The
Product Management
Career Lab

PDL @ Columbia Engineering
Micah Berman / micahberman.com

A few brave **volunteers…**

What is your **name**?
What is one of your **favorite products**?
One sentence on **why**?

Supplement a world-class Columbia education with the **context and skills** to **pick**, **land**, and **grow** a Product Management career in today's dynamic environment.

I'm here to pay it forward

- 11 years at Google - Search, Google.org, and Android - managing products from 0 to 1 to 2B+

- 2 years as a venture-backed startup founder, starting from scratch and raising $M's in venture funding

- Conducted 100's of interviews

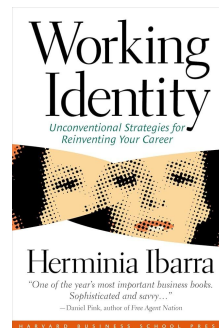Google

Google.org

android
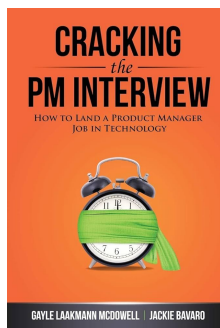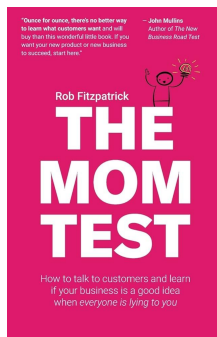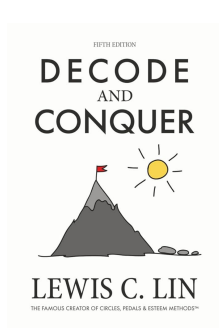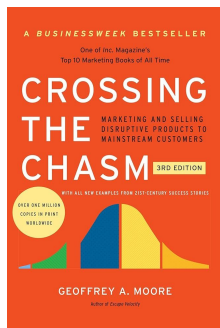
EZRA.

Today:

(1) **Pick**
What product management is and is not, theoretically and practically, to decide if PM is a good fit for you and your goals.

(2) **Land**
The three cornerstones of landing a job in product management, with a focus on interview skills, plus a few mini practice interviews under your belt.

(3) **Grow**
Tools to win the early days and shape a long-term career arc.

A *BUSINESSWEEK* BESTSELLER

One of Inc. Magazine's
Top 10 Marketing Books of All Time

CROSSING THE CHASM

3RD EDITION

MARKETING AND SELLING DISRUPTIVE PRODUCTS TO MAINSTREAM CUSTOMERS.

OVER ONE MILLION COPIES IN PRINT WORLDWIDE

GEOFFREY A. MOORE

Author of Escape Velocity

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DECODE AND CONQUER

LEWIS C. LIN

THE FAMOUS CREATOR OF CIRCLES, PEDALS & ESTEEM METHODS™

"Ounce for ounce, there's no better way to learn what customers want and will buy than this wonderful little book. If you want your new product or new business to succeed, start here." — John Mullins, Author of *The New Business Road Test*

Rob Fitzpatrick

THE MOM TEST

How to talk to customers and learn if your business is a good idea when *everyone is lying to you*

CRACKING the PM INTERVIEW

How to Land a Product Manager Job in Technology

GAYLE LAAKMANN MCDOWELL | JACKIE BAVARO

Working Identity

Unconventional Strategies for Reinventing Your Career

Herminia Ibarra

"One of the year's most important business books. Sophisticated and savvy…"
— Daniel Pink, author of *Free Agent Nation*

HARVARD BUSINESS SCHOOL PRESS

FOURTH EDITION

From the Creator of CIRCLES, AARM & ESTEEM Methods™

LEWIS C. LIN
WITH TENG LU

THE PRODUCT MANAGER INTERVIEW

167 ACTUAL QUESTIONS & ANSWERS

Pick

What product management is and is not, theoretically and practically, to decide if PM is a good fit for you and your goals.

Activity

3 minute reflection at the end:

- What appeals to you?...
- How does this align with your strengths?...
- What are pros/cons of PM versus other career paths...

How it started
1931

C O P Y   MARKETING – Brand Teams, 1931

cc: Mr. W. G. Werner

    Mr. N. H. McElroy   May 13, 1931

    Mr. R. F. Rogan

                ADV**N. H. MCELROY

Because I think it may be of some help to you in putting through our recommendation for additional men for the Promotion Department, I am outlining briefly below the duties and responsibilities of the brand men.

This outline does not represent the situation as it is but as we will have it when we have sufficient man power. In past years the brand men have been forced to do work that should have been passed on to assistant brand men, if they had been available and equal to the job.

Brand Man

(1) Study carefully shipments of his brands by units:

(2) Where brand development is heavy and where it is progressing, examine carefully the combination of effort that seems to be clicking and try to apply this same treatment to other territories that are comparable.

(3) Where brand development is light

    (a) Study the past advertising and promotional history of the brand; study the territory personally at first hand – both dealers and consumers – in order to find out the trouble.

    (b) After uncovering our weakness, develop a plan that can be applied to this local sore spot. It is necessary, of course, not simply to work out the plan but also to be sure that the amount of money proposed can be expected to produce results at a reasonable cost per case.

    (c) Outline this plan in detail to the Division Manager under whose jurisdiction the weak territory is, obtain his authority and support for the corrective action.

How it's going
2025

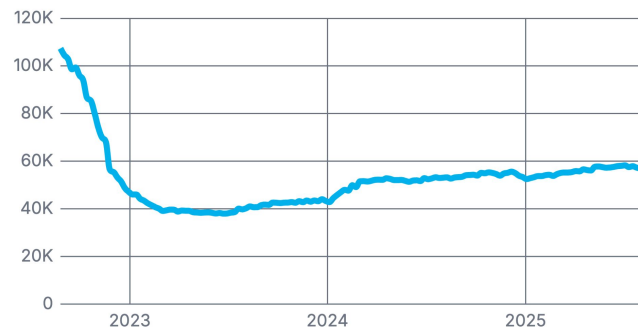**6,079 open PM jobs**

↑48.2% from low (4,102)

