria:

  1. **Impact:** How effectively it solves the problem identified in the previous section. And how effectively it contributes to achieving our initial goals.
  2. **Effort:** How easy or difficult it is to build the solution.
  3. **Wow factor:** its ability to create a delightful user experience.

Step 6. Metrics (Optional)

- During the interview, inquire if the interviewer want you to explain your approach to measuring success. Don't list out all metrics in frameworks like AARRR. Instead, select the most relevant ones aligned with the initial goals.

- I sometimes discuss avoiding metrics like website traffic and app downloads because they're often vanity metrics. This shows my careful approach to metrics, not blindly relying on standard frameworks.

- If dealing with multiple user categories (e.g., Youtube have 3 user groups: viewers, creators, advertisers), identify the critical metrics for each group.

- Some of my favorite metrics include:
  - Engagement: Frequency and duration of user interactions with features.
  - Revenue: Average payment and customer lifetime value (LTV).
  - Retention: Percentage of users returning after specific time intervals (e.g., one week, one month).

Step 7. Other considerations (Optional)

- This is my favorite step. It's optional, but I almost always include it in my answer since it showcases my critical thinking skill (believe me you will get a few extra brownie points for this).

- In this section, evaluate your ideas objectively to show that you don't blindly endorse concepts without acknowledging their risks.

- You should develop your own go-to list of concerns. But here are examples of some concerns that I frequently use:
  1. Sustain user interest over time, avoiding novelty wear-out.
  2. Trust and data security / privacy
  3. Avoid being creepy (particularly for AI features)
  4. Scalability - How easy it is to scale to other markets
  5. Cannibalization with other products (However, it's still preferable to compete with ourselves than to lose customers to competitors)
  6. Decision paralysis often occurs, particularly when we introduce too many features.

Step 8. Go-to-market strategy (Optional)

- In product design discussions, detailing the Go-To-Market (GTM) strategy might not always be necessary. However, if you are asked, provide a brief walkthrough of the following:
  1. 4P strategy: Product, Price, Promotion, Placement (You can Google this - it's a standard strategy framework)
  2. Roll-out phases & Test plan (E.g., A/B test, user research, etc.)

P.S. I intentionally excluded a few valuable tips from this framework as I believe they are better demonstrated through examples. Refer to my sample answers section for these.

Check out a quick snapshot of my Design Master Framework that I've used in many interview practices and real interviews!

DESIGN MASTER FRAMEWORK

1. **Clarify**: market, timing, constraints
2. **Assume goals** & why does it matter for Google
   a. Goal: Adoption & Retention if new product; Engagement & Revenue if existing product → Be specific. Call out metrics
   b. Why: Mission > Synergies (Search, Ads, Youtube, Android, Shopping) > Strength vs. Weakness > Competition

3. **[Opt if technology is given] Clarify technology**: Size, cost, who can use it, limitation (pros & cons)
4. **[Opt if product is vague] Value chain + Competitor**: to decide where to play. Avoid saturated market or no expertise

5. **Target users** & choose one based on scope and potential need gap (or market saturation)
   a. **List at least 3:**   or generic sol doesn't meet some special needs
      i. Supply-side (advertisers, developers, content creators, sellers, site managers) ↳ chance to differentiate
      ii. Regular consumers (kids, parents, senior, disable people, teachers, hobbyist, workers, internationals)
      iii. Enterprise (small, big, government, school, or by industry: supply chain, health, entertainment, food, edu))
   b. **Can use persona** as well → Name them to make it memorable. Mary the mom!

CONTEXT + 6. **User Journey & painpoints** & rank based on urgency + USER GOAL (why do they use it in the first place)
why the prod
exist OR in   a. 3 needs: Functional, Emotional, Developmental   e. Make sure it's tailor to the product
what situation   b. 3 type of needs: Motivation / Friction > Discovery > Execute   area by explaining how its different
is it being used   c. Make it painful & emotional   (e.g. gardening vs. other hobbies)
   d. (Link back) to ensure it's relevant and specific to chosen target group
   // Summarize challenge statement "want to help X to overcome Y" → fall in love with it!

7. **Solution brainstorming**, rank based on impact / how well it solve the problem & [opt] effort
   a. Discuss consideration: long-tail or top-tier focus? Particular needs for certain languages / topics / etc.
   b. Discuss moonshot vision, then anything in between:
      i. The super long term vision is to make it so easy you don't even have to learn how to use it... I put money in my bank account, sign up, then walk away and become millionaires in 10 years. But... to get there, a couple of realistics milestones / ideas are... (ii) if we could partner w/ Google ..
      ii. Moonshots should deconstruct the product → think about the product goals and find alternatives (horse vs. car)

g. Tips: if adoption   c. Summarize at the end a comprehensive solution: + DRAW
is a goal, add   i. Combining into one big solution, or quickly go through onboarding process → first use → second use
solution that   ii. If we need new data, mention how we can collect them   Tips: use analogy (easy to
get p.p to invite   d. **Tips**: Mention current events is a plus (COVID, WFH)   remember NAME of solution)
others (marketplace,   e. **Tips**: Can mention user trends like Health & ergonomic, self-assembly, social proof, IoT, citizen developer,
community)   transparency & traceability, experience economy
   f. Tips: Be crisp if you think a solution is NORMAL (e.g voice assistant)
8. **[Opt if monetization question] Pricing model**: freemium, bundling, pay-as-you-go, subscription, razor and blades, tier-
9. **[Opt if strategy question] Strategy recommendation**: for what to build in short vs. long term

10. **Evaluation & metrics**
    a. Concerns: maintain interests / safety / data security / creepy / abuse / fareness / accessibility + MARKET SIZE + PRICE
    b. Metrics: tie back to goal, then explain how to use those metrics to make decision (e.g. baseline comparison)
11. **Summary & Elevator pitch**: Be good at storytelling here! Create an exciting bigger mission.
12. Launching MVP   ① 4Ps : Product, Price, Promotion   Maybe do first before

EVALUATION FRAMEWORK   ② Test plan : Metrics   manual, not personalized.   Metrics
1. How easy is it to do the job   ③ Roll out phases : Objective   **WORDS TO USE**   + explain WIN-WIN-WIN
2. The way it makes me feel (like a professional?   → Metrics   - Friction
   Happy? connected?)   - Hypothesis, validate hypothesis, testing solution
3. WOW factor - surprise me!   - The market is saturated with lots of existing product
     so I want to focus on something we can really
Problems: Price, Target market (too niche/ generic), Cost of   differentiate
using (distracting, easy to lose, time taken to learn), too

Common User Segments & Their Needs

You don't want to struggle during user segmentation section in the heat of the moment during an interview. Instead, dive deep into various user segments beforehand. Through thorough preparation and consistent practice, this knowledge will become second nature, allowing you to grasp different user segments effortlessly. This proficiency not only benefits your PM interview but also enhances your PM career.

"Customer sympathy" isn't innate; it comes from preparation and extensive practice until it becomes intuitive. To reach this level of understanding, I dedicated days and weeks to observing and analyzing various common user segments. Below are a few I've identified and utilized frequently during interviews. Use these as a starting point and build upon them by observing people in various settings like workplaces, streets, or events.

1. Kids (6-12 years old)

How are they different
- Limited reading ability
- Short attention span
- Often require adult supervision

Common concerns
- Prone to dangerous situations

Most important needs and example solutions
1. Entertainment: Gamified and themed products
2. Ease of Understanding: Customized kid-friendly or cartoon-like voiceovers
3. Ease of Control: Hand or voice-controlled interfaces
4. Safety: GPS tracking for security
5. Education: Bite-sized educational content to prevent boredom

2. Teenager (12-17 years old)

How are they different
- Emotional turbulence

- Pursuit of thrill and independence

Common concerns
- Adopting negative habits from peers

Most important needs
1. Puberty Guidance: Managing adolescent challenges and changes.
2. Social Skills: Learning body language, emotional awareness, and self-control.
3. Independence: Managing homework, finances, and part-time jobs.
4. Social Circle: Building a positive social network.
5. Health Awareness: Understanding physical and mental changes.
6. Online Safety: Responsible internet and social media use.
7. Academic Support: Accessing tutoring and resources.

3. College students

How are they different
- Financial constraints
- Career uncertainty
- Require guidance for adulthood and new environment

Common concerns
- Stress and uncertainty about the future

Most important needs
1. Career Guidance: Career planning and mentorship.
2. Time Management: Balancing work, homework, and jobs.
3. Teamwork Skills: Developing collaboration and leadership abilities.
4. Communication: Effective communication with family and friends.
5. Resource Management: Buying and selling school equipment.
6. Gaining experiences: travel and study exchanges.

4. Senior people

How are they different
- Limited ability to do tasks independently
- Feelings of loneliness

- Need for emergency assistance

Common concerns
- Difficulty adapting to new technology

Most important needs
1. Social Connectivity: Staying in touch with friends and family.
2. Emotional Well-being: Combating feelings of loneliness.
3. Emergency Support: Access to immediate medical assistance.
4. Mobility and Transportation: Enhanced mobility and accessible transport.
5. Tech Assistance: Help with adopting and using new technology.
6. Nutrition: Access to nutritious meals and dietary assistance.

5. Teams

How are they different
- Slower decision-making due to the need for consensus.
- Emphasis on team culture.
- Crucial reliance on effective collaboration tools.

Common concerns
- Lack of communication leading to overlapping tasks.
- Interpersonal conflicts among team members.

Most important needs
1. Enhanced Collaboration: Improved tools for seamless communication and idea exchange, streamlined processes for faster decision-making, and clear communication channels to prevent misunderstandings.
2. Effective Feedback: Implementing a fair feedback mechanism.
3. Skill Development: Providing opportunities for skill enhancement and growth within the team.
4. Positive Culture: Maintaining work-life balance, organizing team activities, implementing conflict resolution mechanisms, and recognizing team achievements.

6. Artists

How are they different
- Constant need for inspiration and collaboration with fellow artists.
- Sales are essential for earning income

Common concerns
- Creative block hindering productivity.
- Challenges in selling artwork.

Most important needs
1. Creative Inspiration: Access to continuous ideas and inspiration.
2. Artist Collaboration: Opportunities to collaborate with peers.
3. Sales and Reach: Strategies to sell artwork and expand audience.
4. Mobile Tools: Lightweight tools for flexible work locations.
5. Professional Tools: Access to high-quality, customizable artistic tools.
6. Feedback and Critique: Constructive input for skill enhancement.
7. Opportunities & platforms to display artwork.

7. Atheletes

How are they different
- Will invest in anything offering marginal improvement.

Most important needs
1. Performance Analysis: Tools for in-depth performance analysis.
2. Diet Monitoring: Keep track of nutrition and diet.
3. Coaching and Partners: Find reliable coaches and practice partners.
4. High-Quality Equipment: Access smart and effective sports equipment.
5. Physical Therapy: Support for injury prevention and recovery.
6. Competition Opportunities: Participation in quality competitions.

8. Young professionals

How are they different

- Always busy, prioritize time efficiency.
- Focused on career advancement
- Want new experience

Common concerns
- Limited time for other activities.
- Unhealthy due to work-related stress and workload.

Most important needs
1. Career Advancement: Guidance to navigate the workplace and progress in their careers. Need platforms to connect with peers and mentors.
2. Skills Enhancement: Developing leadership, soft skills, and receiving regular feedback.
3. Work-Life Balance: Maintaining a balance between work and family life.
4. Time-Saving Solutions: Efficient methods for daily chores like cooking and laundry.
5. Health and Exploration: Finding time for fitness, travel, and diverse experiences.
6. Financial Management: Support in budgeting, savings, and investment planning.

9. Managers / Leaders

How are they different
- Responsible for managing relationships, employees, and feedback cycles.
- Must track trends and tasks for effective leadership.

Common concerns
- Stress from busy schedules.
- Limited feedback for career improvement.

Most important needs
1. Leadership Skills: Continuous improvement in leadership and feedback skills. Access to mentors and peer learning opportunities.
2. Relationship Management: Strategies for managing professional relationships.

3. Task Management: Efficient methods for managing tasks and workload.
4. Trend Tracking: Tools to monitor industry trends and organizational data.
5. Team Building: Strategies for building and nurturing cohesive teams. Skills for resolving workplace conflicts.
6. Decision-Making Support: Resources for making informed and timely decisions.

10. Startups / Small businesses

How are they different
• Limited funds but willing to invest in survival strategies.

Common concerns
• Limited budget for various needs.

Most important needs
1. Affordable User Testing: Accessible and cost-effective user testing solutions.
2. Outsourced Tasks: Accessible services for essential tasks such as legal, accounting, and marketing.
3. Funding Opportunities: Resources for finding funding and investment options.
4. Talent Acquisition: Strategies to attract skilled professionals and compete with larger companies.
5. User Acquisition: Effective methods for acquiring new users and expanding customer base.
6. Technology Solutions: Affordable tech solutions for various business operations.
7. Mentorship: Access to experienced mentors for guidance and advice.

11. Big companies

How are they different
• Abundant resources

- Marginal improvements can lead to significant impacts.

Common concerns
- Slowness in responding to innovations and market shifts.

Most important needs
1. Building Trust with users and establish & strong branding.
2. Smart and swift delivery of products/services.
3. Effective management of inventory & accurate demand forecasting to prevent overstocking or shortages.
4. Rigorious User Testing for product improvement.
5. Streamlined processes to incorporate innovations.
6. Reliable channels to gather and act upon customer feedback.
7. Talent Retention.
8. Ensuring adherence to industry regulations & compliance standards.
9. Planning and execution of global market expansion strategies.

12. Expert

How are they different
- Quick to adopt products and exhibit brand loyalty, often targeted for upselling.
- Price is a secondary concern compared to quality and features.

Most important needs
1. Personalized Tools: Tailored and efficient tools to enhance their expertise.
2. Portfolio Creation: Platforms to showcase their work and demonstrate skills.
3. Brand Building: Strategies for building a personal or professional brand in their field.
4. Collaboration Tools: Effective tools for collaborating with other experts on projects.
5. Customer Acquisition: Methods to find and attract customers, along with effective sales strategies.
6. Continued Learning: Resources for ongoing education and skill enhancement.
7. Professional Recognition: Opportunities for awards, certifications,

and industry recognition.

13. Amateur

How are they different
- Prioritize quick and effortless ways to appear polished.

- Value convenience and simplicity in understanding.

Common concerns
- Impatience, seeking faster processes and results.

Most important needs
1. Professional Appearance: Easy templates and actions.
2. Step-by-Step Guidance: Prevent overwhelm with structured learning.
3. Fast Learning: Quick materials, efficient techniques for speedy tasks.
4. User-Friendly & Affordable Tools: Intuitive interfaces, free resources.
5. Community Support: Advice, inspiration, and encouragement.

14. Hobbyist

How are they different
- Enthusiastic about browsing and finding inspiration for hours.
- Passionate about connecting with others who share their interests.

Most important needs
1. Collectible Acquisition: Efficient tools for finding items.
2. Community Engagement: Platforms to connect with like-minded individuals and find new ideas
3. Personalized Learning: Tailored learning resources from peers.
4. Event Updates: Information on hobby-related events and fairs.
5. Item Trading: Tools for exchanging hobby items.
6. Organizational Resources: Solutions for storing materials.
7. Customization Tools: Personalizing hobby-related items.

15. Low income

How are they different
- Reluctant to pay for apps unless significant savings are evident (consider ad-supported models).

Most important needs
1. Discount Search: Tools for finding and remembering discounts and deals.
2. Expense Management: Resources for effectively managing household expenses to save for significant purchases.
3. Job Search Assistance: Platforms connecting them with employment opportunities.
4. Community Support: Platforms facilitating community assistance and support initiatives.

16. High income

How are they different
- Prioritize the feeling and experience associated with purchases.

Most important needs
1. Charitable Giving: Tools to find reputable charitable organizations for donations.
2. Collectibles Acquisition: Efficient platforms for finding and acquiring rare collectible items.
3. Social Validation: Platforms to showcase and share their purchases, enhancing their social status.
4. Experiential Purchases: Access to exclusive experiences and events.
5. Private Services: Access to exclusive, personalized services for various needs.
6. Networking Events: Access to exclusive social and professional networking events.

17. Friends & Siblings

Most important needs
1. Shared Activities to spend quality time together.
2. Memory Preservation: Tools for recording and preserving shared memories, photos, and experiences.
3. Effortless Communication: Apps for easy contact and event scheduling.
4. Emotional Expression: Assistance in expressing emotions such as love, gratitude, and apologies effectively.
5. Gift Ideas: Suggestions for thoughtful gifts tailored to each other's preferences.
6. Collaborative Projects: Platforms for working on joint projects or creative endeavors.
7. Shared Shopping Lists: Apps for creating and sharing shopping lists for joint purchases.

18. Parents

How are they different
- Willing to invest significantly in their children's future and safety.

- Key influencers if products or services are designed for children.

- Good word-of-mouth referrals can be expected from satisfied parents.

