

# 1. HOW TO CRACK PRODUCT SENSE/BUSINESS CASE/METRIC PROBLEMS?

# CRACKING PRODUCT SENSE PROBLEMS



- What are Product Sense/Business Case/Metric Problems?
  - Why and when it is asked during an interview?
- 3 Categories of Questions & Frameworks
  - Diagnose a problem
  - Measure success
  - Launch or not
- Tips to Ace the Interview

WHAT ARE PRODUCT SENSE PROBLEMS?

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- Why they are asked?
  - Evaluate candidates' ability to **define metrics**
  - **Diagnose and solve** real product problems
  - Some companies require familiarity on their products but most don't
- What if you don't have any experience?
  - You could master it by **practice**
  - You are on the right track by watching this video :)

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WHAT IF YOU DON'T HAVE  
ANY EXPERIENCE?

WHAT ARE COMPANIES LOOKING FOR?

# WHAT ARE COMPANIES LOOKING FOR?



- **Structure** - demonstrates a systematic approach
- **Comprehensiveness** - covers all important aspects
- **Feasibility** - practical enough that it could be implemented realistically
- When it is asked during an interview?
  - Technical phone screen and onsite interview ( $\geq 1$  round)



# THREE CATEGORIES OF QUESTIONS & FRAMEWORKS

# DIAGNOSE A PROBLEM

You are given a scenario that one of the **important** metrics has shifted to the **negative** direction and you are asked to figure out the **root cause** of the issue

Why someone gets 👍 while others get 👎?

# FRAMEWORK (DIAGNOSE A PROBLEM)



1. Clarify the scenario/metric
2. Time - sudden or stable?
3. Other product/feature by the same company?
4. Segment by user demographic and behavioral features
5. Decompose the metric (optional)
6. Summarize overall approach

# FRAMEWORK (DIAGNOSE A PROBLEM)



## 1. Clarify the scenario/metric

- e.g. Estimate Time of Arrival
  - How start time and end time are defined?
  - Is start time at request or at pickup?

# FRAMEWORK (DIAGNOSE A PROBLEM)



## 2. Time - sudden or stable?

- Internal - Data source? Data collection? Bug?
- External - Seasonality? Industry trend? Competitors? Special event?  
Natural disaster?

# FRAMEWORK (DIAGNOSE A PROBLEM)



3. Other product/feature by the same company?

- Have we made any change to our product line?
- Have other related products experienced the same change?

# FRAMEWORK (DIAGNOSE A PROBLEM)



## 4. Segment by user demographic and behavioral features

- Regions
- Languages
- Platforms, i.e. iOS, Android, Web



# FRAMEWORK (DIAGNOSE A PROBLEM)



## 5. Decompose the metric (optional)

- Daily Active User (DAU) =  
$$\text{Existing users} + \text{New users} + \text{Resurrected users} - \text{Churned users}$$
- ETA
- Ratio metric - numerator and denominator

# FRAMEWORK (DIAGNOSE A PROBLEM)



## 6. Summarize overall approach

- Most reasonable causes
- How to fix

# MEASURE SUCCESS

You are asked how to measure the success/health of a product/feature

# FRAMEWORK (MEASURE SUCCESS)



1. Clarify function and goal of the product/feature
  - What it does? How is it used? Who is it for?
  - Huge **red flag** if you start answering without clarification!

# FRAMEWORK (MEASURE SUCCESS)



## 2. Define metrics (no more than 3)

- 2 **Success** metrics to measure the success, e.g. daily active users, number of bookings and conversion rate
- 1 **Guardrail** metric, should not degrade in pursuit of a new product/feature, e.g. cancelation rate and bounce rate
- Good metrics should fit the **context**

# LAUNCH OR NOT

You are asked how to test a product idea  
or whether to launch a product/feature

# LAUNCH OR NOT



Always need to make a recommendation on whether to launch the product or not!

# FRAMEWORK (LAUNCH OR NOT)



1. Clarify goal and define metrics
  - Similar to *Measure Success*



# FRAMEWORK (LAUNCH OR NOT)



## 2. Experimentation

- How to design it?
- How to split the users?
- How long to run it?

# FRAMEWORK (LAUNCH OR NOT)



## 3. Recommendation Based on Experiment Results

- Link results to the **goal** and **business impact**, e.g. what does 0.01% lift in conversation rate translate to revenue?
- **Conflicting results**, e.g. increase in DAU but also increase in bounce rate
- **Short-term vs. long-term**, e.g. launch brings in more users to the platform thus benefits may outweigh drawbacks

# TIPS TO ACE THE INTERVIEW

## Before the Interview

- Research the company
  - deeper and better conversation

## During the Interview

- Always clarify the question
  - High-level goal
- Listen to the feedback, don't follow frameworks rigidly
- Write down thought process with bullet points