PM
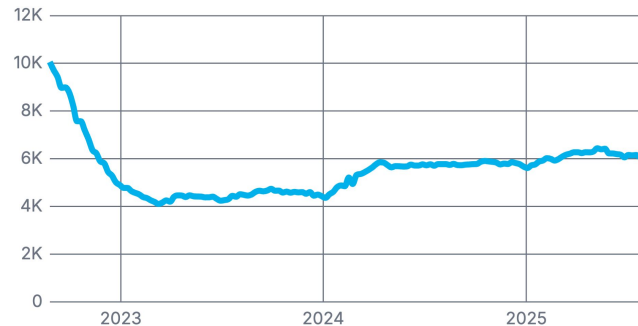
Aug 2025
trueup

57,512 open Engineering jobs
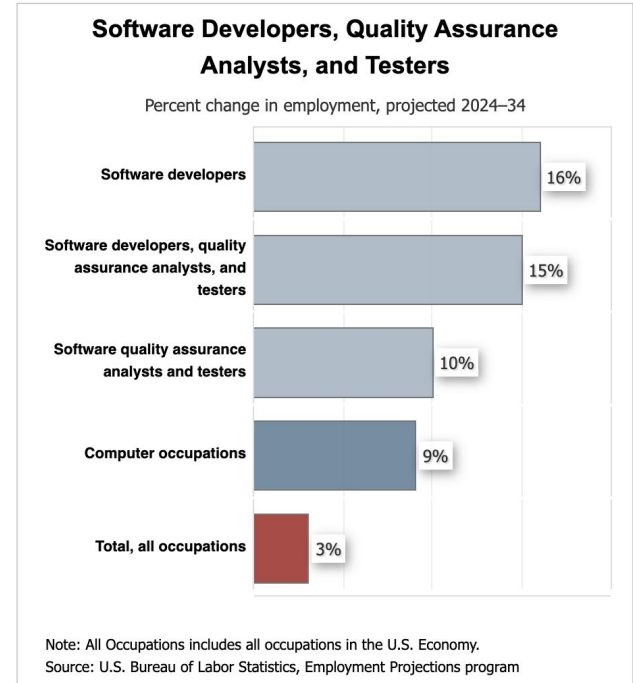
↑51.5% from low (37,970)

SWE

Aug 2025
trueup

Prediction: **AI** will largely **enable** human PM work

PMs will likely remain far fewer in number than software engineers, BUT it's likely that PMs will be more difficult to completely outsource

In the era of AI building, what matters even more is judgement about *what* and *why* to build. That is unlikely to be on the trailing edge of agentic outsourcing.

Today, we're seeing the most impact in customer understanding, rapid prototyping, and documentation (Lovable, Figma Make, and GPTs) – and an explosion of AI-first jobs.

Software Developers, Quality Assurance Analysts, and Testers

Percent change in employment, projected 2024–34

Software developers	16%
Software developers, quality assurance analysts, and testers	15%
Software quality assurance analysts and testers	10%
Computer occupations	9%
Total, all occupations	3%

Note: All Occupations includes all occupations in the U.S. Economy.
Source: U.S. Bureau of Labor Statistics, Employment Projections program

So, what **do PMs do**?

Deliver products that users love.

But what do they actually **do?**

What

- Responsible for **the result**
- Build bridges from **problem** to **solution**
- Difference between **good and great** - organizations don't *need* PMs
- **CEO** and the **janitor**, in one
- A team's **representative** to the world, inside and out
- Makes **ambiguity actionable**, always without enough data

How

- Leadership **without authority** to get everyone on the same page
- **Customer** voice (not customer gofer) to build what matters
- **Glue** between teams with fluent **communication** across disciplines
- Forest and trees **together** to prioritize
- Saying **"no"** to drive the most important work

PM vs other functions

- **Product management**
  What game are we playing? What counts as a goal, and how many points?

- **Program management**
  Which plays are we running, when? What's the score? How much time is left?

- **Design**
  What do the plays look like? How can we make them easy to run?

- **Engineering**
 On the field, playing the game. Engineering managers quarterback.

- **Marketing, Communications, and Government Relations**
  Defensive and offensive strategists, announcers and commentators

Example: Scaling EEW

Mission: provide the most accurate, earliest warning to as many users as possible.

Challenge: go from a beta product in just a few countries to one live across the globe.
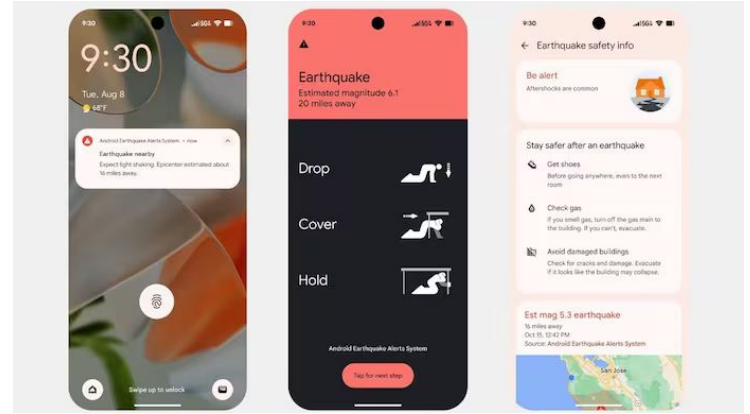
Example: scaling EEW

Over ~8 months, we:

- **Defined goals** based on users, legal requirements, infra, with gating metrics
- **Created a plan**, in consultation with outside experts
- Designed, built, and launched **new alerts** to address markets, languages, guidance
- Made substantial gains in **algorithmic accuracy**
- Lobbied for **internal resourcing**
- Approved a 3-tranche **rollout strategy** based on risk, impact, legal climate
- Monitored and iterated via **new feedback mechanism** and infrastructure
- **Publicized** launch with the media

Android Earthquake Alerts: Detections and alerts

- Android Earthquake Alerts
- Android with ShakeAlert
- Alert: Shaking MMI 5+
- Alert: Shaking MMI 3+
- Detection: MMI 3+
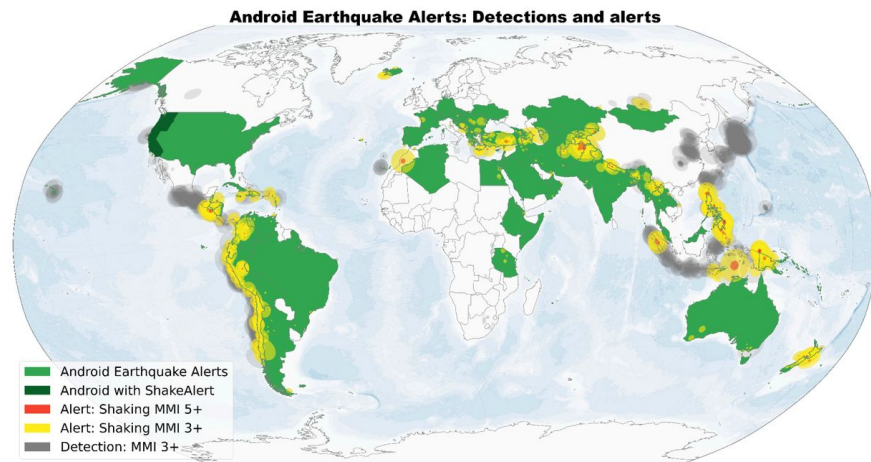
What does it look like across companies?

Organization type	Systems and support	Freedom	Predictability and security	Growth potential	Product lifecycle
Big tech (FAANG)	High	Low	High	Slow	Design / develop/ deliver
Speciality tech (Unicorns)	Medium	Medium	Medium	Medium	Design / develop / deliver
Startup Later stage (>B)	Medium	High	Medium	Fastest	Full scope
Startup Early stage (<B)	Very low	Very high	Low	Fast, unless hypergrowth	Full scope

A Tuesday in the life...