Most important needs
1. Child Safety: Tools for controlling kids' location and schedules, ensuring their safety.
2. Personalized Parenting Advice: Recommendations for personalized parenting techniques and methods.
3. Educational Engagement: Platforms for discussions with teachers and doctors regarding child's progress.
4. School and Extracurricular Search: Resources for finding reputable schools and extracurricular activities.
5. Child Entertainment: Recommendations for age-appropriate

entertainment and learning resources.

6. Transportation Solutions: Services for transporting kids to and from home, school, and activities.

7. Effective Communication: Easy communication channels with kids to stay connected.

8. Quality Time Activities: Ideas for fun, bonding activities parents can enjoy with their children.

9. Parenting Community: Access to a community of parents for sharing experiences and advice.

10. Stress Management: Resources for stress relief and personal hobbies outside of parental responsibilities.

11. Family Health & Wellness: Access to information and services promoting family health and well-being.

12. Financial Planning: Tools for managing finances and planning for children's future needs.

19. Couples

How are they different
• Willing to invest in enjoyable and memorable experiences together; value recording these moments.

Most important needs
1. Shared Activities: Suggestions for activities and outings that enhance their bond. Tools for planning vacations together.

2. Expense Management: Tools for managing shared expenses, budgets, and financial goals.

3. Long-Distance Connection: Shared online experiences and platforms for virtual togetherness.

4. Calendar Management: Platforms for coordinating and managing shared schedules and events.

5. Memory Preservation: Apps for recording and preserving shared memories, photos, and special moments.

6. Relationship Advice: Resources for strengthening communication and understanding in relationships.

7. Gift Suggestions: Recommendations for thoughtful gifts tailored to each other's interests.

20. Blind / Deaf people

How are they different
- Family members often assist in making purchasing decisions.

Most important needs
1. Communication Tools: Devices for expressing thoughts and needs.
2. Safe Mobility: Independent transportation options.
3. Object/Tool Control: Smart devices for control via gestures, voice, or touch.
4. Emergency Alerts: Systems for safety notifications.
5. Social Inclusion: Platforms for community connection.
6. Accessible Entertainment: Options like audio-described movies.
7. Healthcare Access: Services for managing medical needs.
8. Employment Opportunities: Job resources and accommodations.

21. People in new environment (moving to new place, internationals / immigrants)

How are they different
- Eager to make new friends and explore places with positive reviews.

Most important needs
1. Explore Local Areas: Discover trails, event venues, and popular spots around town.
2. Social Connection: Meet and remember new people.
3. Accommodation Search: Find affordable housing options.
4. Local Services: Locate and access essential services such as healthcare, utilities, and public facilities.
5. Language Assistance: Resources for learning and understanding the local language.
6. Transportation Information: Access to public transport details and routes in the new area.
7. Cultural Integration: Guidance and support for integrating into the local culture and customs.

Rocketing to Moonshot Ideas

How to generate moonshot ideas

In 1961, President Kennedy vowed to put a man on the moon within a decade, sparking a journey marked by doubts and challenges. Fast forward eight years, Neil Armstrong's historic moonwalk captivated 600 million viewers.

The tale of NASA's moon landing exemplifies the essence of moonshot ideas. In today's product manager interviews, the ability to conceive such bold concepts is vital. Just as NASA's moonshot led to groundbreaking innovation, PMs equipped with these ideas empower organizations to innovate and outpace the market. That's why Google product manager interviews frequently assess candidates based on their creativity and ability to generate moonshot ideas.

Generating moonshot ideas in an interview is more challenging than segmenting users on the spot. Interviewers have heard countless ideas, making it crucial to move beyond common suggestions like simply "applying AI to idea / product X". To stand out, you must combine diverse concepts from different fields and industries, applying them in unexpected ways.

To generate moonshot ideas, I follow two steps:

1. Gather a stash of wild ideas as foundation for brainstorming.

2. Spice things up with creative prompts to make these ideas even more unique and creative.

Let me break down each step for you.

Step 1: Ideas on Tap

When preparing for my Google PM interview, I researched thousands of startups and compiled a list of top concepts applicable across various industries. In this section, I'll share my favorite ideas that I reviewed daily in the weeks before my official interviews. Some concepts might seem brief, possibly unclear to you, but I trust they provide a glimpse into the range of ideas I've documented and my method of recording

them. I encourage you to create your own list since it's the most effective way to remember and recall ideas. But feel free to use mine as a starting point.

A. Smart / ML / Futuristic ideas

1. Pre-emptive Problem Alerts: Identify potential issues in advance, allowing proactive preparation and prevention.

2. Food Wastage Detection with Computer Vision: Utilize computer vision to identify discarded food, aiding in waste reduction and management.

3. Content Exploration and Translation: Utilize machine learning and search data to explore content trends. Combine with translation for international content exploration.

4. A-for-Tomorrow Delivery Service: Predict demand and deliver items in advance. Notify users when items in their cart are nearby for added convenience.

5. Emergency Kit Delivery Drone: Deploy drones for swift delivery of emergency kits, ensuring faster response times than ambulances.

6. Automatic Retrieval Robot: Use image recognition for automatic retrieval of items like dirty clothes, dishes, or food on the ground.

7. Satellite Imaging and ML: Combine satellite images with machine learning to detect and analyze events on Earth, enhancing surveillance capabilities.

8. Organize Fairy with ML: Auto-organize items on your computer based on themes, dates, interactions, etc., utilizing machine learning algorithms.

9. Trend Alerts: Notify users about emerging trends, guiding their actions in areas like fashion, internet browsing, and online shopping.

10. Anti-Theft Measures with ML: identify and prevent theft, scams, and plagiarism.

11. Google Garage Features:

- One-Click Booking
- Maps with traffic light & object detection
- Face recognition for GPay quick payments and security

12. Summarization and Comparison Services: Provide summarization services for articles, news, etc.

13. Enhanced Reviews: Utilize multimedia (e.g., YouTube videos) to enhance product reviews, encouraging more informed purchasing decisions.

14. Dynamic Menu on Google Restaurant Search: Personalize restaurant menus based on user preferences and trends/events.

15. Joint Promotions: Offer joint promotions for users visiting one store, extending coupons for another store, enhancing user engagement on Google Maps/Shopping.

16. Dynamic Incentives: Provide tailored incentives based on user profiles and preferences.

17. Delivery Robots

18. Inventory Planning with Demand Forecast: Plan inventory based on (Google / Amazon) search volume, optimizing stock levels and reducing wastage.

19. Remote and Machine-Assisted Surgery: Implement remote surgery or machine-assisted surgery techniques for advanced medical procedures.

20. Automatic Shelfing with Image Recognition: Utilize image recognition to automatically place items such as books or food in their designated locations.

21. Selective Reading Assistance: Highlight content based on user preferences and reading history.

22. 3D Scanning for Security: Enhance security measures using 3D scanning technology, providing accurate and reliable results.

23. Simulation for Smart Vehicle Collision Avoidance: Use simulations to predict and avoid collisions involving smart vehicles.

24. Pothole and Accident Detection: Use distance measurements with the "Measure App" to detect potholes or accidents on the ground.

25. Flexible Seat Booking for concerts / events to accomodate diverse audience sizes.

26. Dynamic Traffic Lights: Control traffic lights dynamically based on simulations, machine learning, and image recognition for optimized traffic flow.

27. Return Customer Coupons on Google Maps: Display coupons on Google Maps to incentivize users to bring friends and return to businesses.

28. Item Auto-Collection Robot: Deploy robots to automatically collect items like toys or tennis balls.

29. Firefighting with Low-Frequency Sounds: Use low-frequency sounds to prevent the escalation of small fires into larger ones, aiding firefighting efforts effectively.

B. Community / Crowd-source / Marketplace

30. Collab Club: Connect YouTube creators based on their skills and celebrity score, facilitating online meetings through anonymous chat without disclosing personal information.

31. Marketplace for Creators: Sell customized images/videos using Google Photos/Youtube tools, ensuring fair payment based on ML pricing algorithms.

32. Micro-Collaborator Platform: Enable micro-collaborations between individuals, fostering diverse creative partnerships and projects.

33. Community Data Gathering: Utilize crowd-sourcing to collect valuable data about streets and environments, including noise levels, potholes, and other essential information.

34. Consultant Marketplace: Establish a platform for professionals and writers to offer expertise, connecting them with individuals or companies seeking specific knowledge.

35. Senior Freelancer Program: Match experienced seniors with

expertise to businesses or families in need of their skills, creating mutually beneficial partnerships.

C. Educational

36. Learning Pairs: Create a platform where users are paired based on their language learning goals, connecting, for example, Japanese learners of English with English learners of Japanese, enhancing language exchange experiences.

37. Parental Matched Savings: Encourage kids to save with parental matching.

38. Investment Sandbox: Offer a risk-free space to learn investment strategies.

39. Interactive Rewards: Implement engaging rewards using Tamagotchi and Kryptokitties concepts.

40. Item-Swapping Community: Facilitate swaps (e.g., books) to expand users' resources and foster community.

41. Kid's Active Learning Activities: Promote active learning through storytelling, scavenger hunts, and dancing games.

42. Language Learning Videos: Recommend YouTube videos to help learn English tailored to users' topic of interests.

43. Personalized Vocabulary Lists: Offer individualized vocabulary collections for ongoing learning, derived from the content users engage with in their native language.

D. Productivity

44. Shared Shopping Lists: among neighbors and students, enabling collaborative orders for efficient deliveries.

45. On-the-Go Checkout: Shoppers can check out items individually as they shop, streamlining the process.

46. Google Photos Portfolio Builder: Users can create professional portfolios with a single click, simplifying the process for content creators.

47. Efficiency Templates: Ready-made templates facilitate faster content creation and task completion.

48. Amateur Content Creator Kits: Instant ramen-like kits tailored for beginners, easing the content creation process for amateurs.

49. Friendship Memory Boost: During commutes to meetings with friends, users receive memory reminders and conversation topics to prepare for the social interactions.

50. Automating Business Workflow: streamlines multi-step workflows for small businesses, integrating things such as form submissions, lead scoring, and database management.

51. Smart Grocery Planner: Plan meals based on recipes and health needs, generating tailored ingredient lists and store maps for efficient shopping.

52. Zero-Weight Cart: Shoppers can shop by scanning items using phone or hand-held scanners, eliminating the need for traditional carts.

53. Centralized Business Support: Centralizes support services, monitoring online ratings and comments for businesses in a single platform.

54. Parental Approval System: Parents can grant app permissions via text or a trusted friends' pre-approved list, ensuring child safety online.

55. Cost-Effective Hardware Modularity: Modular design reduces replacement costs for individual parts, enhancing affordability and sustainability.

56. Autoload for Household Items: Automatic loading of soap and detergent in larger quantities for convenience.

57. Remote Chores with IoT: Control household tasks on the go using IoT devices during your commute.

58. Flexible Work Hours Collaboration: Collaborate with various businesses to establish flexible work hours, collectively easing both campus and off-campus traffic congestion.

59. Google Map Traffic Control with Priority Rules: Implement a "5 times priority/week rule" where users can select "I'm late" or "I'm in a hurry." During these times, the system prioritizes shorter routes. At other times, slightly longer routes may be taken for smoother traffic flow.

60. Virtual Queueing: Queue up remotely using the app, no need to be physically present.

E. Practical solutions for daily needs

61. Handshake Stabilizer: Assistive system for shaky hands, ensuring stability in various activities.

62. Customizable Physical Buttons: Buttons linked to user-set actions (e.g., purchasing product, transferring money to saving account, donating), offering tactile control and convenience.

63. Be-My-Eye Cameras: Cameras on blind individuals' clothing, aiding real-time navigation through remote volunteers.

64. Event Etiquette Device: Guides attendees with visual cues at events, ensuring proper behavior without disruption.

65. Refrigerated Shopping Lockers: Secure storage for perishables in shopping centers, enhancing the shopping experience.

66. Variable Speed Controls in Rides: Button allowing passengers to speed up or slow down taxi rides according to preference.

67. Auto-Replay Kids Playlist: Allows children to enjoy favorite videos repeatedly without manual intervention.

68. Inclusive Accessible Maps: Maps highlighting senior-friendly, child-friendly, and disability-accessible routes and areas.

69. Alternate Routes Recommender: Suggests traffic-free places, avoiding main streets and peak hours for a hassle-free experience.

70. Biker Traffic Light Bag: Specialized bag with built-in turning lights, front light, and contour light, enhancing visibility and safety.

71. Smart Toilet Map: Provides real-time restroom availability updates

during large events.

72. Public Bathroom Baby Seats: Wall-mounted seats in restrooms, making it easier for parents to manage their children.

F. Personalization

73. Customizable Presets: Specialized art / tool presets for various purposes while maintaining product simplicity.

74. Personalized Control Symbols: Users control actions using customized symbols or hand gesture tailored to their preferences.

75. Timely Memory Reminders: "Just-in-time" reminders, recalling shared experiences before users message each other.

76. Similarity Indicators: Help people find others that are similar to them through social platforms.

77. Habit-Based Automation: Automation aligns with user habits and patterns, such as phones intuitively knowing when to power off.

G. Other ideas

78. Eco-Friendly Charging Device: Recharges using spinning, solar power, and more.

79. Adaptive Dishwashers: Adjusts size based on load to conserve water.

80. Automated Plant Pots: Self-watering and lighting system.

81. Bacteria-Killing Robots: Roam and clean surfaces.

82. Rent-A-Photographer Service: Enhance business appearance with affordable professional photographers for hire.

83. Pre-Filled Home Paints: for easy home painting.

84. Customizable News Feed: Swipe left/right for preferred topics.

85. Grandparenting App: Stay connected with grandkids and keep up with kids' interests, including popular movies and figures they like.

86. Resource Sharing Platform: Helps small businesses share professional resources like accountants and lawyers.

87. Pick & Go Meal Section: Grab ready-to-go meals and themed packages tailored for specific occasions, like 'Comfort Meals' and 'Study Break Snacks'.

88. Grocery Drive-Through

89. Assistive Devices for Low Vision: Tiny projectors or sound indicators for people with low vision.

90. Expiration Date Detector: alerts product expiration dates.

91. Children's Book Translation Service: Translates children's books and comics, making it easy availability worldwide.

92. Pre-Loaded Cards in Machines: Transportation and restaurant gift cards available in vending machines and ATMs.

93. Hotel Vending Machine linked to hotel bills for convenience.

94. Personalized Celebration Coupons: Birthday and anniversary coupons tailored to individual interests.

95. Ad-Free Kids Browsing: Safe, ad-free browsing experience for children.

96. Memory Keepsake Items: Personalized jewelry and decorations made from meaningful items.

97. Traffic-Avoidance Suggestions: Recommends alternate activities to avoid crowded events and traffic.

98. Physical Color Picker: Device for selecting specific colors in the physical world.

99. Senior Home Visit App: App scheduling visits from students and therapists for senior citizens.

100. Voiceitt Communication Support: Supports spoken communication for people with non-standard speech, including sign language through a camera.

Out of this extensive list of ideas, I narrow it down to my all-time favorites, ones I keep using and refining based on positive feedback from my mock interviewers. It's kind of like my secret sauce. I share this not to copy, but to inspire you to create your own unique shortlist tailored to your style.

IDEA	EXAMPLE	HOW IT WORKS	STAT

1. Arcade / gamification	Nike's zombie run (create own mission with story line, collect supplies to rebuild your town)	• **Arcade: multiple games** in one area (virtual I physical, e.g. gym)
		• **Outside incentives** using partnership (e.g. Starbucks & Lyft)
		• **Challenge** real friends → share on social media
		• **Shake** the phones to **randomly** make a decision (pizza toppings)
		• **Nice gamification themes:**
		  ○ Zombie run / Alien envasion
		  ○ Around the world in X days
		  ○ Time travel
		  ○ The "DaVinci Code"
		  ○ Murder mystery
		  ○ "Jurassic Park" / Animal island
		  ○ Build your cat town / business / rock band / sandwich
			89% of employees would be more productive if their work was more gamified

2. Social proof - pairing users with similar people, even celebrity	Public.com (investing app where you can add friends and follow celebrities)	• **Follow your favorite celebrities** to see their decisions (not just photos and status but other aspects of life like parenting, investing, etc.) Can be videos. • **"People similar to you also"** feature. Like Match.com, but not **just for dating.** You see people similar to you like which restaurant, events, etc. and can also **read their reviews.** • **Stat about others' decision** - tell you % of people doing certain things so you can follow	82% of Americans say they seek recommendations from friends and family before making a purchase.
3. Make it social - with friends / family / strangers	Peloton (cycling)	• **Couple / Family DYI:** board games, cooking kits, planting • **Daily activities w/ people** matching interests (eat, run) • Help them **save these memories** easily (photo filters, automated album creation tied with your calendar and timing of photos)	
4. Templates - faster and effortlessly professional	Canva, Miro	• **Templates or asset libraries** so users don't start from scratch. Users can also pre-feed images / texts and quickly see how it looks in different templates. • Allow **saving default settings** (e.g. color themes, margin, styles) • Templates **recommendation** based on user activity	
5. Sharing economy - rent out parking space Invisible boyfriends	ParqEx (rent out parking space) Invisible boyfriends	• **Rent or swap** instead of buy. Use centralized drop box to avoid meeting in person • **Bulk buying** with your neighbors • **Common products:** equipment, people, media, space	
6. Community - meet people w/ similar interest, to **partner**	Behance (Adobe acquired)	**Target users** • **Smaller artists & professional** to discuss & find partners • For those who are **going through important milestone** (parents, hospitalization, puberty) **Features** • **Show off & personalize** their portfolio & profile • **Physical meeting place** (to ensure security) **with all the tools needed**	
7. Smart tracker w/ suggestions to improve	Nadi X smart yoga pants	• Trackers in **clothes/shoes, phone, ring** • Suggestion **improvement with video examples** • Share data w/ others (coaches, doctors, friends)	
8. Live editing / collaboration	Bit.AI (better Google Doc)	• Collaborate on **creative work** as well as simple docs • **Collage:** embed videos / interactive elements into documents (like an HTML doc with iframes and you can put whatever in) → **Content library** for the doc to quickly access all references • **Chat** or quick voice call on the side • **Voting** system for bigger teams • **'Focus zone'** so everyone can go to the same place • Quickly **jump to someone else' location** • **Parking lot** feature to avoid sidetrack	
9. Drone delivery	Amazon	• **Security:** if drone is not on track → record where it stop and take pictures of surrounding • **Return service process** where you can leave the box and ask the drone to come pick it up. **Cons:** • To stick to the **30-minutes-or-less delivery promise** → **more warehouse and dispatch centers**	
10. Control by voice / hand gestures	The Clapper (light switch)	• **Control by tapping / turning items you often wear** such as rings, bike handle, jackets (existed), pop socket, etc. • Control by **hand gesture** (tap arms, waving hands)	
11. Add senses - smell, music, touch	Starbucks, Benjamin brush	• **Senses:** Taste, touch (wind, materials), sound, smell	
12. Make it fun - use themes, glow in the dark, waterproof, etc.	Glowing toilet paper, waterproof speaker	• **Change** based on environment (light, temperature, noise) • **Can be used anywhere** (in water, during camping) • Make it **random**	

(handwritten margin notes, top to bottom): 4 Favorite / Unique · 2 community / PP · 4 technology · 4 Technology · 2 Fun

Step 2: Applying the What If? prompts

During the interview, after jotting down my first ideas, I always dive into refining them to add that extra zing. To speed up this process, I tested techniques like SCAMPER, Six Thinking Hats, and the Five Whys. However, these methods either lacked diversity or were too time-consuming for the rapid pace of interviews. So I ended up devising my own set of "What If" questions, comprising approximately 100 playful queries tailored to boost creativity.

While not every prompt ensures groundbreaking ideas in every situation, but consistent use during brainstorming sessions trains my brain to think and transform ideas effortlessly. I encourage you to develop your own set of favorite "What If" questions. Still, feel free to use mine as a helpful foundation!

1. Simplify design, services, functions.
2. Build a community (e.g., consumer tribe).
3. Connect with history and past trends.
4. Reduce time until usability.
5. Implement low-tech/no-tech solutions.
6. Provide behavior change suggestions.
7. Inform users about progress and impact.
8. Help users track plans/schedules.
9. Enable multitasking for users.
10. Reduce stress, boost confidence upon achieving a goal.
11. Add penalties to discourage actions.
12. Implement instant scoring system.
13. Create social pressure for users to act.
14. Develop high-quality free products.
15. Ensure safety for children or pets.
16. Disguise to look completely different.
17. Make it easy to clean and maintain.

18. Use high-tech or space-related materials.

19. Make it stationary/immoveable.

20. Give it a less conventional shape.

21. Add an element of surprise.

22. Help customers change habits or behavior.

23. Eliminate non-essential parts.

24. Use different components or materials.

25. Magnify or intensify aspects.

26. Reverse the original intent.

27. Create a different emotional experience for users.

28. Explore without budget constraints.

29. Add flavors.

30. Personalize the product.

31. Use unconventional colors.

32. Eliminate crucial details selectively.

33. Repeat or create duplicates of specific elements.

34. Magnify worst details selectively.

35. Enhance product value through better packaging.

36. Convert vague details into specifics.

37. Reduce specificity and create a generic approach.

38. Blend into the surrounding environment.

39. Make it glow.

40. Add a humorous aspect.

41. Make it multifunctional.

42. Increase responsiveness to temperature changes.

43. Reverse the sequence of events.

44. Skip a certain step.

45. Increase user confidence.

46. Introduce subscription services.

47. Offer diverse options.

48. Allow users to customize product configuration or interface.

49. Ensure user-friendliness for various user types.

50. Incorporate elements based on current news or trends.

51. Enhance interpersonal relationships.

52. Package the product in a frame or box.

53. Facilitate easier handling and mobility.

54. Decrease density or thickness.

55. Avoid specific shapes.

56. Implement mass customization strategies.

57. Reduce its size.

58. Enable user self-service options (e.g., DIY).

59. Include rewards to encourage user engagement.

60. Create a calm and gentle experience.

61. Ensure easy zoom in/out or resizing.

62. Adjust intervals or durations between components.

63. Ensure it's health-friendly.

64. Make it more dynamic.

65. Change color or texture.

66. Increase/decrease frequency.

67. Design for child and elderly usability.

68. Make it edible.

69. Enhance multi-sensory aspects (touch, smell, sound, etc.).

70. Lower production or service costs.

71. Make it environmentally friendly.

72. Target a new user demographic.

73. Create a sense of closeness for distant individuals.

74. Encourage interactions between people.

75. Modify the amount of information provided.

76. Adjust surface and texture for users' touch experience.

77. Make it robust, sturdy, and unbreakable.

78. Promote collaboration and group work.

79. Ensure easy integration with other products.

80. Implement early warning systems.

81. Add voice-related features or voice-controlled functions.

82. Enhance interaction with users.

83. Randomize specific elements for variety.

84. Add daring elements for excitement.

85. Utilize advantages of video technology.

86. Provide a fuller and richer space.

87. Increase comfort.

88. Add security/anti-theft features for safety.

89. Increase density or thickness.

90. Add artistic elements for aesthetics.

91. Make it pliable, flexible, or highly elastic.

92. Ensure easy learning/understanding.

93. Mimic natural processes or behaviors.

94. Make it float on water, waterproof, or usable underwater.

95. Maintain a consistent theme or look.

96. Allow users to assemble certain parts themselves.

97. Enable automatic startup and shutdown.

98. Transform 2D elements into 3D.

99. Divide the product into interchangeable parts (e.g., like Lego).

100.   Activate the product in various ways.

101.   Make it adaptable to changes in variables/factors.

102.   Enhance music or sound quality.

103.   Associate it with a food-related theme.

104.   Promote optimism and positive attitude.

105.   Introduce related products/services.

106.   Sell merchandise with recognizable images and brand names.

107.   Adjust speed: make it faster or slower.

108. Tailor based on user's location/position.

109. Alter the target audience.

110. Add unique character traits.

111. Design for social gatherings.

112. Facilitate easy payments.

113. Make it larger.

114. Make it more precise.

115. Automate functions.

116. Make parts easily detachable/replaceable.

117. Give it a traditional shape or appearance.

118. Substitute components based on scientific or available data.

I get it, another long list of prompts! When I started out, I made my own shorter list of favorites before I fully grasped all of this. Take a peek at the condensed list I put together on the next page!

And Voilà! That's my secret sauce, honed over months and years of practicing for PM interviews and brainstorming ideas for my startups. Transforming your mind into an idea factory is a thrilling journey. I hope you enjoy it as much as I have—not just for acing interviews, but for unlocking the creativity essential for your PM career.

Image: My favorite brainstorming prompt condensed

IDEA BRAINSTORMING

Date : _____

Question : _____

Target users : _____

User needs : _____

1. PERSONALIZATION

- [ ] Suggestions based on user' location, input, action
  E.g. Content just like this, Product like this, etc.
- [ ] Customized UI and language for kids, foreigners, etc.
  – Easy for people with disabilities: color, motor skill, voice
  – Customize font size and number of features depending on age
- [ ] Give it personality
- [ ] Recognize different users
- [ ] Search content, products based on certain criteria
- [ ] ML to provide feedback and suggest ways to improve

2. CONTROL

- [ ] GPS tracking, mobile tracking
- [ ] Password-controlled like car' look
- [ ] Video monitoring
- [ ] Parental control
- [ ] Emergency : call doctor or police automatically
- [ ] Add reminders and notification
- [ ] Track and report progress: details

3. RELATIONSHIP and GROUPS

- [ ] Build community, connect people w. something common
- [ ] Make it easy to share between friends: calendar, files
- [ ] Record memories
- [ ] Notification of member activities and tatus
- [ ] Super like option to let users express more feeling
- [ ] Create contests between friends and family
- [ ] Group discount
- [ ] Deliver difficult things : thanks, sorry

4. DESIGN OPTIONS

- [ ] Users can choose different covers, packaging designs
- [ ] Add a design theme from artists, movies, etc.
- [ ] Make it blend in or stand out
- [ ] Make it look like something else
- [ ] Exagerate
- [ ] Add wheels
- [ ] Change colors

5. DELIGHT

- [ ] Add positive validation. E.g. physical button
- [ ] Use it in water
- [ ] Add music as time measure
- [ ] Add smell or make it eatable
- [ ] Add humor
- [ ] Add photo filters
- [ ] Glow in the dark
- [ ] Livestream everywhere
- [ ] Badges based on certain criteria
- [ ] Effortlessly educational

6. ADAPTABILTY

- [ ] Adapt to temperature change or changes in condition
- [ ] Work with other appliances: Make it stickable
- [ ] Different sizes:
  E.g. Easy to fit in purse or carry like a pocket hat

7. HIGH TAKE, MOONSHOTS

- [ ] Automatic payment – integrated into a product
- [ ] Data sync with phone, calendar, Google home
- [ ] Use drone technology for delivery, image capture, etc.
- [ ] Control by voice, hand, auto detection
- [ ] AR, VR

Sample Interviews: Product Design
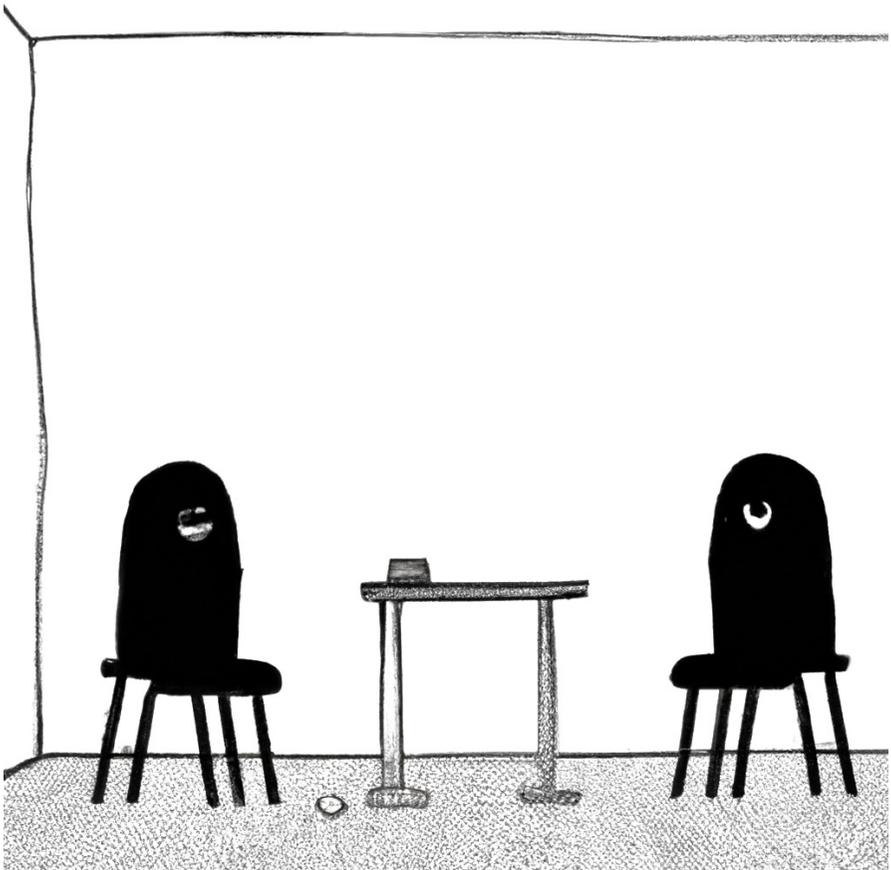
Honestly, my plan was to whip up a hefty 100 questions to supercharge your PM interview prep. But guess what? Quality beats quantity! You need the inside scoop and tips and not just a boatload of samples. W

At the end, I've got a bonus for you: a list of 22 extra questions I personally used to prep for my PM interviews. Some of these are the real deal—questions I faced in different companies during my interviews!

OR, MAYBE I GOT A BIT LAZY AFTER ALL!
LET'S KEEP THAT
BETWEEN US,
SHALL WE?

EXAMPLE 1   53

Design
a social network
for children

Interviewer: Design a social network for children.

Interviewee: Ah, that's an interesting question. Allow me a moment to consider the problem.

[Pauses to think and jot down notes]

I would like to go through a structured approach:

1. Clarification of definitions and scope
2. Define goals
3. Users' Pain Points
4. Solution
5. Prioritization & MVP

Interviewer: That sounds reasonable.

Interviewee: Before we proceed, may I ask a few clarifying questions?

First, children can be segmented in various ways, including age, socioeconomic status, and origin. Are there specific groups you would like me to focus on, or should I choose one?

Interviewer: What do you think is the right segment to focus on?

Interviewee: I think segmenting by age will reveal the most significant differences in social media usage behavior. To choose the age group to focus on, I'll consider two things 1) Number of people in the user group and 2) Service gap. Assuming the number of users in each age group is similar, service gap will matter more.

Within the age groups, young kids seem the most underserved. Teenagers use mainstream social media, and toddlers are better suited for social interactions in person. Small children, however, are at an age where they start learning and connecting with friends but currently lack a platform to do so outside of school. Focusing on

---

I usually use my first pause not just to think about the structure, which I should already have planned, but also to get a few clarification questions ready, and even have a rough idea of user segmentation methods.

Often time, the user segment provided are not detailed enough. Breaking them down into sub-segments is a smart move.

Explain why you choose one method over another. For instance, opt for methods that highlight significant disparities in usage patterns or service gaps.

Next, focus on the segment that is either larger or has greater service gaps.

this group might be ideal. Are you okay if we focus on this group?

Interviewer: Let's go ahead with your choice.

Interviewee: Excellent. Let me make a few assumptions and confirm if they align with your thoughts:

- Social networks will serve as platforms for children to connect, share stories, and view others' posts. Is this in line with your expectations?
- We will target the US market.
- There are no time or resource constraints.

Interviewer: Sounds good.

Interviewee: Thank you. Before delving into the user journey, I want to ensure I grasp our primary goal. As this is a new product, our focus should be on adoption and retention, prioritizing building a user base rather than immediate engagement or revenue.

Interviewer: Certainly. Let's move on to the next step.

Interviewee: Please allow me a moment to consider user needs.

[Pauses to think]

Thank you for your patience. I've identified several pain points for children aged 5-12 that could potentially be alleviated by a social media platform:

A. Functional:

1. Children need a simple device to access a social media app.
2. Social connections, interactions, and events often require adult intervention, causing significant friction.

B. Emotional:

3. Children desire to have fun.

It's crucial to acknowledge that while our primary focus is on children, parents are also users since they will be monitoring their kids' app usage. Therefore, we need to consider elements crucial to parents:

4. Keep kids safe.
5. Keep kids educated.
6. Keep kids entertained.

If we prioritize these needs based on **severity** and **frequency**, the most important needs for kids would be the need for a simple device to access social interactions (1), followed by the need for social connections without adult intervention (2), and then the emotional need for fun (3). For parents, ensuring safety (4), followed by education (5), and then entertainment (6) would be their top priorities.

If we just take the most important needs from both the kids and parents, we require a social media app that is easy to access, safe, yet doesn't demand significant time investment from parents.

Does that sound like a good set of problems to focus on?

Interviewer: That's a thorough summary of user needs. Let's proceed to brainstorm solutions.

Interviewee: Great, so just to reiterate our problem statement: we aim to design a social media app for children aged 5-12. The app needs to be easy to access, safe, and not overly demanding on parents' time. In this context, we are not emphasizing the educational or entertainment aspects, but please let me know if you'd like to explore ideas in these areas as well.

Please allow me another moment to brainstorm solutions.

[Pauses to think]

Thank you for your patience. Let me share the ideas I've

brainstormed:

A. App Format and Hosting

1. **Mobile App:** a regular mobile app that parents can download on their phones or iPads; kids can only use the app when parents allow them to borrow the phone or iPads.

2. **Smart TV Interface with Kid-Friendly Remote**: a simple social media interface that is compatible with smart TVs. Develop a kid-friendly remote control with basic buttons (next, back, like, etc.) for easy navigation. This option provides a communal viewing experience for children and encourages family involvement.

3. **Specialized Kid-Friendly Tablet:** a dedicated tablet designed specifically for children, featuring physical buttons for essential functions and a limited selection of parent-approved apps. This tablet ensures a controlled environment and a focused user experience tailored for educational and social interactions.