Big Co PM

- London team standup
- Legal : PM RE: launch
- ELS team meeting
- Sync re: FCC inquiry
- Exec launch review weekly
- Lunch w/ PM team
- EEW algo team sync
- 1:1 Micah / Boone
- UXR findings review
- Australia team standup

Startup PM

- Onsite with customer
- Drafting issues for the engineering team to build
- Answering user support tickets
- Eng/PM daily sync
- Shipping code to fix a customer-facing issue

Finding a role

Questions and preferences:

- Are there great managers or leadership you want to follow?
- What learning style do you you want to emphasize?
- How important is stability?
- How important is growth - and what kind?
- How important are values and mission alignment?

Can guide where you look:

- Job boards at big and mid-size organizations
- LinkedIn, Indeed, or other job boards for the long tail
- Idealist, All Tech Is Human, and Probably Good for impact-oriented

A note on picking

Working Identities, by Hermina Ibarra

- Discovery is active - rather than thinking, figure out *what is easiest and most promising* to test - and then escalate tests in level of commitment
- The path is crooked - accept that change is not immediate and *requires progressive steps*
- Don't find your true self - *explore one or more possible version* of the future
- Take a *portfolio approach* to trying careers - select a few foci and run small experiments in each
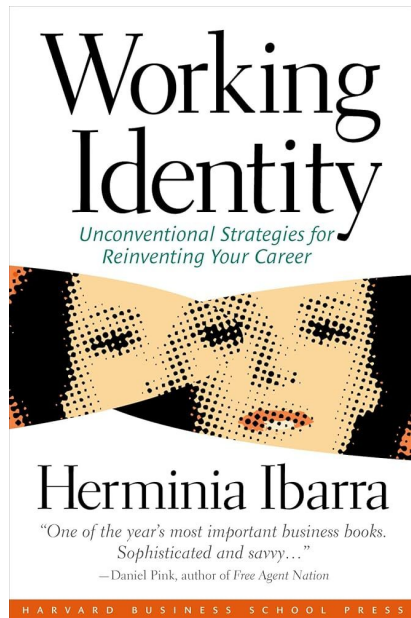
Reflection Activity

3 minutes on the clock…

Grab a paper, doc or phone note:
- What appeals to you? What doesn't? What else do you want to know?
- How does this align with your strengths? Where would you like to grow?
- What are pros/cons of PM versus other career paths you're considering?

Land

The three cornerstones of landing a job in product management, with a focus on interview skills, plus a few mini practice interviews under your belt.

Activity

At the end of this section, we'll spend a total of 45 minutes practicing two mini cases each as interviewer and interviewee.

Landing the job: 3 pillars

1. **Building a network**
   → Helps get your resume to the right people

2. Creating compelling collateral
   → Gets you an interview

3. Acing the interview
   → Gets you a job

Building a network

The point: get your resume reviewed
What you need: a reason for them to help, a clear request

Start where you already are or have been:

- Alumni networks (Columbia, undergrad, high school)
- Previous employers
- Your neighborhood
- Sports teams
- Hobbies
- Use your network to build a network (LinkedIn)

Using a network

Ask for:

- Informational interviews about a field or profession
- Questions about a role
- A referral for a specific opening
- Introductions to others for any of the above

In all cases, make the case and make their life easy:

1. Keep your connection top-of-mind
   "Have you been back to Columbia since you graduated? Campus hasn't changed much!"

2. Research in order to be specific, and include a "why"
   "Would love an intro to Nika - I admire her work on emerging stablecoin regulation from her last two roles, and am hoping to get her take on a role that I'm considering."

3. Include a blurb for easy forwarding

Jim Clayton · 2nd
CEO at Breville Group Limited
Sydney, New South Wales, Australia · **Contact info**
500+ connections

Sandeep Chivukula is a mutual connection

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Creating compelling collateral

The point: help you get an interview.
What you need: skimmable impact that shows a recruiter or founder your ability and fit
Where it goes: (1) Your resume, customized for the job; (2) LinkedIn; (3) potentially a cover letter

- **Your resume is a product deliverable**. Put your best PM skills to work: structure, prioritization, customization, accuracy
- Read in **~15 seconds** (by a human) or less (by an LLM), mostly looking for words/phrases (*unless* you've got a referral!), so use their frame from the job description
- **Talk other experience** into PM terms – be creative
- **One page**, period
- **Brief, specific bullets** about *the impact (you) had*, emphasis on *what's relevant* based on the job/company description
  > No: "Responsible for growing userbase"
  > Yes: "Led onboarding redesign that grew DAUs 300% YoY"
- If there's a cover letter, use it to connect your skills/experience to being a hand-in-glove fit for the role. Short and sweet.

10 seconds: what do you make of this resume?

Ready?

PROFESSIONAL EXPERIENCE

Product Manager | **Major Tech Company** | **San Francisco, CA | July 2022 – Present**

Advanced within the company while taking on increasing responsibilities. Initially served as one of three product managers on a social media team, where I led a workstream of three engineers and a designer to introduce music to the platform through features like 'music-in-feed.' Currently, as the sole Product Manager on the Creator Support team, I lead a team of 11 engineers and cross-functional partners to address content moderation issues, developing solutions such as strike relaxation, self-remediation, and video appeals. These initiatives collectively increased daily content posted by creators by +0.6% and boosted monetizable views by +1.2%.

- **Vision and Roadmapping:** Managed and balanced requests from senior leadership with feedback from product and integrity teams. Oversaw brainstorming and prioritization of over twenty projects to drive increased daily creator content and monetizable views.
- **Creative Solutions:** Proposed an innovative idea allowing users to add music to feed posts, resulting in a +3.2% increase in daily feed content from teens.
- **Team Leadership:** Fostered a collaborative environment by driving effective meetings, organizing offsites, and enhancing operations. Consistently received high praise for building strong team chemistry and leading with a positive attitude.
- **Agile Methodologies:** Delivered multiple projects including video appeals and self-remediation using Agile and Scrum frameworks, all successfully launched on schedule.
- **Stakeholder Management:** Led discussions with leadership and cross-functional teams to align on initiatives centered on creator monetization and user experience, while mitigating integrity concerns.
- **User Research:** Collaborated with researchers to design surveys and conduct interviews with users. Insights helped shape the product roadmap, resulting in successful feature launches.

10 seconds: what do you make of this resume?

First Name, Last Name
Email, Contact, Linkedin

SUMMARY
Product Manager with 3 years of experience leading impactful features for large-scale consumer social media platforms. Spearheaded the development of a 'music-in-feed' feature, which enabled users to enhance their posts with music, driving a +1.3% increase in daily user content and generating over a billion music-enhanced posts. Eager to leverage my expertise in product innovation and user engagement to contribute to a dynamic, growth-oriented consumer tech company.

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Financial Operations Analyst | **Finance Firm, New York, NY** Summer 2021
Played a key role in a four-person team developing a unified commissions system, streamlining operations across financial instruments. This initiative increased process efficiency by 15%.

Business Analyst | **Consulting Firm** | New York, NY | **Summer 2019 & 2020**
Worked with a state government to enhance contact tracing during the COVID-19 pandemic. Recommended improvements to tech services, resulting in a 35% increase in tracing efficiency.

Board Member | **State Board of Education** | Sacramento, CA | July 2017 – July 2018
Appointed by the Governor to represent 6.2 million students in California K-12 education as one of 11 members of the state board. Voted on topics concerning school accountability, curriculum, assessment, and charter schools.

EDUCATION
State University, United States
Bachelor of Arts in Economics, May 2022

AFFILIATIONS, SKILLS & INTERESTS
Skills: Python, Java, Adobe Products, Excel, Public Speaking
Interests: Consumer Tech, Social Media Content Creation, Music & Music Production

Ready?

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Product Manager | **Major Tech Company** | **San Francisco, CA** | **July 2022 – Present**

Advanced within the company while taking on increasing responsibilities. Initially served as one of three product managers on a social media team, where I led a workstream of three engineers and a designer to introduce music to the platform through features like 'music-in-feed.' Currently, as the sole Product Manager on the Creator Support team, I lead a team of 11 engineers and cross-functional partners to address content moderation issues, developing solutions such as strike relaxation, self-remediation, and video appeals. These initiatives collectively increased daily content posted by creators by +0.6% and boosted monetizable views by +1.2%.

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Interview preparation

The point: demonstrate you can do the job

What you need: a canvas on which to show structured, rigorous, thoughtful work

- **Practice, practice, practice...** then practice more. There is no substitute.
  - Consider 20+ practice interviews at a bare minimum
  - You are building intuition and context when, inevitably, the question is different than you expected
  - Use classmates, friends, family, online study groups, or LLMs for practice interviews
- Craft **a plan and schedule** that you can stick to
- **Customize** for every company and role
  - Download their product, test their competitors, read about the market, revenue model, recent announcements, study their mission, learn their culture/values
  - Think about the context: why might they be hiring? What are their biggest challenges? What are they likely to be worried about?

A typical interview flow

Big tech

Startup

Recruiter resume review

↓ weeks

Recruiter phone screen

↓ weeks

Day of onsite interviews
3-6+, leadership last

↓ weeks

Followup / leadership, if needed

Hiring manager resume review

↓ days

Hiring manager phone screen

↓ days

Onsite interviews w/ current employees + founders

Offer!
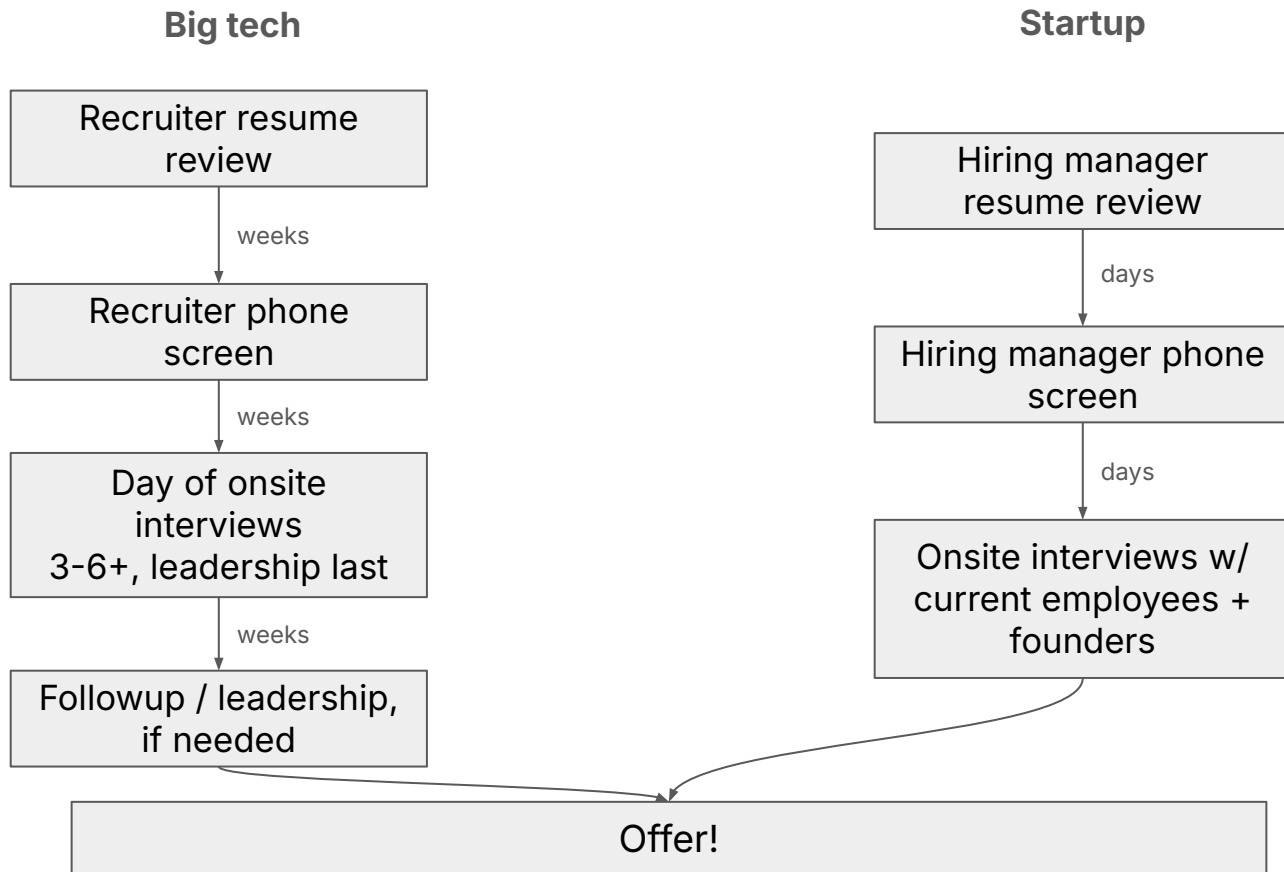
On-site interview components

An example 45-minute interview:

- Interviewer setup and intro (2 minutes)
- Behavioral intro (~5 minutes)
  - "Tell me about yourself"
  - A warmup/bridge question
- Quick scenario (~8 mins)
- Deep-dive scenario (~20 mins)
- Questions for me (~5 mins)

What's happening on the other side of the table?