    Drawing inspiration from the success of the e-ink industry, which has seamlessly carved out a niche market for tablets designed specifically for writing enthusiasts, our goal is to pioneer a similar path for children's tablets. Our focus is on creating a device that is gentle on the eyes, promotes a healthy relationship with technology by avoiding addiction, and prioritizes safety above all.

B. App Features

4. **Pre-Approved Circles / Groups with AI Safety Scores:** circles can be selected by parents, schools, or are suggested based on circles approved by trusted friends. Utilize AI-generated safety scores to assess thread content based on various factors such as

Avoid writing down lengthy explanations of each idea in the shared doc to save time.

Skip the details for obvious ideas. Instead, focus on unique, standout concepts.

This example shows longer explanations. However during your actual interview, monitor your time and adjust your explanations accordingly. If necessary, start with a brief walk through of ideas, then check with the interviewer if they need further details.

topics, language, and images. This ensures a safe environment for interactions within these circles, giving parents confidence in their child's online interactions.

5. **Not-so-Imaginary Friends with Educational Modules:** Add pre-generated characters within the app that serve as role models for children. These characters behave and post like regular kids, and are safe, educational. Kids can get started with these even when they haven't gotten any connections / friends yet at the start.

    In addition, parents can indicate specific interests (e.g. solar system, cooking, etc.) in a chosen time frame, which will prompt these characters to show engagements in related activities and encourage kids' learning through positive influence.

6. **AI-Assisted Posting:** allow parents to help kids post with minimal effort. After setting post frequency preference, parents will receive prompts based on that frequency, to choose a photo from their phones to post. We will have AI help with generating taglines, suggesting threads or friend posts similar in nature to cross post as a comment, etc. The goal is to encourage interactions among peers without the need to remember which threads or other posts to comment on or cross-post to.

7. **Monthly Auto-Backup and Data Deletion:** every month, the app compiles children's threads into downloadable albums or PDFs for parents. After backup, all information is automatically deleted from the platform, ensuring privacy and data security while allowing parents to preserve their child's online experiences.

Before we proceed with prioritization, I'd like to pause and invite any questions you might have.

Choose a memorable name for your ideas, especially the unique one. Any name is better than none.

E.g. While the "not-so-imaginary friends" might not be perfect, it's likely to stick with the interviewer long after the interview concludes.

Interviewer: These ideas are intriguing. Please explain how you would prioritize them.

Interviewee: Certainly, let's evaluate these ideas based on two critical factors: how effectively they address the problems we outlined earlier, and the effort involved in implementation.

Split your ideas into MVP (short term), medium term (1-2 years) and long term (3+ years)

Idea	Impact on goal: Adoption	Impact on: Ease of access	Impact on: Safety	Impact on: Parents' effort	Dev effort	Timeline
1	M	L		L	L	MVP
2	?	M		M	M-H	Medium-term
3	?	H		M	H	Long-term
4	H		H	H	L	MVP
5	H		H	H	M	MVP
6	M		M	H	M	Medium-term
7	M		H	M	L	MVP

H = High, M = Medium, L = Low

Based on this evaluation, for the MVP, I propose developing an app for phones or tablets. This app would include the pre-approved circle feature, not-so-imaginary friends, and the auto-backup and data deletion feature. These functionalities directly address our primary concerns and can be implemented with a manageable development effort. The other ideas will be pursued in the medium to long term, ensuring a continuous evolution of our product based on user feedback and market needs.

In actual interviews, to save time, I often add these score next to the ideas listed in the shared doc rather than creating a table. The scoring typically takes about a minute. It's not about perfecting the score but demonstrating a systematic approach and clear criteria for idea prioritization.

Interviewer: Thank you for the detailed explanation. Is there anything else you would like to add before we conclude this discussion?

Interviewee: Certainly, I'd like to highlight a few additional concerns and considerations vital to our MVP development:

Add concerns / additional considerations to refine your response and showcase your critical thinking capability

- **Legal Compliance:** It is imperative to strictly adhere to all laws and regulations regarding child online

safety and privacy. In addition to AI monitoring, providing users with efficient tools to block or flag accounts is essential, ensuring immediate action against any inappropriate content or interactions.

- **Strategic Partnerships:** To drive user engagement, strategic partnerships with schools and activity centers can be invaluable. By aligning our app with educational institutions, we can tap into mass interests. To facilitate this, the robustness of the "Circle" feature becomes crucial, ensuring it caters to the specific needs of organizations hosting these circles.

Interviewer: Thank you for sharing these critical considerations!

Other ideas:

1. Do chores to earn point to use app longer

EXAMPLE 2   61

Design
a grocery store
for the elderly
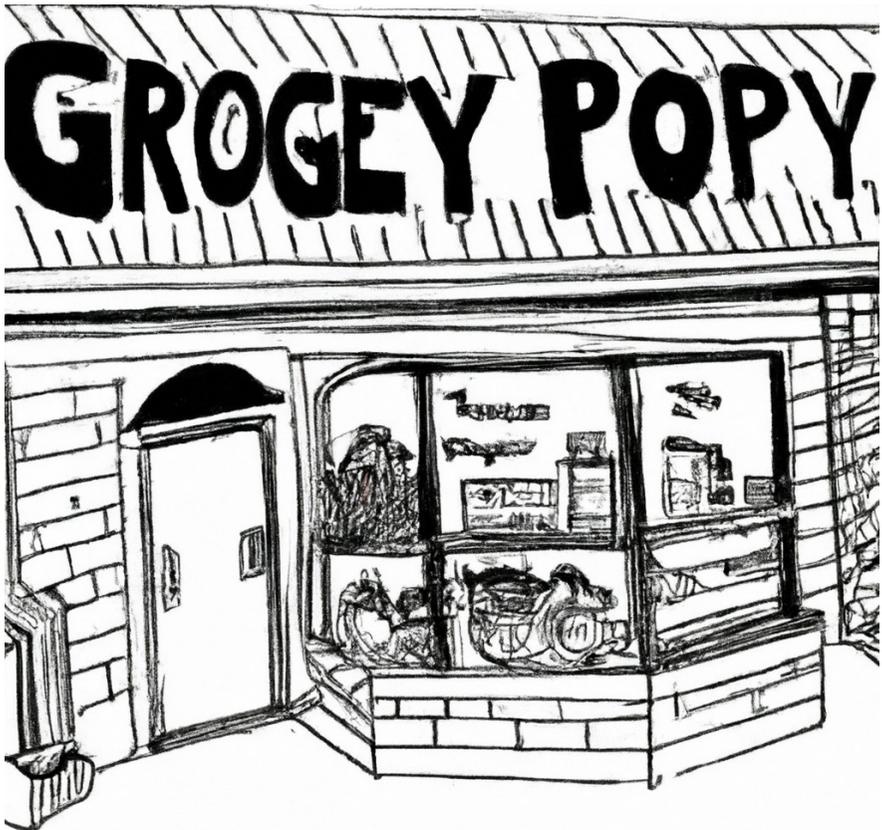
Keep the number of clarifications questions to 3-5.

Types of clarification questions I often ask include:

1. Definitions of words used in the prompt

2. Questions that help narrow down market (both users and physical locations)

3. Questions that help narrow down solution space later (online, offline, physical products, etc.)

I often state my assumption that there are no time or resource constraints.

I created an abbreviation that helps me remember the common goals (you don't need to list all of them in every case): RUED-BS

R = Revenue
U = # Users
E = Engagement
D = Data
(having more data is a competitive advantage)
B = Branding
S = Synergy

Interviewer: Design a grocery store for the elderly

Interviewee: Great problem! Let me take a moment to gather my thoughts.

[Pauses]

Alright, let's get started. First, I'd like to ask for a few clarifications and define the goals. Then, we can delve into understanding the users and their specific needs in greater detail. Afterward, we can brainstorm potential solutions and prioritize them based on impact and effort.

Interviewer: sounds comprehensive!

Interviewee: Great. A few clarification questions

1. Regarding the scope, are we conceptualizing a new grocery store from the ground up, or are we focusing on enhancing an existing store?
2. Should we target a particular region or neighborhood for this redesign?
3. Are we exclusively concentrating on improving the in-store experience?

Interviewer: Let's imagine we are redesigning an existing average-sized grocery store in a suburban neighborhood to better serve elderly customers. The focus is on the in-store experience.

Interviewee: Understood. And I assume we are not limited by time or resources in our brainstorming?

Interviewer: That's correct.

Interviewee: Excellent. Let's discuss the goals. I can think of some relevant goals such as:

- Increasing revenue within the elderly demographic
- Increasing number of elderly customers
- Increasing satisfaction among these users
- Strengthening our branding to be more community-oriented and supportive of the elderly.

Are any of these goals aligned with your vision, or do you have other objectives in mind?

Interviewer: Let's focus on increasing satisfaction among elderly users.

Interviewee: Sounds good. With this, I think we can move on to the next part, talking about the users. Do you have a specific sub-segment within the elderly demographic that you'd like me to concentrate on? If not, I can also discuss various approaches to segmenting the user base.

Interviewer: Please walk me through your thought process on segmenting the users.

Interviewee: Certainly. If you don't mind, I'll take a moment to think about this.

[Pause]

Alright. so while there could be more segmenting methods, I believe the following are two meaningful approaches that would result in more distinct needs and usage patterns:

1. **Demographic Segmentation** based on users' physical abilities:
   - Elderly who independently do their shopping
   - Elderly with limited physical abilities and rely on assistance for grocery shopping

2. **Behavioral Segmentation**.
   - Elderly who prioritize convenience, viewing grocery shopping as a chore
   - Elderly who find enjoyment in the grocery shopping experience itself

To achieve high impact, I propose targeting the larger segment: elderly shoppers who do their own shopping and also value the shopping experience. The reasons are 1) Elderly with limited physical abilities often have

Sometimes, I jump straight to asking the interviewers the goals they have in mind, if I anticipate other parts of the discussion will take time (e.g. more complex / interesting questions)

Interviewers will often ask you to propose segmentation method.

Four common segmentation methods include:

1. Demographic (age, income, education, occupation, etc.)

2. Geographic location

3. Psychographic (lifestyle, personality)

4. Behavior (usage, purchase behavior, etc.)

I often prioritize users based on at least one of the following criteria

1. Larger scope

2. Larger service / need gap

3. Potential higher revenue

assistance with their grocery shopping and visit the store less frequently. 2) My hypothesis is that a significant number of retired elderly individuals live alone and for them, shopping can serve as an opportunity to engage socially.

Does that work for you to focus on this group of users?

Interviewer: That sounds like a solid approach. Please proceed.

Interviewee: If you don't mind, I will take another minute to think through the pain points.

[Pause]

A couple of pain points I think are relevant for this group of users are:

Functional Needs:
1. Navigation: Users need help remember items they need to buy, locate, and retrieve them, especially those placed too high or low.
2. Visual: Users need help reading small text on signs and packaging.
3. Health: Users need products tailored to their health requirements.
4. Handling items: Users need help handling heavy items and carts during shopping, checkout, and loading.
5. Checkout: Users have a hard time waiting at the checkout, dealing with coupons, loyalty cards, etc.

Emotional Needs:
6. Social: Users desire social interactions and assistance during the shopping trip.
7. Independence: Users want to feel capable of doing shopping on their own.

Considering the urgency of these needs, we can prioritize them as follows:

- **High urgency:** 1 (Navigation), 4 (Managing heavy items), 3 (Health)
- **Medium urgency:** 6 (Social Connection), 7 (Independence)
- **Low urgency:** 2 (Visual), 1 (Checkout)

So if we focus on the high urgency items, we can distill the problem statement into: assist the elderly shoppers in navigating the store with ease and finding products tailored to their health.

Interviewer: That's a good summary of the problem. Let's proceed to brainstorming solutions.

Interviewee: Let me take another moment to put down some solutions.

[Pause, writing down ideas]

1. "Hearty-Buy" Station:
- Smart map: Users can scan their handwritten shopping list at the station to get a detailed, mapped route directly on their shopping cart screen displays.
- Health-Tailored Suggestions: The machine at the station also intelligently suggests brands and products aligned with their specific health needs. Users can input their health concerns or integrate their account with medical history data and doctor recommendations for tailored suggestions.
- Expert Guidance: Dedicated nutritionists are available at the station, providing expert assistance and personalized recommendations. This can also make the experience more social, which is one of the pain points we highlighted above.

2. Zero-Weight Shopping:
- Users simply scan items with a scanner, eliminating the need to carry heavy items throughout the store.
- Seamless Pickup or Delivery: Instead of waiting in line at the checkout, users receive notifications when

In actual interview where your interviewer can see what you write, mark this H - M - L straight onto each needs so it's easier to see.

Remember to summarize the problem statements. Write it down so you don't lose track of this during brainstorming.

Draw your idea whenever possible, especially when you explain a new idea that hasn't been done before.

E.g., In this case, I would draw out the shopping cart screen displays to quickly illustrate the idea.

their items are ready for pickup or delivered directly to their cars.

- Relaxing Lounge Areas: While waiting, users can unwind in comfortable lounge areas. Here, they can enjoy light snacks, tea, and engage in friendly conversations or play games with fellow shoppers, enhancing the overall shopping experience.

3. Shopping buddy program

- Create designated store hours tailored for fostering connections between generations and supporting the elderly. These special hours are strategically scheduled to minimize crowds, ensuring a peaceful and welcoming ambiance within the store, specifically catering to the elderly.
- Personal Shopping Guides: Trained volunteers, including local children and students, serve as personal shopping guides for elderly shoppers, assisting them in finding items and checking out.
- Volunteers are provided with tablets containing in-depth product information and health-based recommendations. This advanced technology aids volunteers in offering precise assistance to elderly shoppers, ensuring their needs are met effectively.
- Beyond just assistance, the program emphasizes the importance of social connections. Volunteers engage in friendly conversations, fostering meaningful relationships and combating social isolation among the elderly.

Let's think through the impact and effort for each of these ideas. In terms of impact:

- Hearty-Buy station has larger impact and addresses both 'health' and 'navigation' needs
- Zero-Weight Shopping has medium impact and addresses 'navigation' need
- Shopping buddy program can have medium impact and is a great idea when it comes to addressing

I often have 'favorite' ideas that are versatile enough to be applied to diverse scenarios. This helps me come up with more ideas during stressful interviewing situations.

See my section on how to brainstorm effectively for more ideas on how to come up with good solutions during an interview.

Beside Impact and effort, I also like to use 'how well it solve the problem' as a criteria.

'social connection' need. However, due to the limited time window and volunteer resources, it might not be scalable or at the convenient time for all elderly.

In terms of efforts:
* Hearty-Buy Station: Medium Effort (Requires Investment in Software Development)
* Zero-Weight Shopping: High Effort (Involves Significant Hardware, Equipment, and Operational Planning)
* Shopping buddy program: Low Effort to set up (Small Scale Implementation)

Taking into considerations both efforts and impact, I propose building the "Hearty-Buy" Station as the MVP. This idea has higher impact and effort is medium. The Shopping buddy program and Zero-Weight Shopping concepts can be considered for longer-term investments.

Interviewer: Excellent. How do you propose measuring the success of the MVP?

Interviewee: going back to our main goal discussed earlier - user satisfaction. We should keep this as our northstar metric. User satisfaction can be measured using regular surveys to elderly shoppers.

Alongside survey, there are other implicit signals that can signal users' satisfaction:

* Adoption Rate: % elderly individuals who initiate the use of the station
* Retention / return rate: % of users who come back to reuse the station
* Purchase Conversion: % of items suggested by the station that are ultimately purchased by users, indicating the effectiveness of product recommendations
* Repeat Purchase Rate: % of purchased items that are repurchased. This highlights the continued

When interviewing with larger companies, effort isn't my primary focus in prioritization. These companies have ample resources to invest in good ideas. As long as the costs are reasonable, the potential of the idea takes precedence over concerns about expenditure.

Categorizing your ideas as short-term MVPs, medium-term, and long-term goals reflects strong product strategy acumen. Save moonshot or high-effort ideas for the long-term, emphasizing a thoughtful approach to innovation.

AARRR is a widely used success metric framework. But rather than listing every metrics in this framework, focus on the ones most impactful for the specific case.

satisfaction and loyalty of users towards the recommended products.

Interviewer: Thanks for walking me through this. These make sense. Any final considerations before we conclude the interview?

Interviewee: Certainly, a couple of additional factors merit consideration:

1. **User base:** While the Hearty-Buy Station is tailored for the elderly, it could find utility among families with young children and health-conscious individuals. Exploring the possibility of expanding its usability to these demographics could enhance its impact.

2. **Data Privacy Concerns:** A crucial aspect to address involves the handling of health-related data. Given its sensitivity, ensuring robust privacy measures and compliance with data protection regulations are key. Safeguarding user privacy is essential for building trust and ensuring the successful adoption of our solutions.

Interviewer: Great! Thank you!

EXAMPLE 3   69

Design a vending machine for a hotel

Interviewer: Design a vending machine for a hotel

Interviewee: Thanks for the great question. Please allow me a moment to gather my thoughts.

[Pause]

Alright, I'm ready to get started. I would like to answer using the following structure:

- Clarifying questions to better scope the problem
- Discuss the goals
- Understand the user segments
- Understand user needs
- Brainstorm & prioritize solutions
- We can touch on success metrics at the end if you would like to

Interviewer: That sounds good.

Interviewee: Thanks. So I have 4 clarification questions.

1. **Hotel Categories:** Are we considering a range of hotels, from budget accommodations to high-end establishments, or are we focusing on a specific category like luxury hotels or Bed and Breakfasts?
2. **Product Range:** Should we limit the vending machine to traditional food and beverage items, or are we open to offering a broader array of products?
3. **Design Scope:** Are we tasked with a complete overhaul, allowing for a fresh redesign from scratch, or should we explore modifications and enhancements to existing vending machine models? This distinction will guide our creative direction.
4. **Project Constraints:** Can we operate without significant limitations on the project timeline or budget?

Interviewer: Great questions. Let's maintain an open scope, encompassing various hotel categories and a wide range of products. Feel free to redesign the vending

---

Similar to case #1, I use the first pause to also plan for the user segmentation section, minimizing too many pauses during the interview. The structure should not required too much thinking since it does not deviate too much from the master structure I have been using during my practices.

The initial three questions aim to refine the question's scope, preventing it from being overly broad. Consider the product's geographical location, its types, and the permissible extent of changes/ innovations.

machine entirely without any constraints on timeline or budget.

Interviewee: Certainly, I appreciate the clarification. Regarding the objectives for this project, a few come to mind are:

- Increase revenue from vending sales
- Delight hotel guests and increase their satisfaction
- Reinforce Brand Identity: Infusing our hotel's unique identity into even the smallest aspects, like a vending machine, can significantly impact how our brand is perceived.

In general, vending machine sales aren't the main income source for hotels; they are more often used to enhance guest convenience. So instead of the first goal, I would propose focusing on making guests happy and creatively showcasing our brand. This way, we ensure a great experience while subtly promoting our hotel's uniqueness. Are you okay with this goal or do you have something else in mind?

Interviewer: What you selected sounds good. Let's proceed.

Interviewee: Great, let's dive into our user segments for hotel vending machines. I would segment users into four groups

1. **Leisure Travelers:** Typically new to the city, travel in groups, and can be domestic or international travelers.
2. **Business Travelers:** Frequent visitors to the same city for work, often traveling alone.
3. **Short-Term Passers:** Individuals on road trips, moving, or staying overnight.
4. **The vending machine item suppliers** who use these machines as a sales channel. This group, distinct from end-users, plays a crucial role that is frequently overlooked but undeniably significant.

Again, I use RUED-BS acronyms to remember common types of goals, then select only the one I find most relevant. Never list all of the possible goals.

Offer a concise rationale for your choice of a particular goal. The selection criteria are flexible as long as justification for prioritizing one goal over another is provided. Occasionally, interviewers may have specific goal in mind; be prepared to align with the provided goal in such cases.

Beside the four segmenting methods introduced previously, I also like to distinguish between end-users, business users, and supply-side players. This method is widely employed in real world.

At times, creating a list of functional and emotional needs out of thin air can be challenging. In this case, try tracing the users' journey over a relevant timeframe. This method not only demonstrates your ability to empathize with users but also ensures that you capture all crucial moments in their end-to-end experience.

I also often employ this approach for other types of questions, like identifying root causes of problems or changes in metrics.

An often-made mistake in interviews is listing needs not specific to the chosen user segment. For instance, the need to 'buy food when hungry at the hotel' applies to all user groups, not just travelers.

To prioritize our focus, we should consider both scope and need gap:

- **In terms of scope:** Both leisure travelers and business travelers constitute the largest user base compared to shorter passers or suppliers
- **In terms of need gap:** Compared to business travelers, leisure travelers exhibit a greater need gap. Unlike business travelers, who prioritize efficiency, leisure travelers have the time and curiosity to explore both the city and hotel amenities. Yet, they often find hotels lacking in creativity and enjoyable experiences, making them an ideal focus for our efforts.

Are you okay to focus on leisure travelers as our target users?

Interviewer: That makes sense.

Interviewee: Perfect. Next, please allow me a minute to think through user needs.

[Pause]

Considering that travelers often journey in groups, let's explore the user journey of a family traveling together.
1. **Explore the city & its culture:** Upon arrival, their focus shifts to gathering information about city highlights, unique foods, beverages, and exclusive products. This knowledge helps them prioritize their exploration.
2. **Local necessities:** Practical concerns can also arise, such as adapting to local necessities like water quality or electrical systems. They might also require essentials in case of lost or damaged items during their trip.
3. **Have fun together when they are at the hotel**: after their traveling and exploration of the city, when they are back at the hotel, they want spaces conducive to group activities and relaxation.

4. **Sharing their experience** with friends & family back home.

Let's prioritize using **urgency** and **frequency** of needs.
1. Explore the city: High urgency, high frequency
2. Local necessities: High urgency, medium frequency
3. Have fun at the hotel: Medium urgency, low frequency
4. Sharing experience: Low urgency, high frequency

Given this, I suggest concentrating on aiding users in exploring the city and immersing in its culture through our vending machine. This need is both urgent and highly frequent. Are you in agreement?

Interviewer: It sounds like a challenging task for a machine! Nevertheless, let's hear your solutions.

Interviewee: Great! In summary, our vision is to assist travelers in delving deeper into the city's essence and immersing themselves in the unique experiences it offers, all through the convenience of our vending machine.

Please give me a few minutes to brainstorm ideas.

[Pause and start putting down idea on shared doc]

Thank you for the wait. So my main concept revolves around transforming the vending machine into a source of inspiration and ideas for travelers, making it more than just a dispenser of necessities.

A. Product sold in the vending machine:

1. **Taste of the Town Box:** Curated snack boxes featuring local delicacies, each with a QR code for detailed information and a city map indicating where similar products can be found.

2. **City Souvenirs:** Handcrafted items representing the city's heritage, providing travelers with unique mementos.

Ensure to synthesize clear vision or problem statements, encompassing both the target audience and the specific needs we aim to address.

Start with a concise vision overview to clarify the 'why' behind your ideas. Aim for ambition while emphasizing the need for a gradual, step-by-step approach in the short term. This demonstrates your capacity for 10X thinking.

The key to a compelling idea lies in its name so make sure your best idea have a name. My favorite naming techniques are alliteration and metaphor.

Ideas such as language guides and experience coupons aren't highly innovative. Keep explanations concise.

It's a plus to show that you understand the current user trends. For instance, mentioning that people like taking selfies (idea 4) or expecting products to be easily delivered to their door (idea 5) shows you're up-to-date with what consumers like.

I'm fond of ideas that encourage social sharing and referrals, especially for new products relying on word-of-mouth to generate excitement and attract users. While not inherently creative, they demonstrate a strong grasp of marketing techniques.

3. **Tour Around Town:**

- **Language Guides:** Pocket-sized guides enabling travelers to engage more deeply with local culture and communicate effectively, especially helpful for international visitors.

- **Local Experience Coupons:** Discounts for guided tours, cooking classes, art workshops, and cultural performances, enhancing travelers' engagement with the city.

- **Vending Machine Treasure Hunt:** Connect with other vending machines in popular tourist spots for an interactive treasure hunt experience.

B. Vending machine design: Innovative vending machine concepts transcend beyond the mere products they dispense; they encapsulate a transformative experience, redefining the way we engage with automated retail interfaces.

4. **A Vending Machine Worth a Selfie:** Aesthetically themed vending machines, adorned with city-specific elements such as famous foods, animals, or historical figures, encouraging travelers to capture memorable moments.

5. **Mobile Vending Machine:** Introduce mobility by allowing travelers to summon the vending machine to their room, enhancing convenience, particularly for families with children who find it challenging to search for vending machines in unfamiliar locations.

6. **Vending for the future:** For a small fee, users can save messages and photos in the vending machine. Only friends with the secret code the users have shared with, visiting the same machine, can access them. It's the perfect delightful surprise for the visitors, and also encourages hotel referrals.

Before we dive into prioritizing these ideas, do you have any questions about them?

Interviewer: They all sound great. I'm curious about your prioritization approach.

Interviewee: Fantastic! Let's move on to prioritization, then. I would like to prioritize the ideas based on the following criteria:
1. How good it is at solving the problem we prioritized
2. Effort required, which might impact whether something can be done in the short term, medium term, or long term.
3. "Wow" factor, emphasizing the impact on user experience

When the goal is to increase satisfaction with delightful experiences, I will add the "wow factor" as a prioritization criterion to ensure innovative ideas, despite their higher development effort, don't get overlooked.

Idea	How well it solves the problem	Effort to build	Wow factor
1	H	M	H
2	L	L	M
3.1	L	L	L
3.2	H	L	L
3.3	M	H	H
4	M	M	M
5	L	H	H
6	L	H	H

H = High, M = Medium, L = Low

If we concentrate on ideas with high and medium impact, coupled with low to medium building effort and medium to high wow factor, I recommend focusing on integrating the 'Taste of the Town Box' in the vending machine offerings. Additionally, collaborating with local artists to transform the vending machine, aligning it with the city's spirit, would further enhance its appeal to users.

Self-critique demonstrates your critical thinking and awareness of the bigger picture. I make a habit of jotting down my favorite criticisms and concerns to reuse them in various situations. Scalability is another recurring theme I like to use.

Interviewer: This is very thorough, thank you for walking me through your approach. Anything else you would like to add before closing?

Interviewee: Certainly! I want to mention one important consideration that requires some thinking: Scalability. The 'Taste of the Town Box' isn't a one-time

setup; it necessitates periodic refreshment. Furthermore, its implementation isn't universally applicable across all cities. In the case of a hotel chain, we must be prepared to invest in this idea for each city under the hotel's banner.

However, if we can successfully navigate these challenges, the rewards are substantial. This initiative holds the potential to significantly enhance the hotel's branding. Not only does it foster local businesses, but it also becomes a vehicle for sharing the city's unique culture far and wide.

Interviewer: Indeed, that is a significant hurdle for this concept. I appreciate the depth of your thinking.

EXAMPLE 4   77

Design a teleporter

Interviewer: Design a teleporter

Interviewee: Oh that's a unique challenge. Please give me a moment to think through the approach.

[Pause]

Excellent, thank you for your patience. I plan to address this challenge following these key steps:

- Understanding the technology and scope
- Defining goals
- Segmenting the users and prioritize one
- Understanding user needs and prioritizing the most urgent ones
- Brainstorming solutions and designs

Interviewer: Sounds good. Let's get started.

Interviewee: Fantastic. To ensure we're on the same page, I'd like to delve into the teleporter's technology and its limitations. Specifically:

1. Can we assume the teleporter can teleport anything including humans?
2. Can we assume that the teleporter can go however long distance and however high we need on earth?
3. Can we create as many teleporter stations as we need?
4. Is cost a non-restrictive factor?
5. Regarding the teleporter's size, can I assume it's adaptable to any space humans can occupy comfortably?

Interviewer: Absolutely, you have the freedom to explore this challenge without any technological constraints.

Interviewee: Understood. Moving on to our objectives, given that we're a new company launching a novel product, our primary focus is on user adoption. Are there any additional goals or specific priorities you'd like

When faced with unfamiliar or fictional technology, clarify its capabilities and limitations helps narrow down the scope. However, in this case where there is an absence of constraints, the problem becomes more challenging due to its open-ended nature.

I expect the open-ended nature of this case demands significant more time to understand users, their needs, and generate ideas. Hence, I keep the goal clarification section to minimal.

to emphasize in this context?

Interviewer: Just adoption is good.

Interviewee: Thank you! Before we delve into brainstorming user segments, there are a couple of vital considerations regarding the technology that we should be mindful of.

- Firstly, the teleporter, if not meticulously designed, could lead to significant issues such as theft, cheating, and various criminal activities, including illegal migration. To mitigate these risks, it's imperative that our teleportation system is carefully controlled and closely monitored by national security agencies.
- Additionally, it's essential to recognize the transformative potential of the teleporter on transportation systems. With the teleporter's integration, traditional modes of travel like airplanes and cars might become obsolete. This shift could reshape how traffic operates fundamentally. We can assume that multiple transportation systems could be seamlessly converted into teleportation-supported infrastructure.

Given these considerations, I'd like to move on to discussing user segmentation. May I take a moment to explore the different segments?

Interviewer: Certainly, take your time to thoroughly consider the user segments.

Interviewee:

[Pause]

There are various approaches to segmenting users, but a method that I believe distinctly influences behaviors is categorizing them as consumers and enterprises. Within each of these segments, we can further classify users as

Starting with these considerations demonstrates thoughtfulness about the problem and highlights potential product issues.

Preparing these considerations in advance will help save time and avoid starting from scratch. Ethical, legal, safety, and transformative impact considerations are some of my go-to talking points.

follows:

1. **Consumers**:
    - Individuals seeking faster leisure travel.
    - Commuters aiming to expedite daily activities such as work, school, and grocery shopping.
    - People in need of rapid transportation during emergencies, such as natural disasters or health crises.

2. **Enterprise**: We can further segment this group by industry since each industry has unique needs for a teleporter. Some of the most relevant sectors include:
    - Retailers: focus on efficient product and package delivery to consumers.

    - Production companies: focus on enhancing supply chain operations and moving of materials between factories and warehouses.
    - Event companies: organize large-scale events with thousands of participants.

To prioritize these segments, our assessment will consider both the number of users (scope) and the potential impact a teleporter might have on their needs (impact).
- The segments with the highest number of users and impacts are Consumers utilizing teleportation for their daily commute and Retailers.
- Segments with a narrower scope but significant impact include leisure travelers and individuals requiring transportation during emergencies. While these occasions are less frequent, their impact is notably high when they do occur. Similarly, production companies and factories have significant needs, albeit with fewer users involved.
- Finally, organizing group travels for events falls within a category of low scope but moderate impact.

Between the two segments with the highest scope and

impact, consumer daily commute and enterprise product delivery, I propose focusing on the consumer segment. By addressing the commuting needs of consumers, the change can potentially render the second problem obsolete, as users might opt to pick up their products conveniently due to the efficiency of the teleportation system.

Interviewer: That sounds good. Let's delve deeper into the specific needs of this user segment.

Interviewee: Certainly. Let's consider the daily routine of a typical American family, juggling work, school, and other activities.
1. On a workday morning, children need to be at school at specific times.
2. Simultaneously, working adults need to go to in-person meetings at the scheduled time and meeting room locations.
3. After school, children need to return home safely at specific time.
4. The family may also need to navigate grocery shopping, public activities, or dining out. In these scenarios, they prefer to choose hours when stores aren't overcrowded or restaurants have available seating. With the advent of teleportation, even large public places are susceptible to overcrowding.

In summary, three vital needs emerge:
1. Ensuring someone in the family is at a specific place at a specific time.
2. Granting parents oversight of their kids' schedules, ensuring they return home punctually from school.
3. Enabling the family to avoid crowded or over-capacity areas when venturing out after school and work.

I suggest prioritizing the first and third needs initially due to their apparent urgency. Regarding the second

When choosing between equally important segments, offer a brief justification. As you practice more, note your favorites so that you can re-use during interviews.

For example, one of my favorites is choosing an underserved segment. If one group is oversaturated with solutions, explore the other to differentiate and generate unique ideas for the underserved users.

I often deprioritize a need if they happens less frequent or if alternative, cheaper solutions exist.

need, collaborating with school teachers to oversee the process of sending kids home could efficiently address it. Do you agree with focusing on these two needs?

Interviewer: That approach makes perfect sense. Let's proceed in that direction.

Interviewee: Excellent. To distill our challenge: we aim to create a teleportation system that facilitates daily commutes to school and work while enabling users to plan post-work activities, avoiding crowded spaces.

I will now take some time to delve into brainstorming the design of this teleporter.

[Pause]

The Long-Term Vision: Our overarching goal is to revolutionize transportation entirely by replacing all existing modes with teleportation. To achieve this, the teleportation system should be overseen by a government agency, akin to the management of public transportation systems.

If you are designing a large system, establishing the foundational structure and setup is as crucial as defining detailed features. It forms the backbone of the entire system.

A. General Teleportation System Design:
1. **Address tracking system**: To ensure traffic control and safety, implement an address tracking system, similar to website URLs. This allows public access to areas like parks, but requires approval for private locations.
2. **Location**: Teleporter stations should be external to public buildings, allowing each establishment to enforce its control measures if desired. For personal use, families could have mini teleporters, ensuring individual privacy and convenience.

B. Detailed design addressing specific needs above:
3. **Smart Scheduling teleporter app:**
   • Users' schedules seamlessly integrate with the teleporter.
   • Get notified when it's optimal travel time, and

instructions on how to get to the best teleporter location based on your schedule and destination.

- Access real-time updates when your kids arrive home safely

4. **Safe Identification system:** A 3D bio-scanning system could identify users, guiding them precisely to their designated locations based on their calendars without users having to indicate destinations

5. **Sync trip:** Coordinating family meetups after work or school can be challenging, especially when arriving at different teleporter stations and times. To streamline this process, the system can send a 'Sync Trip' request to individuals you specify, facilitating the synchronization of destinations. This ensures that everyone is effortlessly teleported to the same station, simplifying family gatherings.