Big tech

- Recruiters screen candidates and refer to interview process

- Interviewers often from general pool (at least 1, sometimes all, not from target team). Standardized scoring in internal tool

- Hiring committee or equivalent makes hiring decision, often with limits on control of hiring team and single-member veto

Startup

- Typically take notes, and hold informal checkins following each interview and/or round

- Likely interviewing with the people you'd be working with. Often with less formal evaluation frameworks

- Often cofounder(s) are decisionmakers, with input from team leads at larger startups

Primary on-site interview types

- **Behavioral**
- Product
  - Design
  - Strategy
- Analytical
  - Estimation
  - Debugging
- Technical
  - Algorithms
  - Systems design

Behavioral

Master examples in advance to focus on delivering strategic answers with precision.

Questions are just talking point opportunities: think about what's behind the question for the interviewer, and the stories that you want to share.

- Pitching Tell me about yourself... Why this company / role? Where do you see yourself in N years?
- Leadership A decision you made that wasn't popular?
- Challenges A time when you didn't have the data you needed to make a decision. What'd you do next?
- Mistakes and failures
- Successes
- Teamwork A time when two senior leaders disagreed about the path forward. How did you resolve it?

- *Drilldown on anything that's on your resume*

The (N)SAR Framework

To keep answers focused, you can use SAR:

- **Nugget** - one-phrase summary
- **Situation** - what was going on?
- **Action** - what did you do?
- **Result** - what did that create?
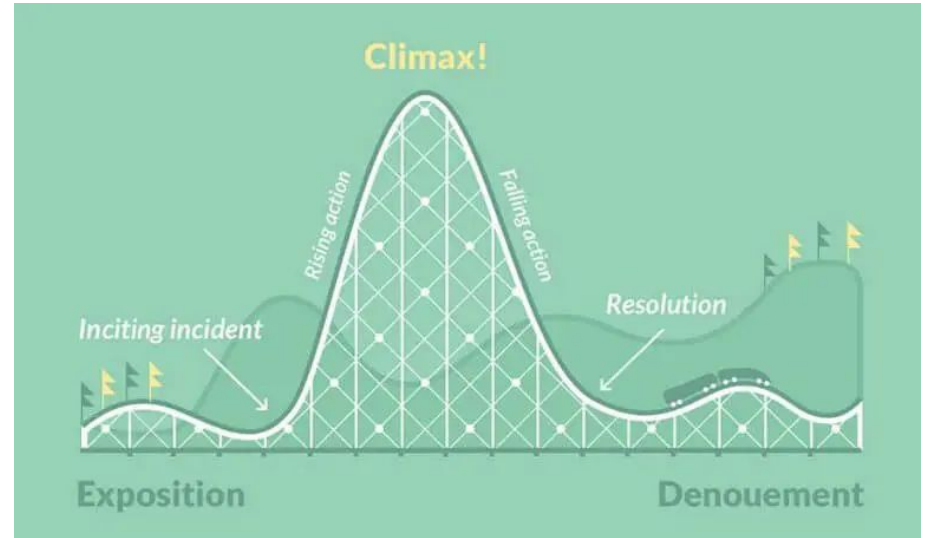
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- Behavioral
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- Analytical
  - Estimation
  - Debugging
- Technical
  - Algorithms
  - Systems design

The power of structure

How would you grow user share?

"Okay, that's a good question. Well, one thing I'd focus on is marketing ... and, hmmm, another thing, the onboarding flow. And how about... actually, do we have any metrics on retention?"

vs

"Great question. Give me just a moment to think about it... Okay, there are 3 threads we should pursue: marketing, onboarding, and retention. I'll review each in turn, and then think about pros/cons of each approach and how to prioritize them. Is there any particular area you'd like me to focus on? Otherwise, I'll dig in with marketing."

The best candidates

1. **Structure, waypost, and summarize** - chart a path for your interviewer, and then lead them along it explicitly. Begin with and end with a summary.
2. **Take the lead, think aloud, and collaborate** - lead, but get your interviewer on your team: "Okay, I'm thinking this would be very simple if we knew X. We could assume Y, unless you know?"
3. **Co-manage time** with the interviewer ("I know we have just 10 minute sleft - want me to elaborate?") – forest and trees.
4. **Don't get discouraged or stuck** - if cut off, they move on; if stuck, they use a placeholder and keep going.
5. **Use frameworks as inspiration**, not a rote exercise. It doesn't matter which you pick or how closely you follow, as long as you come out with a good answer.

The basic shape: CASAS

CASAS is an easy, broadly-applicable approach to any product-related question.

If you're ever in doubt, or drawing a blank, it's a good idea to come back **home**.

It's fine to take a (brief) pause.

A bad decision or assumption makes little impact if it's couched in great structure.

- Clarify
  - Ask for any assumptions
- Approach / User Needs
  - State hypotheses, use metaphors
- Solution
  - Defend, and then highlight flaws
- Alternatives
  - What else might you do? Pros/cons for bonus points
- Success
  - Implementation (eng, GTM, business model)
  - Metrics

Product Design

These look like:

- **Design X for Y**
  - A subway pass for elderly users
  - A hotel for 4-year-olds
- What would you improve about X
  - What would you improve about GMail?
- What is your favorite product and why?

◯ CIRCLES Method

- ▣ Comprehend situation — What? Who? Why? How?
- ♂? Identify customer — ♁♁ Personas
- ☺: Report customer needs – as___, I want___ so that___
- ²╤₁₃ Cut through prioritization → ROI estimate?
- ₁₂₃≡ List solutions
- ✎ Evaluate trade-offs - thoughtful, analytical, objective
- 💬 Summarize recommendation – What, recap, why vs. others

Typical Product Sense Interview Flow

CLEAR COMMUNICATION

PRODUCT MOTIVATION

Examine the product's purpose and mission.

🕐 **< 5 min**

SEGMENTATION

Define the audience and prioritize a target segment.

🕐 **< 10 min**

PROBLEM IDENTIFICATION

List and prioritize key pain points faced by the chosen segment.

🕐 **< 10 min**

SOLUTION DEVELOPMENT

Brainstorm and prioritize a solution for the problem, including a v1.

🕐 **< 10 min**
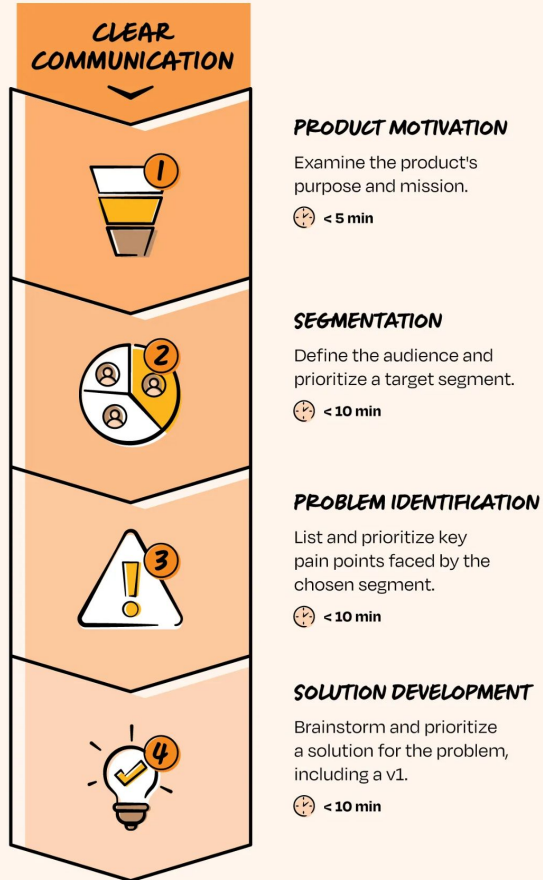
For any framework

Clearly articulate your plan before you begin. **Take the reins** and articulate your assumptions. Consider a template.