- Sync trip is automated when your calendar shows a common event with all people involved indicated.

6. **Crowd control:** The problem is often not the teleporter capacity handling, but the destination capacity handling.

- Add technology to monitor real-time updates of occupancy levels in specific areas within X miles from the teleporter. Users can personalize their preferences, indicating their desired crowd level before commencing travel. Teleporter stations will promptly notify users through the teleporter app, based on their selected capacity preferences.
- Teleporter Rewards Program: Implement a rewarding program to motivate users to travel during off-peak hours, ensuring manageable crowds at public stations.

Let's prioritize these ideas based on its potential impact on the problems identified.

- First, the system design ideas (the first two) are

indispensable as they are the foundation to make sure teleporting works.

- Then, among ideas 3 to 6:
    - Smart Scheduling --> Sync Trip stands out as most impactful since these are needed almost everyday.
    - The bio identification system, on the other hand, is less impactful as a simple solution like using IDs or badges, or even a simple facial recognition would be sufficient to start.
    - Similarly, crowd control can be done through a simple system akin to Google Maps' "typically busy" traffic distribution / map. So it is a nice-to-have feature but not as impactful.

Interviewer: The prioritization makes sense. Thank you for the explanation!

Bonus Questions

1. Create an app to enhance the concert experience.
2. Develop a comprehensive end-to-end self-driving taxi service.
3. Design an app to mitigate the impact of traffic congestion.
4. Design the best inflight content solution.
5. Design the mobile phone for the deaf-blind.
6. Design a refrigerator specifically for blind users.
7. Create an ATM tailored for internal airport use.
8. Develop a Facebook "remember when" feature.
9. Design a product for celebrating birthdays.
10. Design a Google garage.
11. Develop a product to enhance the subway system for children.
12. Create a better dog-walking service for pet owners.
13. Improve the user experience in museums.
14. Improve the Apple App Store.
15. Improve Google Maps.
16. Improve Netflix.
17. Improve ChatGPT.
18. Improve TikTok.
19. Improve Google Assistant / Siri.
20. Redesign the luggage.
21. Redesign the alarm clocks.
22. Name a product you frequently use and why. How would you improve it?

"Favorite product" Blueprint

Product design questions typically begin with a "Favorite product question" format:

Interviewer: Tell me about a product you like or use frequently that you think is [good / bad].

Interviewee: [Answer]

Interviewer: Now, explain how you would improve the product [optional: for a specific user segment].

While my approach to answering the initial "favorite product" question is straightforward, the preparation to answer it requires more effort. Let's delve into the details.

Framework

1. Product Overview: Provide a concise description of the product and the issues it addresses.

2. Key Advantages: Outline three reasons why the product is exceptional in solving these problems.

3. Competitor Comparison: Briefly compare the product with alternatives or competitors in the market.

4. Areas for Enhancement: Discuss potential improvements or areas where the product can be enhanced.

How many products should I prepare?

I would aim for about 7 products.

1. 3 Products under the company you are interviewing for
2. 4 Products not under the company you are interviewer for:
   - One software product
   - One physical product
   - One startup
   - One non-tech product
3. 2 poorly performing products that require significant improvement.

Image: Example of my favorite products list

	Software **PAPER 53**	Physical **BENJAMIN BRUSH**	Startup **VIBEJI**	Non-tech LASER CAT TOY
What is it?	Lightweight app for sketching, notes, and design.	An electric toothbrush with built-in music store	Bite-sized edutainment workshop app	An automated laser pointer designed for pets
Problems it solves	Enable both professionals and amateurs to effortlessly create stunning sketches and notes.	Promote proper teeth brushing habits for both children and adults.	Deliver practical and enjoyable workshops to young Vietnamese learners in short, interactive sessions	Alleviate pets' boredom, especially in the absence of their owners.
How does it solve the problems – 3 reasons to love	I'm not a graphic artist or illustrator, but Paper's magic lies in making you believe you are. 1. Easily draw beautiful shapes with a subtle overlay of color – no need for shape tools. 2. Handy shortcuts, like tapping two fingers to undo. 3. Minimalistic design prevents users from feeling overwhelmed. Fewer choices mean fewer things to think about; for example, the color palette offers only 9 colors.	1. Enhancing proper teeth brushing with music for both kids and families. Music plays for 2 minutes, ensuring thorough brushing. 2. Introducing gamification to transform brushing into a social activity, increasing the fun factor beyond personal enjoyment. 3. Enabling progress tracking through the app for a sense of accomplishment.	1. Short workshops (1-3 hours) covering diverse topics, from cigar smoking to breathing techniques and lipstick making. 2. User-friendly filters: sort by price, interest, and format (hands-on, passive, conversational, kid-friendly, private, or small group). 3. Intuitive UI design fosters curiosity and provides a pleasant browsing experience.	1. Automatically turns on and off at intervals, ensuring pets have fun without overuse or boredom. 2. Compatible with various surfaces and heights, featuring 3 adjustable angle settings. 3. Simple, attractive design serves as a stylish home decoration.
Competitor Analysis	Photoshop: 1) More professional 2) Heavy / not portable 3) Steeper learning curve. Procreate: 1) Moderate Learning Required 2) Fewer shortcuts 3) Complex Layout with Numerous Elements	Most competitors target adults, offering similar features like power settings and brushing patterns, along with sleek brush designs. Benjamin goes beyond, incorporating fun elements along with the standard functionalities.	There are no direct competitors in Vietnam. They are driving the shift towards an experience-driven economy.	n/a

Improvements	Issue: Limited tool options → Offer paid brushes and equipment for professionals looking to expand their toolkit. Issue: Beginners face a blank canvas → Provide pre-made templates for sketches, meeting notes, brainstorming, etc. Include brief tutorials for sketch-noting. Enhancement: Enable customization of symbols for quicker sketch noting.	Issue: Apps geared towards adults → Introduce a kid-friendly mode enabling voice commands instead of text input. Issue: Difficulty in sustaining interest → Enable parents to link rewards to their child's progress or results.	Issue: Reliance on instructors' network for event promotion → Develop improved incentives for regular users, such as referral strategies, to encourage organic growth. Issue: Manual setup for online workshops by instructors → Implement an automated process for setting up online workshops, reducing dependency on instructors' choices and streamlining the setup procedure.	Issue: Absence of on/off automation → Allow users to schedule on/off times, especially at night. Issue: Static patterns leading to pet boredom → Introduce more randomness for pet engagement. Issue: Potential for obsessive behavior in dogs → Provide clear instructions to owners on recognizing and addressing obsessive behavior issues, offering guidance on problem detection and resolution.
Useful stat	The average human arm reaches 53 centimeters.	The average person brushes for only 45-70 seconds a day, falling short of the recommended 2-3 minutes.	Spending on experiences (entertainment, events, travel) is rapidly increasing, outpacing regular consumption. This trend is influenced by Millennials, more so than Gen X, and is propelled by social media and FOMO.	n/a

Image: Example of my poorly performing products list

	Software PROMPT SMART PRO	Related to company I interviewed with DRIVE
What is it?	Teleprompter script app: Helps users remember lines for videos/speeches. • Mirrored and auto scrolling text • Simple adjustments for font size and background color, ensuring optimal visibility.	Manage and categorize files efficiently in the cloud storage.
Problems with the products	1. Consistent speed 2. No collaboration (limited external control) 3. No reminder of prop	Lack of organization 1. Struggle to maintain a structured system 2. Overreliance on search.
Example solutions	1. Scroll via voice recognition or paddles. 2. Enable external control of scrolling. 3. Add a separate column for picture/image prompts.	1. Template: Intelligent folder structure suggestions 2. Auto-organize: Smart suggestions based on linkages and file names.

My Product Strategy Blueprint

Framework Facts

Unlimited uses per framework

Serving size	**1 interview**

Amount per serving

Standout	**1000**

	% Daily Value*
Asking good questions	**250%**
Understanding the situation	**3000%**
The 3Cs	**2600%**
Understand Users & Trends	**400%**
SWOT	**7500%**
Strategic planning	**10000%**
Short & long term strategies	**5000%**
what to build to differentiate	
Effective prioritization	**500%**
Mastering metrics	**300%**

* The % Daily Value (DV) is based on the top 10% of PM interview candidates at big tech companies

Ever felt like you've got a buffet of resources for product design but hit a sauce snag when it comes to product strategy? The reason is simple: there are more strategy frameworks than you have condiments in your pantry! Ever tangled with SWOT, danced with the 3Cs, juggled the 4Ps, and wrestled with Porter's Five Forces? Heard the buzz about PEST and met the mysterious ANSOFF? The strategy world's like a wild carnival, and the list of tricks keeps growing.
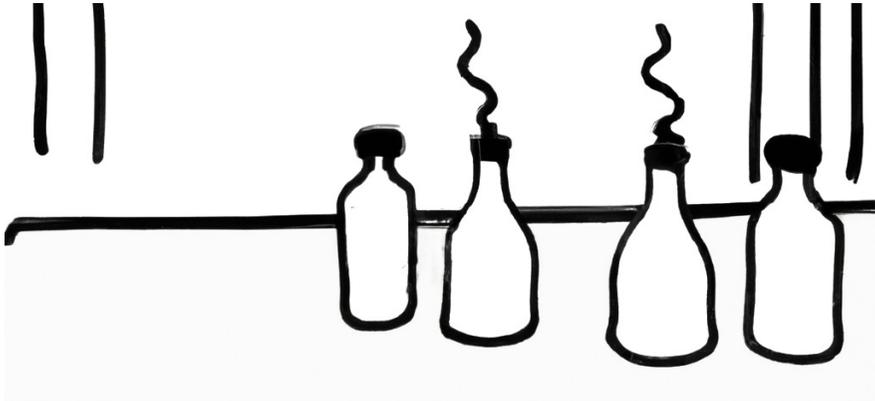
Selecting a strategy framework, hence, can be as tricky as finding the perfect sauce for any dish. But fear not! While there's no universal solution, my extensive interview experience has led me to a handful of secret sauces that consistently work well in most situations. Just a few tricks to tackle 80% of interview scenarios effectively.

But before we dive into the frameworks, let's discuss the most common strategy question types.

3 Common Strategy Questions

1. 5-Year Plan: What should be company X's next priorities.

2. Launching / Expanding in a Market: Which market should we enter and how? Is investment in Product X worthwhile?

3. Monetization Decision: Should we monetize X? If yes, how?

Proficiency in these types equips you to handle many other strategy questions, which are often variations or combinations of these.

Master Strategy Framework

These steps are essential for most strategy questions. Modify, adapt, or omit them based on the specific questions you face. Although it appears lengthy here, with practice, I condense the framework into a few key points to recall the order and included mini-frameworks.

Step 1. Clarify

Similar to product design interviews, use this clarification section to understand the product, industry, and the market the company is in.

Step 2. Goals / Objectives (RUED-BS)

Ask the interviewers about the specific goals/objectives of the company in this scenario. You could also be asked to come up with a goal.

I created the acronym RUED-BS as a practical tool to recall essential company goals. Though not the most elegant acronym, it significantly improved my ability to recall goals. And until now, it remains a reliable reference in my strategic planning.

R = Revenue: Increase revenue.

U = Users: Expand the user base, both in new and existing segments.

E = Engagement: Enhance engagement to boost user retention.

D = Data: Acquire more user data, providing strategic advantages such as targeted advertising.

B = Branding: Focus on improving the company's image and perception.

S = Synergies: Support existing products and increase their usage by introducing new complementary products.

Step 3. Anazye the context

To comprehend the situation, focus on three key factors (3Cs):

Customers, Company, and Competitors.

A. Understanding the Users

The approach mirrors the use sections in product design framework: begin with user segmentation and then needs identification. In strategy questions, there are two key distinctions:

- It's better to focus on unmet needs where the company can gain advantages, unlike in product design questions where general needs are more acceptable.

- The user section in strategy questions has limited time since there are a lot more topics you need to cover beside the users. Be concise, make essential assumptions if needed.

B. Understanding the Company

To understand the company, I analyze its offerings and products, then employing a simplified SWOT analysis, focusing solely on its Strengths and Weaknesses. I specifically assess the following factors for strengths and weaknesses:

1. **Technology**: Determine if the company outperforms competitors in technology and strategize ways to leverage it. Examples include Google's Page Rank and Amazon's proprietary delivery system.

2. **Knowledge**: Assess if the company possesses unique data or knowledge, setting it apart from others. For instance, Facebook's extensive user interest data.

3. **Relationships**: Analyze distinctive connections with users, partners, or sellers that competitors lack. For example, Costco's exclusive seller partnerships provide discounts not accessible to rivals.

I recommend exploring additional categories of strengths and weaknesses that you find valuable for discussion during the interview.

C. Understanding the Competitors

Apply the same steps used for understanding the company, but focus on understanding competitors.

Step 4: Brainstorm & Discuss Strategy Options

A. For many strategy questions including those that touch on long-term strategic planning, I love using ANSOFF matrix to identify and analyze different growth opportunities. It helps simplify the strategic choices and is easy to understand.

The matrix uses two axes: products (existing to new) and markets (existing to new) to create four growth scenarios.

```
              EXISTING PRODUCT    NEW PRODUCT

                   MARKET           PRODUCT
  EXISTING
              PENETRATION         DEVELOPMENT
  MARKET


     NEW          MARKET
              DEVELOPMENT      DIVERSIFICATION
  MARKET
```

1. **Market Penetration (Existing Products, Existing Markets)**:
    Selling existing products to existing customers, focusing on
    increasing market share. This **short-term strategy** involves
    improved marketing and product optimization for fragmented
    markets with significant untapped potential.

2. **Product Development (New Products, Existing Markets)**:
    Creating new products for existing customers, expanding the
    product line. **This is often a medium-term approach.** Typically, I
    choose this when:
    *   The company's product is niche and expanding the product
        portfolio is possible.

- The company's limited brand strength hampers fruitful market expansion until a strong brand and loyal customer base are established.
- There are loyal customers willing to pay more for additional products.
- The company is mature with an already wide user base in various markets.

If you choose this approach, be sure to follow up with specific market suggestions based on revenue potential or a PEST analysis.

Finally, when selecting this approach, a crucial decision involves determining whether the new product should be developed internally, acquired, or built in collaboration with partners. This choice depends on:

- The importance of the product being a differentiator. If it's a key differentiator, in-house development might be necessary.
- Time constraints. If time is limited, building from scratch might not be feasible.
- The availability of suitable partners and existing companies. If there are viable partners, building from scratch might be unnecessary.

3. **Market Development (Existing Products, New Markets)**: Selling existing products to new customer segments or in new geographical areas, expanding the market reach. **This is a medium to long-term strategy.** I choose this track when:
   - Products have demonstrated success among specific user groups and could be valuable in other markets
   - The product portfolio is already comprehensive.
   - There are untapped markets, like NBU, that the company hasn't explored.

If you choose this method, provide a recommendation for a new product line that emphasizes differentiation and synergies with the current portfolio. Approach it similar to the Design questions (identify target users, needs, and then solutions), but ensure your interviewers are open to a detailed exploration as it might take time.

4. **Diversification (New Products, New Markets)**: Introducing new products to new customer segments or markets, involves high risk and potential high reward. I seldom discuss diversification as a strategy because it bypasses the intermediate steps of either developing a new product for an existing market or expanding to a new market with an existing product.

B. For questions about monetization / commercialization of a technology, I often use 4Ps

4Ps is a popular framework taught in MBA programs. It is used for **marketing strategy**. It stands for Product, Price, Place, and Promotion, representing the key elements businesses consider to successfully market their products or services. Here's what each "P" signifies:

1. **Product**: Refers to the features and benefits of the product or service being offered. It involves decisions regarding design, quality, branding, and packaging.

    - To identify the right product, apply a similar process as in product design questions. However, often, you'll need to do this much faster in strategy questions due to the broader scope / topics that needs to be covered beyond the product concept.

2. **Price**: Setting the right price is crucial. Here are some of my favorite pricing strategies:
    - Freemium: Ideal for retaining users uninterested in advanced features (offering basic services for free).
    - Trial: Similar to Freemium but with a limited free period.
    - Subscription: Beware of subscription fatigue. Use it only if there's a compelling reason; otherwise, opt for one-time payments.

3. **Place (optional)**: Focuses on the distribution channels and methods used to make the product or service available to the customers. This includes decisions related to online sales, physical stores, wholesalers, and retailers.

    Note: I don't delve deeply into this because placement is often standardized and not a significant differentiator for a company.

4. **Promotion (optional)**: Encompasses the marketing and promotional activities undertaken to create awareness and generate sales. It involves advertising, public relations, sales promotions, and other communication strategies.

   Note: PMs aren't required to be marketing experts, so I don't delve deeply into this topic. Occasionally, touching on effective marketing techniques like referral rewards and influencer marketing suffices.

C. When deciding to enter a new market, I utilize the PEST framework to evaluate the favorable environment. However, I utilize this framework much less frequently than ANSOFF and 4Ps.

1. **Political Factors**: Assess government policies, regulations, stability, and trends. Consider how political decisions and trade policies can impact your business or project.