Use **transitions** to clarify when you move from one approach to the next.

Users are your anchor. If in doubt, come back to them.

As you practice design questions, develop your own **reference bank** of ideas and notes to help keep you moving; over time, you'll need it less.

If you need an "innovative" idea, consider:

- Partnership
- Recommendations
- Subscriptions
- New tech

Product Design - alarm clock

Example: alarm clock for a user who is blind

Product Strategy

These look like:

- Why did Google decide to enter the cellular service market?
- Why did Facebook acquire Instagram for $1B while Instagram was losing money?
- Should Breville enter the market with a new air fryer?
- Would you launch Amazon in India? Why or why not?

Product Strategy

How to approach

There are a **lot** *of frameworks*. Choose based on topic, and feel free to cherry pick.

- Consumer decision making
  - AIDA: attention / interest / desire / action
  - REAN: reach / engage / activate / nurture
- Marketing
  - 4P's: product / price / promotion / place
- Market entry
  - SWOT: strengths, weaknesses, opportunities, threats
  - 5C's: company / competitors / customers / collaborators / climate
  - Porter's 5 Forces: rivalry, buyer power, supplier power, threat of substitutes, threat of new entrants

Practical tip

Building a reference sheet of common frameworks and considerations for strategy questions can help you internalize them.

Primary on-site interview types

- Behavioral
- Product
  - Strategy
  - Design
- **Analytical**
  - Estimation
  - Debugging
- Technical
  - Algorithms
  - Systems design

Analytical - Estimation

These look like:

- How many golf balls fit in a 747? How many tennis balls fit in a 2 bedroom apartment?
- How much does a school bus weigh?
- What's GMail's annualized ad revenue?
- How much money do people spend on haircuts, worldwide, each year?
- How many people does Apple hire each year?

Analytical - Estimation

How to approach

- **Structure and approach** > your answer
- **Start writing/typing**, you can't keep these in your head
- Choose your numbers wisely to **make the math easy**
- There are usually **many paths** - bonus points for outlining a few. Consider **top down vs bottom up.**
- You should **memorize basic figures**

1. **Clarify** the question
2. **Inputs**, figuring out each one
   - It's okay to ask, but offer to figure or estimate
   - Study and learn some common numbers
3. **Equation**
4. **Alternatives**
5. **Answer**
6. **Sanity check**

Analytical - Estimation

Example: **how much does the US spend on dog food each year?**

Clarify: wet and dry food? Stores or consumers?

Inputs: 300m people in the US, ? dog owners, dogs eat 1-2x/day, ? lbs of food / email, medium-sized bag of dog food is 20 lbs, ? cost per bag, most dogs eat dry food, ? dogs/person

Equation: [# dogs in US] * [food consumption / year] * [cost per unit]

Alternatives: Could back in from market value of the producers, lots of approaches to # dogs

Solve: [# dogs] - break down US pop by income, geo, kids...
→ if, eg, kids: 90% have kids, but 20 years at home, so 30% at any time

Sanity check: what about working dogs? How might our estimate of # dogs be off?

Analytical - Debugging

These look like:

- You're a PM at Google. Ad revenue is down 50% YoY. You're tasked with figuring out why. What do you do?
- You just launched a new shopping feature on Instagram. Conversion rates have trended down since launch. Why?
- Page load times for Yelp have climbed 20% in the last month. What's going on, and what should we do about it?

Analytical - Debugging

How to approach

McClure's Metrics for Pirates

Don't shortchange investigation at the outset to uncover additional facts

For these questions, **collaboration with the interviewer** is critical

AARRR (Pirate) Metrics Framework

Acquisition: How do users find you?

Activation: How do they experience value?

Retention: Do they stay with you?

Revenue: How do you make money?

Referrals: Do they tell others about your product?
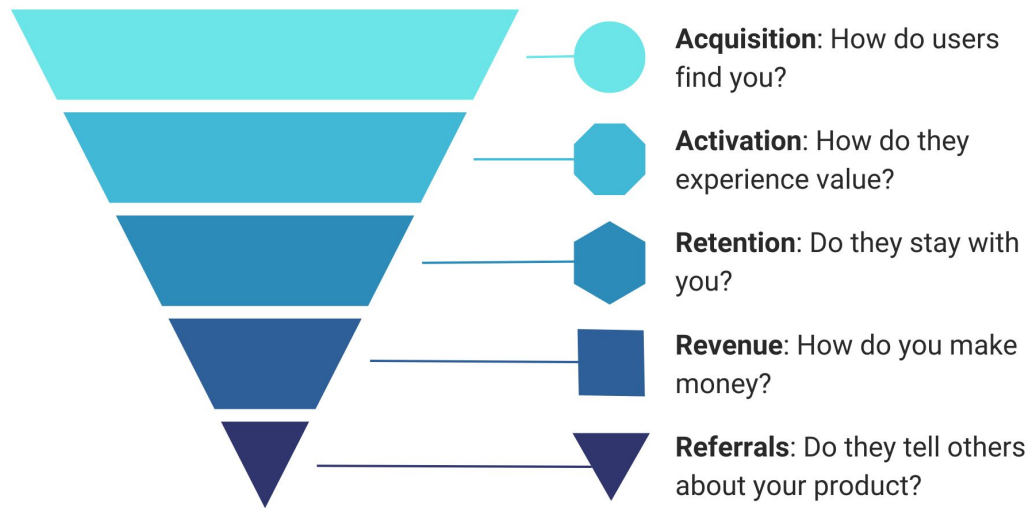
The Product Compass Newsletter

Analytical - Debugging

Example: you are the PM of YouTube Music. Revenue is down by 25% last month. What's going on, and what should we do?

- Clarify what's going on
    - Mobile vs desktop?
    - Onboarding or churn?
    - Some users? All users? Particular ages, personas, account ages? Geos?
    - Happening across other products?
    - Is this change abrupt or gradual? When did it start?
- Solutions
    - Internal
        - Correct data?
        - A payments or serving issue?
    - External
        - Other product launches? Competitor price changes?

Primary on-site interview types

- Behavioral
- Product
  - Strategy
  - Design
- Analytical
  - Estimation
  - Debugging
- **Technical**
  - Algorithms
  - Systems design

Technical

Goals: validate what's on your resume, ensure you have the technical chops to make good decisions and win the trust of other engineers and PMs.

- *Not* to show you have the best technical chops in the room – as a PM, you'll end up needing to *defer* technical decision-making
- The bar varies widely, so what you should prepare for depends on the company *and sometimes the team/role*
- As engineering masters graduates, you will excel
- Uncommon, but possible, that you will be asked to (pseudo)code solutions on a whiteboard

Technical - Algos

Usually rudimentary: sort, search, big O tradeoffs. Before investing time, understand what is required for your target companies. For many, **working familiarity with big O may suffice -** YouTube tutorials, not an algorithms textbook.

Examples:

- *What O(time) and O(space) does X function use?*
- Given array of positive integers with an empty spot (zero) at the end, insert an element in sorted order.
- Given a string, design a function to print all permutations of that string. Assume no duplicate letters.
- Implement bubble sort

Technical - System Design

These look like:

- Design Ticketmaster's backend infrastructure
- How should YouTube's video recommendation engine work?
- Design Twitter
- Explain the internet to a 5-year-old
- How would you make this chatbot infrastructure faster?

Technical - System Design

How to approach

- An omission from Cracking the PM Interview: you'll need to source your own
- Keep your PM hat on: start and end with first principles and good structure.
- Start basic before adding complexity; think aloud as you go
- Any question has 1+ key concepts behind it that the interviewer is looking for – for example:
  - Scalability: vertical vs horizontal; partitioning/sharding CAP (consistency, availability, partition loss tolerance), caching, read replicas, load balancing
  - API design: context in and out, abuse, scalability
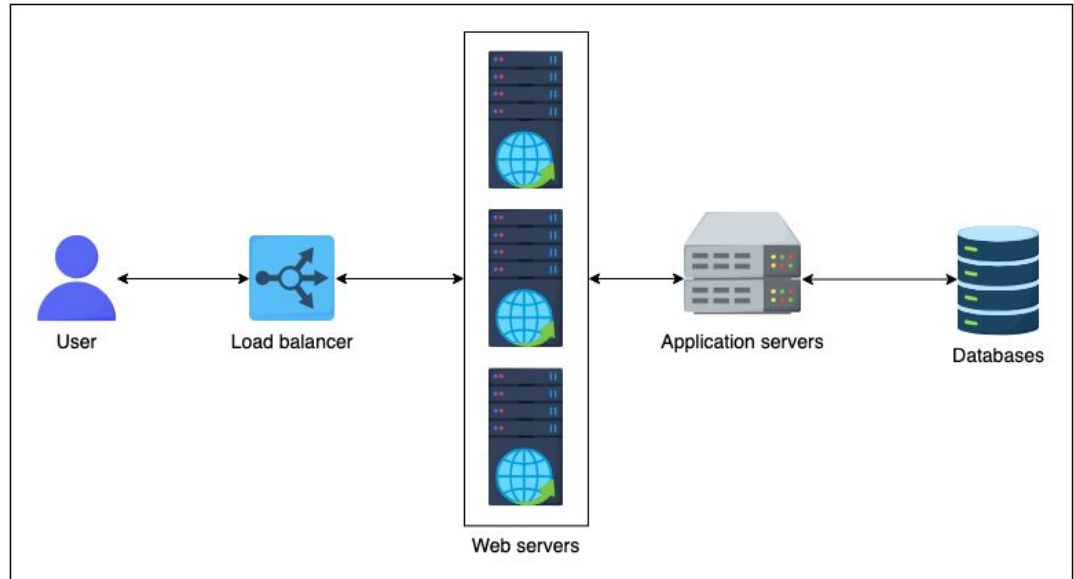
A very simple framework:

- **Requirements**
- **Data** structures
- **System** architecture

Technical - System Design

Example: Design Ticketmaster's backend infrastructure

- Outline your process
- Requirements
    - Functional
    - Non-functional
- Data structures
    - Event
    - Venue
    - Performer
    - Ticket
- Architecture
    - APIs only if required

Primary on-site interview types

- Behavioral
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- Technical
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Zooming out: no bright lines.

This was my favorite deep dive question:

The mayor of SF asks you for a proposal to blanket San Francisco (or whichever city the candidate was from) with public WiFi.

- How would you go about it?
  - Systems design
  - Product design
  - How much do they assume without thinking?
- How much would it cost?
  - Analytical - estimation
- What is your overall go/no-go recommendation for the mayor, given the above?
  - Product strategy

Finally, ask *your* questions!

Don't forget to have good, thoughtful questions for the interviewer at the end – doubly so with the hiring manager.

- What excites you most about your job?
- Can you share a bit about your management philosophy? How do you like to work with your team?
- What are some of your biggest challenges today?
- What qualities make someone most likely to succeed here, and why?
- Where have you seen candidates not be great fits, and why?
- If you could change one thing about the organization, what would it be?
- Where do you see the company in 2 years?

Let's try it!

Pair 1

- **Not yet!**
- We're going to focus on the core PM interview skills
  - 10 minutes each with this partner, then we'll switch (new questions each round)
- I'll announce when time's up
- 1 minute to find a partner that you're NOT sitting next to
- The person who stayed up later last night goes first as interviewee

Interviewee

- You **will not** get through most of the question
- Your goal is to practice taking a deep breath and structuring the problem.

Interviewer

- Pay **close attention** to the way your partner **does or does not structure** their answer. What would you have done differently?
- If asked, **make up some answers**. For example: "Wet food or dry food or both?" – just pick one! Feel free to say "you pick", too.

Pair 1 - Round 1

Product strategy
If you were the CEO of Microsoft, what product would you cut, and why?

Product design
Create an experience around Disney theme parks using your phone.

Analytical - diagnosis
Shopify's global conversion rate (aka, the percentage of customers that start a cart who later complete a purchase) is trending down. What next?

Pair 1 - Round 2

Product strategy
Should Uber roll out an ultra-luxury category (eg, Bentley, Rolls Royce)?

Product design
Design a local service recommendation engine – better than Yelp – for consumers.

Analytical - diagnosis
You're a PM at Reddit. The growth rate of posts is slowing. What is going on?

Check in!

Pair 2

- **Not yet!**
- We're going to focus on the core PM interview skills
  - 10 minutes each with this partner, then we're done!
- I'll announce when time's up
- 1 minute to find a partner that you're NOT sitting next to
- The person who stayed up later last night goes first as interviewee

Interviewee

- You **will not** get through most of the question
- Your goal is to practice taking a deep breath and structuring the problem.

Interviewer

- Pay **close attention** to the way your partner **does or does not structure** their answer. What would you have done differently?
- If asked, **make up some answers**. For example: "Wet food or dry food or both?" – just pick one! Feel free to say "you pick", too.