2. **Economic Factors:** Analyze economic growth, inflation, exchange rates, and stability. Understand their influence on customer behavior, product demand, and overall profitability.

3. **Social Factors:** Examine demographics, lifestyle, education, and cultural attitudes. Understand societal preferences and norms, especially in the target market.

4. **Technological Factors:** Evaluate technology's impact, including innovations, automation, and research. Identify new opportunities and potential disruptions.

These are just three examples of frameworks for discussing strategy options. Keep an eye out for more as you develop your own blueprint.

Step 5: Strategy recommendation

Based on the insights gathered from step 2 to 4, summarize your recommendation that encompasses **both short and long-term strategy**.

Remember to summarize the reasons for choosing a strategy as short-term or long-term, considering factors such as:

- Alignment with company missions
- Leveraging company's strengths
- Addressing company's weaknesses
- Enhancing competitiveness
- Meeting RUED-BS objectives
- And other nuanced reasons discussed earlier. The strategy aligns with the company missions

Then, ask the interviewers if they would like you to delve into the execution aspects of the strategy.

Step 6: Execution (if requested by the interviewers)

Execution can have multiple factors. Some important ones include:

Launch Phases
- Beta: Test the product hypothesis for users' use cases.
- Pre-launch: Prepare marketing strategies (cross promotion, PR, social media campaigns, pre-orders, influencer marketing, etc.)
- During launch: Implement marketing strategies.
- Post-launch: Measure success and adjust products based on user feedback.

Success Metrics

- Adapt popular metrics frameworks like AARRR to focus on selecting a few meaningful ones. For further information on metrics, refer to the Analytics section.

Strategic Mastery: Beyond Frameworks

For strategy questions, selecting the right frameworks sets you apart, but to elevates you further, you need to showcase the following:

1. Demonstrating a comprehensive understanding of industry & technology trends, and consumer behavior trends.
2. Developing a transformative 10X strategy, not just minor adjustments.
3. Paying close attention to niche user segments and unique markets, particularly in competitive environments.

Bullet 2 and 3 serve as reminders during strategy discussions and user segments & needs sections. Now, let's zero in on bullet one.

To save you research time, here's a head start: 25 technology and user trends from the past few years that warrant our attention.

1. Blockchain Technology: Secure, decentralized digital transactions.
2. GPT-3 (Generative Pre-trained Transformer): Advanced language processing AI.
3. Influencer Marketing: Leveraging social media influencers for brand promotion.
4. Gamification: Integrating game elements into non-gaming contexts.
5. Short-Form Videos (e.g., TikTok): Bite-sized, engaging video content.
6. Experience Economy: Focus on creating memorable customer experiences.
7. Health Consciousness/Organic Products: Growing demand for healthier options.
8. Instagrammable Products: Products designed for shareable social media content.
9. Subscription Box Services: Curated products delivered to subscribers regularly.
10. Social Commerce: Direct purchasing options within social media platforms.
11. Sustainable and Eco-Friendly Products: Environmentally conscious consumerism.

12. Digital Wallets and Contactless Payments: Convenient and secure payment methods.

13. Telehealth Services: Remote healthcare consultations and services.

14. Remote Work Technology: Tools for efficient remote collaboration and communication.

15. Virtual Reality (VR) and Augmented Reality (AR): Immersive digital experiences.

16. Cybersecurity Solutions: Protecting against digital threats and data breaches.

17. Digital Mental Health Services: Apps and platforms offering mental health support and therapy.

18. Smart Home Devices: IoT devices for home automation and convenience.

19. Plant-Based and Alternative Diets: Rise in popularity of plant-based and vegan lifestyles.

20. NFTs (Non-Fungible Tokens): Unique digital assets using blockchain technology, popular in art and collectibles.

21. Telemedicine and Remote Healthcare Monitoring: Remote patient monitoring and telemedicine solutions for healthcare management.

22. 5G Technology: Rollout of 5G networks enabling faster and more efficient wireless communication.

23. Livestream Entertainment: Livestreaming of concerts, events, and performances for virtual audience engagement.

24. Cryptocurrency and Digital Wallets: Growing acceptance and use of cryptocurrencies, along with digital wallet apps.

25. Robotics in Customer Service: Use of robots and AI in customer support and service industries.

I frequently conduct in-depth research on startups/companies emphasizing these trends. This helps me understand the latest innovations and have a more interesting discussions during the strategy discussions.

Sample Interviews: Product Strategy
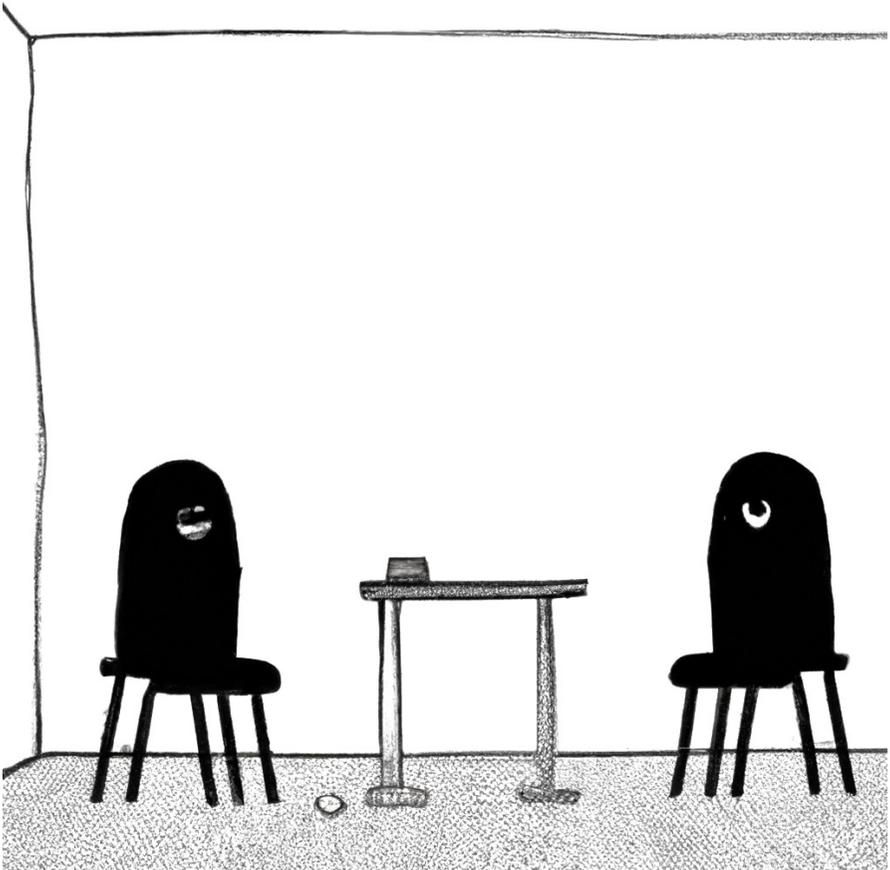
Strategy questions can throw you off balance in various ways. However, if you can resist the urge to hit panic mode when faced with an unfamiliar strategy query and instead, navigate it using the master framework, you'll likely come out unscathed. Don't just take my word for it—give it a shot.

The two examples provided here cover a good range of strategy questions you might come across. The first focuses on a straightforward 5-year plan, while the second delves into the importance of a specific investment for a company and what criteria make a product align with the company's strategy.

1. You are the CEO of Lego. What would you do in the next 5 years?

2. Should Google buy Dyson?

You are the CEO of Lego. What would you do in the next 5 years?
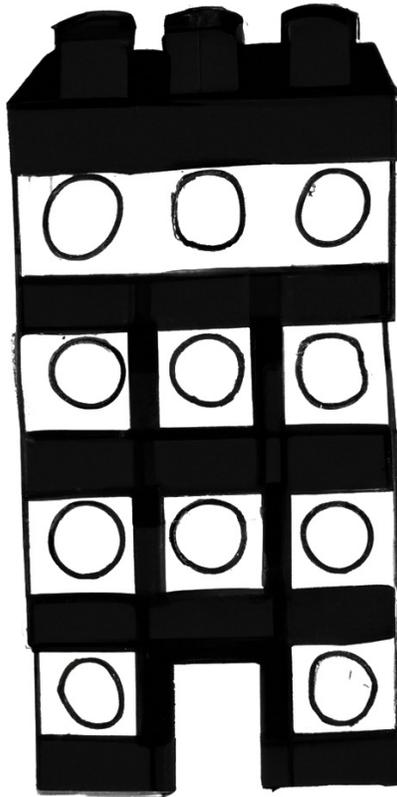
Interviewer: You are the CEO of Lego. What would you do in the next 5 years?

Interviewee: Interesting question. Let me think this through for a moment.

[Pause]

Let's structure our approach into the following sections:

1. Clarification questions
2. Define the company's goals
3. Analyze the users, company, and competitors
4. Discuss strategy options
5. Recommendations

Is this approach work for you?

Interviewer: That works.

Interviewee: So first, a few clarification questions:

1. Are we focusing on Lego's main product line or everything including resorts and movies?
2. How about the market? Are we considering all countries, both domestic and international?
3. And are there any constraints on technology or resources for developing new products?

Interviewer: Let's focus solely on the main product line. Our market approach should be broad, encompassing both domestic and international markets. And for now, no constraints apply.

Interviewee: Excellent. Let's shift our focus to the company's objectives. While I don't have the exact wording of Lego's mission statement, my understanding is that they aim to inspire people to learn and build through play. Is that an accurate representation?

Interviewer: Yes, that's close enough.

Interviewee: Great. Any specific goal in mind for the

Candidates often neglect structuring strategy questions due to the lack of a standard framework.

Starting with a partial structure, and adding sections if you miss any later, is better than answering without any organization.

In an actual interview, I would ask these questions one at a time and wait for an answer for each, rather than presenting them all together. I'm presenting all the questions here at once for your convenience, so you can see the complete set.

If the question isn't specifically about the company you're interviewing for, you might not be familiar with their mission statement. Don't hesitate to make an informed guess or ask the interviewers for clarification.

next 5 years?

Interviewer: What do you think Lego's goal should be?

Interviewee: In terms of long-term objectives, I consider factors like revenue, user base, engagement levels, data gathering, and brand enhancement. Lego already enjoys widespread recognition, with nearly every household in developed countries being familiar with it or owning a Lego set. Therefore, a more targeted objective would involve increasing revenue per user. This approach entails fostering deeper engagement, potentially resulting in higher sales.

Given our mission to inspire future builders, I suggest maintaining a focus on children, rather than diverting attention to other segments such as business applications or adult hobbies.

To sum up, the goal should revolve around enhancing engagements specifically with children, ultimately driving up revenue per user.

Interviewer: Sounds good.

Interviewee: Let's delve deeply into understanding our users, as well as assessing our company and competitors.

Concerning users, our primary focus will be on children. Within this category, we can further subdivide based on age groups:
- Children aged 5-6
- Children between 6 and 12
- Teenagers above 12.

Alternatively, we can consider demographic segments, such as developed and developing countries.

While there might be more methods to segment our audience, these two approaches yield the most meaningful distinctions in behavior within each group.

I'm choosing goals from the RUED-BS framework that I believe are most relevant here. Listing all possible goals isn't necessary every time.

If you've been speaking for more than a few minutes, summarize your points briefly. This helps in recalling the key information before transitioning to the next section.

Like in product design questions, I typically segment users using at least two methods.

That said, I think focusing on different locales reveals more significant distinctions, mainly because Lego already offers varied products tailored to different age groups. Then within the segmentation of different locales, we can prioritize a segment based on its **size** and **level of underservice**. International markets stand out for being both vast and significantly underserved.

To sum up, if you're in agreement, our focus should be on the international market as it is large and underserved.

Interviewer: Agreed. What about specific needs in international markets?

Interviewee: Allow me a moment to consider the unmet needs in the international market, with a focus on children.

[Pause]

Alright I can think of a few important unmet needs:

1. **Accessibility** - Lego may be less available or affordable in some international markets.

2. **Irrelevant themes/characters** - International kids may relate less to Lego's current IP/licenses which are very Western-focused.

3. **Still lacking educational elements**: Integrating educational components into Lego play could be particularly valuable in markets where education holds greater significance than mere play.

In terms of emotional needs, many of these are akin to those of users in the US, for example, the sense of accomplishment upon completing a Lego project, fostering friendships and social bonds, and encouraging imaginative exploration. However, one distinctive and unmet emotional need in international markets is:

In strategy questions, I expedite user segmentation and prioritization to allocate sufficient time for company and competitor analysis.

Highlight 'unmet' needs in strategy questions, as differentiation is vital for shaping an effective strategy.

Notice how I focus on the needs specific to the chosen user segment, avoiding broad needs applicable to all segments.

It's essential to establish logical connections between sections; otherwise, it might seem like you're merely following a framework without thoughtful reasoning.

4.   The desire for a sense of connection with children around the world.

If we prioritize these needs based on their **urgency**, the most critical one would be 1, followed by 2 and 3. The fourth need is considered more of a 'nice-to-have' aspect.

If that works for you, we can move on to analyzing the company and competitors.

Interviewer: Sure, let's do that.

Interviewee: In evaluating Lego's strengths against its competitors, it's clear that Lego stands out due to

- Its robust brand recognition
- Diverse product range
- Proprietary technology that ensures superior product quality.
- Its well-established global distribution network further strengthens its market position.

Nevertheless, Lego faces challenges such as
- Imitation products with lower price points
- Competition from local companies equipped with extensive knowledge about their local user base
- Indirect rivalry from digital educational and entertainment products, which are accessible to users worldwide regardless of location.

With that understanding of our position, let's proceed to explore our strategic options.

Interviewer: Agreed. Let's continue.

Interviewee: Please give me another minute to think through different strategy options.

[Pause]

Great, let's get started. I propose categorizing our strategic approaches based on two axes: existing vs. new product and existing vs. new market.

1. **Existing Product in Existing International Market**
   (a.k.a. Market Penetration - Short-term Strategy):

   - Initially focus on market penetration in countries where Lego's market share is low, particularly in developing nations due to pricing concerns. Lowering prices for these markets can be explored, and slight modifications to the products can justify pricing differences.

   - Furthermore, implementing additional marketing strategies can help us establish strong connections with local retailers and events, enhancing our efforts to promote the product more effectively.

2. **New Product in Existing International Markets**
   (Short to Medium-term Strategy):

   - Building on our previous conversation about unmet user needs, we should design Lego sets infused with local themes familiar to the children in these regions. For instance, themes based on folk characters or local fairy tales can resonate well. Addressing the growing demand for educational content, especially in regions emphasizing education, involves integrating Lego into school programs. For example, creating Lego sets aligned with biology classes can facilitate students' understanding of animal anatomy, enhancing their learning experience.

   - Furthermore, considering the competition from virtual products like gaming apps, we should explore the development of educational apps that incorporate Lego play. These apps could gamify the learning process and offer 'Lego points' that users can convert into actual Lego rewards.

3. **New markets with existing products**:

Remember to connect these strategies with the unmet needs you identified above.

Market penetration often requires a strong marketing strategy. It would be helpful to read more about marketing strategies in case the interviewers seek additional information. I recommend the book "The 1-Page Marketing Plan" - it's concise yet highly insightful.

Jotting down a few words to describe the ideas as you go through them can aid both you and the interviewers in recalling these ideas later.

This overview provides a high-level strategy. If you require a more detailed exploration of the design for any of these new features or strategies, please feel free to let me know.

Interviewer: Thank you for the summary. Could you please provide more details about the new virtual products? Specifically, how do you plan to make them competitive against existing local apps?

Interviewee: Sure, let me brainstorm a bit more on this.

[Pause]

Let me pick a specific market, Asia, to provide examples of what we can do here. **The primary unmet needs** we have identified revolve around integrating play and learning through the app, utilizing themes that resonate with local users.

- **In essence, this app could serve as an innovative platform to present school knowledge in a more engaging way.** It would incorporate fun interactions, Lego-themed elements to facilitate learning, enhance memory retention, and allow students to test their knowledge effectively. As an incentive for their achievements, students could earn Lego collectibles. To implement this, we could establish partnerships with schools and parents, making them the primary buyers, instead of the children themselves.

- **To enhance the appeal of these collectibles, we should choose themes that resonate deeply with people.** For instance, the Lunar New Year and the 12 zodiac animals hold significant cultural importance. Utilizing these zodiac animals as collectibles, which students can earn by excelling on the app, would likely garner widespread interest and engagement.

Additionally, there are a couple of noteworthy trends in

Typically, interviews conclude here. However, there might be instances where you will be asked to delve deeper into the design of specific product features. In these cases, certain aspects of the product design framework can be adapted accordingly.

When I'm short on time, I quickly narrow down the market options and make it clear to the interviewers that the approach can be applied to other markets if needed.

If the interviewers ask for my market selection process, I use frameworks like PEST to prioritize different options.

Asia that we could leverage:

- **NFT Popularity**: NFTs (Non-Fungible Tokens) continue to enjoy widespread popularity. We might consider creating Lego NFTs, for instance, as rewards to engage students in using the app.

- **Instagrammable Products:** The trend of 'Instagrammable moments' is particularly prevalent in Asia. People actively seek experiences or products they can showcase on Instagram. Building on this trend, our app could offer users unique photo opportunities. For instance, they could take pictures with their NFTs or rewarded Lego items using virtual reality, creating an illusion where the reward model or character appears life-sized in their real environment.

Please note that tailoring these features to local preferences involves substantial investments. Hence, a major concern is the cost of research and development. Although we are assuming no constraints in this scenario, in reality, managing the expenses would be one of the most significant challenges.

Alternatively, instead of developing these products in-house, I would suggest exploring partnerships with local companies. They could leverage Lego technology to create these products. Utilizing licensing agreements might serve as a viable approach to enter the market smoothly.

I can delve further into prioritizing these ideas and detailing the execution plan if you're interested.

EXAMPLE 2   113

Should Google buy Dyson?

Interviewer: Should Google buy Dyson?

Interviewee: Thanks for the question. Just a moment to think this through.

[Pause]

Let's dive into this. I would love to talk through a couple of things to help answer this question.

1. Clarification.
2. Factors to Consider: Identifying critical elements influencing the investment decision.
3. Strategy recommendations based on our discussion on each factor.

Does that sound good?

Interviewer: Yes.

Interviewee: So to start, I want to clarify a few things.

1. I'm not entirely familiar with Dyson's complete range of products. To my knowledge, they are renowned for their cordless vacuums and hair care products. Are there additional items you'd like me to include in our discussion, or should we concentrate solely on their primary product line, the cordless vacuum?

2. Secondly, I assume that if Google decides to proceed, they could acquire Dyson at a reasonable price.

Interviewer: Dyson does have lighting and headphones, but let's focus our discussion on their main product line, which is vacuum cleaners. And you're correct regarding the acquisition possibility and price.

Interviewee: Great, let me outline a few key factors that could influence the decision to invest in Dyson. Here are some aspects we can consider:

1. **Alignment with Google's Mission**: Assessing whether Dyson's products align with Google's

---

Side notes:

Always outline the structure, even if it's basic. This practice helps establish clear expectations about what follows.

The clarification section enables you to confirm your focus on the right market/ products and narrow down the scope.

Suggest focusing on the primary product line and confirm it with the interviewers.

mission and overall objectives.

2. **Leveraging Google's Strengths**: Evaluating if Dyson's products can utilize Google's strengths effectively.

3. **Addressing Google's Weaknesses:** Analyzing if Dyson's products can help mitigate Google's weaknesses.

4. **Solving Unmet Needs:** Exploring whether Dyson's products can address unmet needs for Google's users, leading to i) increased revenue ii) increased user base, and iii) engagement.

5. **Other Business Objectives:** Examining how acquiring Dyson can contribute to broader business objectives, such as i) enhancing Google's data and knowledge, ii) strengthening branding, and iii) creating synergies with existing products.

To answer these questions, I'll walk through each factor and assess Dyson's suitability for acquisition.

Interviewer: Very comprehensive. Let's dive in.

Interviewee: Great.

For Criterion #1, Google's mission is to organize the world's information and make it universally accessible and useful. In contrast, Dyson focuses on solving daily problems others seem to ignore. These missions, while valuable, don't perfectly align.

Criterion #2 and #3 require a detailed analysis of Google's strengths and weaknesses:

Strengths:

• **Technological Innovation**: Google excels in rapid and groundbreaking technological advancements, evident in projects like AlphaGo, AlphaFold, and various generative AI technologies.

This list of factors combines elements from several frameworks mentioned earlier: SWOT, RUED-BS, and 3Cs. The pause at the beginning allows me to prepare this list beforehand, ensuring I select the most relevant factors for the scenario.

Always memorize the mission statement of the company you're interviewing with. For other companies, make an educated guess on their mission statement and seek confirmation from the interviewers.

- **Knowledge Base:** Google possesses extensive user data from Search, Cloud products, and smart home technologies, giving it a deep understanding of user behavior.

- **Brand & customer relationship**: Google is widely regarded as a top tech company due to its positive brand image and loyal customer base.

- **Diversification**: Google's investments span a broad spectrum, from software to hardware and entertainment, ensuring a diverse revenue stream.

    Weaknesses:

- **Ads Revenue Dependency**: Ad revenues constituting over 80% of its income.

- **Hardware Challenges**: Google faces challenges in hardware competition, lacking a robust physical presence for consumer electronics distribution.

Let's consider whether Dyson can address Google's weaknesses or leverage its strengths.

- **Regarding technology,** Google's expertise could enhance the vacuum's capabilities. Integrating AI technology, such as voice commands and AI vision from Waymo, could automate household cleaning effectively.

- **Regarding data acquisition,** Google's vast user data might not significantly benefit a simple product like a vacuum.

- **In terms of relationships,** although Google's brand could boost vacuum sales, the lack of physical stores and hardware reputation counterbalances this advantage.

- **Addressing Google's reliance on ads revenue**, vacuum sales, while helpful, don't match other

lucrative sectors like software and entertainment.

In summary, Google's technological prowess and smart home ecosystem could enhance Dyson's product. However, these aspects don't seem to give Google a significant advantage over its competitors.

Interviewer: Interesting. How about user needs criteria?

Interviewee: Absolutely, moving on to **Criterion #4**. Let's discuss Google and Dyson users and revenue potential.

- Google is a ubiquitous tool used by people across various demographics. Dyson, however, caters to a more affluent clientele due to its higher-priced products. Since Dyson's user base is a subset of Google's, acquiring Dyson wouldn't expand Google's user pool.

- Considering revenue, the vacuum industry is comparatively smaller, so acquiring Dyson might not significantly boost Google's income.

In terms of **user needs**: let's see if addressing Dyson's users' needs could enhance engagement with Google products.

- Google's core service, "Google Search," aids users in finding online information effortlessly. Additionally, Google offers tools for organizing information like documents, presentations, and files. Moreover, Google aims to improve user interactions with their environment through smartphones and IoT smart home systems like Google Home.

- On the contrary, Dyson fulfills a distinct need: simplifying house cleaning without the hassle of heavy vacuums and long cords.

At this point, the disparity in user needs is evident, and it's unclear how solving Dyson's users' needs would

benefit Google's business. Overall, we haven't identified a compelling reason under criterion #4 for Google to acquire Dyson.

Interviewer: Got it, let's move on to **criterion 5**.

Interviewee: Certainly, the remaining factors are other objectives we should consider.

1. **Data**: Google already possesses substantial user data, so additional insights from vacuum usage or wealthier household preferences might not significantly enhance its value. Google can collect this data through Google Search for Dyson vacuum as well.

2. **Brand reputation**, Google already holds a strong brand name, and acquiring Dyson, a company focused narrowly on vacuum technology, wouldn't provide a significant boost.

3. **Lastly, revisiting our earlier discussion on synergy**, Google has been expanding its smart home products to compete with systems like Ting and Alexa. Integrating Dyson, an established vacuum brand, could strengthen Google's smart home lineup, especially for existing Dyson owners. However, the impact of adding a single device to the ecosystem requires further user research to assess its effectiveness.

It's quite comment and acceptable to advise against investment in certain situations. However, I've observed many candidates attempting to force a connection to recommend investment.

To sum up, my recommendation is for Google not to acquire Dyson. The alignment with Google's mission, leveraging strengths, and addressing weaknesses aren't substantial. The user needs also don't align closely, so solving Dyson's users' needs won't translate into meaningful business benefits.

However, there's a small advantage concerning the smart home system. Integrating with Dyson could boost usage of Google's home system. Yet, a better approach

might be ensuring Google serves as a versatile hub, accommodating various devices and competitors. This way, Google can focus on its strengths: software and AI.

Interviewer: Great job! I appreciate your thorough walkthrough of all the factors

In some instances, interviewers may ask, 'If the company invests in this product, how would you launch and monetize it?' Utilize the master framework to detail your monetization and launch strategies.

Bonus Questions

1. How would you assess the demand for a self-driving taxi service?
2. You want to create a competitor to Amazon, what would you do?
3. Netflix has a million users who haven't used the service for months but are still paying. What should Netflix do?
4. What strategies should restaurants adopt during the pandemic?
5. You're the PM for Dropbox. What will you do in the next 5 years?
6. How would you determine the right market to launch a rocket boot (boots with a lot higher speed)?
7. How can YouTube be monetized beyond YouTube Premium?
8. How can Facebook Messenger be monetized?
9. What should Google consider acquiring next?
10. How would you introduce a service for detecting smells?

My Analytics Blueprint

Framework Facts

Unlimited uses per framework

Serving size	**1 interview**

Amount per serving

Standout	**1000**

	% Daily Value*
Asking good questions	**250%**
Understanding the context	**3000%**
External factors	**1800%**
Internal factors	**2500%**
Generating sound hypotheses	**4200%**
Hypothesis testing	**3900%**
Effective prioritization	**2100%**
Mastering metrics	**400%**

* The % Daily Value (DV) is based on the top 10% of PM interview candidates at big tech companies

Analytical questions in PM interviews are generally on the easier side. Why? Well, for one, you can employ a template framework with a slight twist, practice a few times, and you'll likely be good to go. Plus, there's a significantly smaller pool of question types compared to Product Design or Strategy questions.

However, because these questions are relatively straightforward, many candidates perform well. To stand out, you'll need to put in a bit of extra effort and avoid relying solely on standard frameworks like AARRR. Here are two of my go-to analytics frameworks that I use almost every time, sprinkled with a few tips to add a touch of creativity.

Measuring success

Step 1. Clarify Products & Core Actions

Similar to product design and strategy questions, start by understanding the product's functionality and how it solves the core problems.

Additionally, delve into the key actions users perform while using the product, as these actions will be crucial in determining the primary metrics later on.

Step 2. Understand Users

Take some time to understand the diverse user segments associated with the product. Identifying multiple user segments is valuable because the key metrics for success vary among these groups. For instance, measuring success for viewers on YouTube might focus on hours watched, while for content creators, metrics like the number of videos uploaded are better.

Noting different user types to customize metrics for each group will help distinguish your analysis.

Step 3. Define PM Objectives

This part is my favorite as I practice Analytics questions more. Based on

my experience in startups and larger companies, I've noticed differences in how metrics are tracked for startups versus established products. Understanding these differences is essential, as it allows me to narrow down Northstar metrics effectively in the later stages of analysis.

1. **Consider the product's stage**: New products often prioritize adoption and retention, while existing products emphasize engagement metrics.

2. **(Optional) Consider company's objectives:** Understanding the company's main goals influences the metrics we should focus on. Relate these objectives to user needs, prioritizing measurements that matter most to users. Alternatively, go through the RUED-BS introduced earlier to check if the interviewers provide any specifics about the company's objectives.

Step 4. Listing & Prioritizing Metrics

Candidates often begin with this section, commonly relying on the AARRR framework, which stands for Acquisition, Activation, Retention, Revenue, and Referral. This framework is widely available for reference. However, merely adhering to this framework without considering other aspects is not advisable. That's why we have steps 1-3 to ensure you consider crucial factors that impact the metrics list. Here's how I often modify AARRR to my advantage.

1. **Business-Focused Metrics:** These metrics gauge the product's growth and perception within the market. Select them based on the company's objectives and its current stage. Example metrics:
   - Growth rates among different target users/regions
   - Customer satisfaction and app store ratings
   - Customer lifetime value (CLV)
   - Market share

2. **User Journey-Focused Metrics** (Modified AARRR): These metrics aid in product improvement.
   - **Awareness & Trial:** Measure metrics like the number of visits, downloads, and app opens. However, be cautious, as these

metrics may offer a superficial sense of accomplishment without contributing significantly to product enhancement.

- **Engagement & Deep Engagement:** % users using features, time spent using specific features, daily active users (DAU), and weekly active users (WAU).
    - Remember to segment engagement metrics by user groups identified earlier, since user actions leading to engagement can differ significantly.
    - Delve deeper beyond surface-level engagement; consider multiple user actions to assess deep engagement. For instance, on YouTube, watching videos constitutes engagement, while commenting reflects a deeper level of engagement.

- **Revenue, retention, and referral** metrics are relatively straightforward; I usually breeze through them quickly.

3. **Other Unique Metrics (if applicable):** If you have metrics in mind that go beyond standard frameworks like AARRR, utilize them.
   For instance, you can mention, "While universal frameworks like AARRR are valuable, for this particular product, I suggest exploring alternative metrics..." This approach highlights your understanding of foundational frameworks while displaying your ability to tailor analyses according to specific contexts.

Step 5. Metric Evaluation Nuances

This section allows you to stand out by delving into specific nuances. Example of factors you can address:

1. **Challenges in tracking metrics through the user funnel:** Identify aspects that are difficult or unreliable to track accurately.

2. **Metrics' limitations:** Highlight situations when the chosen metrics might not provide a comprehensive view.

   - Take YouTube's watch time metric as an example. Suppose watch time is high but deep engagement metrics like comments

are low. Is this scenario favorable for the business?

- Additionally, tracking the number of comments alone may not be enough. Consider the possibility of many comments being spam or negative, potentially demotivating content creators. Addressing these intricacies enhances your analysis, moving beyond superficial metrics.

Debugging changes in metrics

Another common Analytics question involves understanding shifts in metrics. For instance, you might be asked, "Netflix experienced a sudden drop in daily usage. How would you pinpoint the cause?"

Step 1. Clarify metric definition

Begin by defining the metrics in question. For example, ask, "How is usage measured in this case?"

Step 2. Understand context

Consider two primary factors that could influence metric changes:

1. **External Factors**

- **Time Period:** Ask if the change is sudden, gradual, or seasonal.
  - A sudden decline might indicate a technology bug or glitch, possibly related to service downtime. In this case, investigate for any technical issues that might have occurred.
  - A progressive decline suggests an ongoing issue, warranting a deeper analysis of the data, which can be explored further.

- **Region**: Ask whether the decline is localized to a specific region.
  - If regional, investigate news, geopolitics, regulations, epidemics, or shifts in user behavior within that area.
  - If the issue is global, it's more likely related to our product.

- **Industry and Competition:** Ask if the decline is industry-wide or specific to Netflix. Investigate the emergence of new competitors or changes in the competitive landscape.

- **User Segment:** Ask if the changes are caused by specific user segment. Changes in consumer trends or behaviors within this specific segment (e.g., shifts in Gen Z habits) could be influencing the metrics decline.

2. **Internal Factors (Within the Company)**

- **Scope**:
  - Have there been no changes in any other metrics?
  - Is the change in metrics specific to a particular feature/product?
  - Platform: Does the change occur across all platforms, including different browsers and devices? For instance, users might switch platforms, which might not necessarily indicate a problem.

- **Cannibalization**: Investigate if new features or products introduced by the company might lead to cannibalization of the existing metrics. Recognize that cannibalization is not necessarily negative and can be a natural consequence of innovation.

- **Reporting issues:** Verify the accuracy of data collection and logging. Investigate if there have been changes in data capturing methods that could impact the reported metrics.

Step 3. Hypothesis

Once you've eliminated certain factors using Step 2, it's time to delve into potential hypotheses regarding the metrics change.

1. If a significant issue was identified in Step 2, that becomes your primary hypothesis.

2. However, if none of the previous factors seem to be the cause (not regional, not platform-specific, no additional features causing cannibalization, and no market or competitor changes), conduct a detailed exploration of the customer user journey. Identify specific points in the funnel that might be causing the problem, such as the sign-up process or feature usage.

Next, provide a hypothesis. For example: "Among the six potential causes, the most plausible ones are: [...]."

Finally, outline the next steps you would take in real-life scenarios to finalize the decision on the issues. This typically involves a thorough analysis of usage data and feedback data, and occasionally complemented by A/B testing.

Step 4. Prioritize issues to focus on

After identifying the issues, prioritize them quickly based on scope, urgency, and technical difficulties.

Note that it's acceptable and may not require additional actions if:
- You have assessed the broader context, carefully weighing the pros and cons, and determined that the change aligns with our long-term goals and vision.
- The effect is intentional, such as in the case of product deprecation. Of course if the effect is unintended or undesirable, it's essential to promptly revert any product change that caused it.

Parting Thoughts

As I mentioned earlier, Analytics questions are relatively straightforward. Instead of providing you with an example, I recommend diving right into practicing a few questions using the frameworks I've shared. Tailor them to suit your own approach and style. Here are some practice questions:

1. Define the success metrics for the "Connection recommendation" feature on LinkedIn.

2. Identify the key success metrics for Lyft.

3. Airbnb experienced a 10% drop in bookings. How would you investigate the reasons behind this decline?

Happy practicing!

If you missed out on snagging one of the first thousand copies of this book, here's the deal: what's inside this book is on the fast track to becoming common knowledge.

Thinking of copy-pasting these frameworks? Think again. I'll say it loud and clear, one last time: you've gotta create your OWN blueprints (and maybe don't write a book about them until your interviews are done). That way, your framework will be ultra-cool and totally unique, and nobody else can snatch it away!

Oh, absolutely, it might take some sweat and elbow grease to get there. But the best things in life always come with a side of effort and a sprinkle of determination!

Now, enough of my chitchat!

Get practicing and let the awesomeness begin!

By the way, if you ever need to reach out, just drop me a message on LinkedIn (https://www.linkedin.com/in/tran-le/).

BYE