Pair 2 - Round 1

Product strategy
You're a PM at Expedia. They want to start selling train tickets, a new category. What would you do?

Product design
What would you do to improve Facebook login?

Analytical - estimation
How much does a Manhattan Uber driver make in a day?

Pair 2 - Round 2

Product strategy
How would you go about launching Uber in Mexico?

Product design
How would you improve Dropbox? What feature is still missing?

Analytical - estimation
How much does it cost to run GMail, per user, per year?

Quick reflection (2 minutes)

- What was that like?
- What do you want to focus on next time you practice?
- What felt like it came naturally?
- Whats something you learned from your partner?

Keeping the momentum

- Use your friends and classmates - consider swapping contact info with your pairs from this class
- Plenty of online communities
- Head up, stay strong - even if you do a small part of what we've covered today, you'll be a good position to perform well.

Grow

Tools to win the early days and shape a long-term career arc.

Negotiate your offer

Offers typically consist of the following. Assume that **everything** is negotiable:

- Starting date
- Signing bonus
- **Starting level** ← big tech - see levels.fyi
- Base salary
- Equity grant with vesting schedule
  - At startups, cash vs equity is a common tradeoff
- Mostly for execs:
  - Goal-based compensation
  - Acceleration clauses and other specialized equity tools
- Don't accept the first offer you get!
  - Negotiate on differential value - you make the most headway with something that matters more to you than it costs the potential employer to offer
  - Ask accommodation w/r/t timelines from other employers, but do so carefully
  - Think creatively about win-wins:
    - A travel or training stipend
    - An extra week leave, unpaid
    - A home office refit stipend

The virtuous cycle of transitions
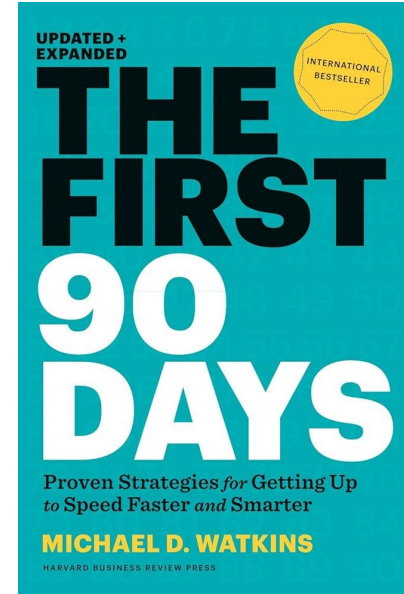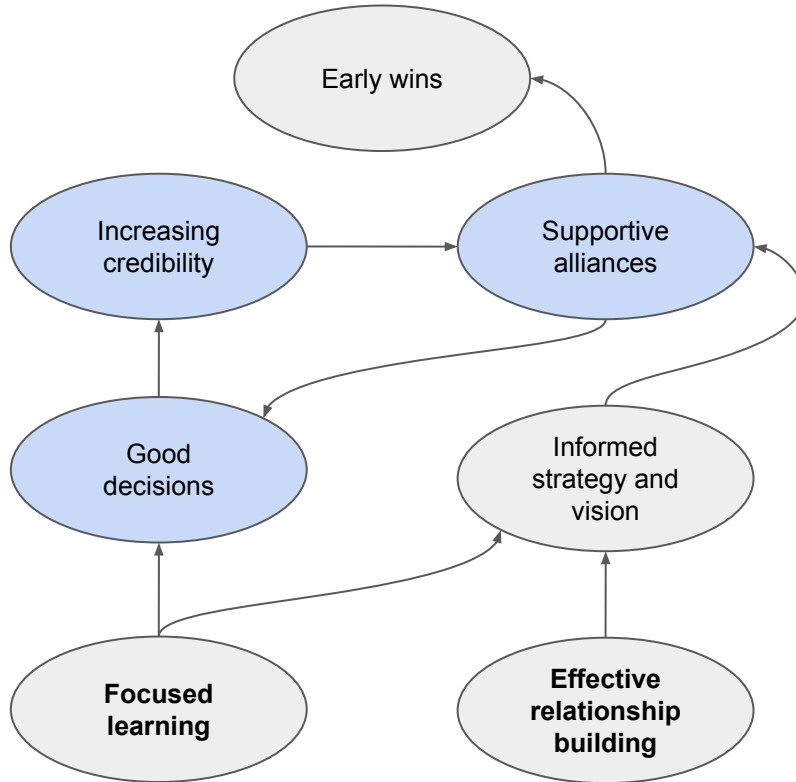
Find a mentor

Choose wisely - a non-insignificant time commitment:

- Formal mentor matching platforms
- But almost anywhere within or outside of an organization can be a good fit

You are pitching for their time:

- Personality fit is a requirement
- Demonstrate your commitment:
  - Pitch on *why them*
  - Come prepared with a set of *expectations* for your work together
  - Consistently prioritize it

Pick the growth that matters to you

- **Promotion / increasing responsibility**
  - Expectations - discuss future success then assemble resources and a plan to get there.
  - Identify - find the highest-priority projects – close to the core or new frontiers - within or without
  - Move (if needed) - express explicit interest and find ways to demonstrate value (eg, volunteer)
- **More time outside of work**
  - Look for well-established areas of an organization
  - Crowdsource from colleagues once inside, can be very manager/team-dependent
- **Higher compensation**
  - At big companies, competing offers are high leverage for the same role, as long as you have a strong performance track record
  - Consider moving companies - new signing bonus
- **Variety**
  - Variety can be an asset as much as specialization – in particular for some leadership roles.
  - Being inside an organization is the best way to move - coffee chats are easy
  - Get creative in linking what you've done to what you want to do next

    For example, on Search, I did a bunch of data pipelines work that I could talk into an initial

Today, we covered:

(1) **Pick**
What product management is and is not, theoretically and practically, to decide if PM is a good fit for you and your goals.

(2) **Land**
The three cornerstones of landing a job in product management, with a focus on interview skills, plus a few mini practice interviews under your belt.

(3) **Grow**
Tools to win the early days and shape a long-term career arc.

Thank you,
future PMs!

Stay in touch

- micahberman.com
- mic@hberman.org
- linkedin.com/micahberman

LinkedIn   Notes

Bonus round - change is a chance to scaffold

Finance

- Budget before you get accustomed to a higher income - now and each time you get promoted
- If you can:
    - (1) build an emergency fund
    - (2) max out your company's 401k matching (at minimum)
- see also: upcoming Money Management PDL offering

Life

- Any time you start a new role, it's a chance to get closer to the version of yourself that you want to be. Put in place 1 new system to help make that happen.

Further reading notes

-80k hours and angellist

Cracking PM interview nad LIn's Product Manager Interview Q&A

Product Management: A day in the life

Where do you work?

What makes working there unique?

Why did you want to be a PM?

What principle has helped you grow your career?