

# Lecture 2: September 7

Discovery and Research

# Reminders

- Post-Lecture Kickoff Meeting with Mentors
- Trello boards have been sent out
- Tuesday's class will be intro to presentations
- Project proposal draft - start with today's brainstorming as baseline to have conversations with mentors/instructors in week of September 19
- Resumes due by Sunday night

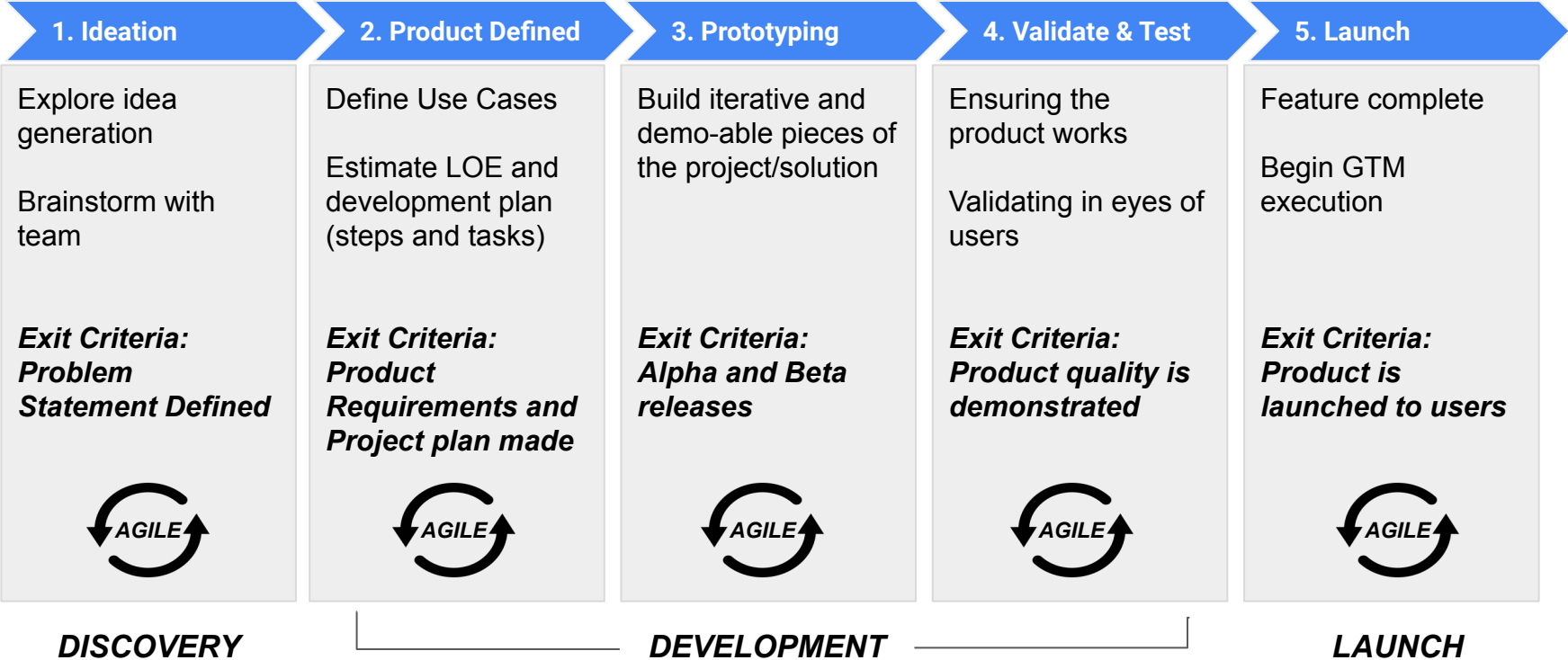
# Agenda

## Lecture

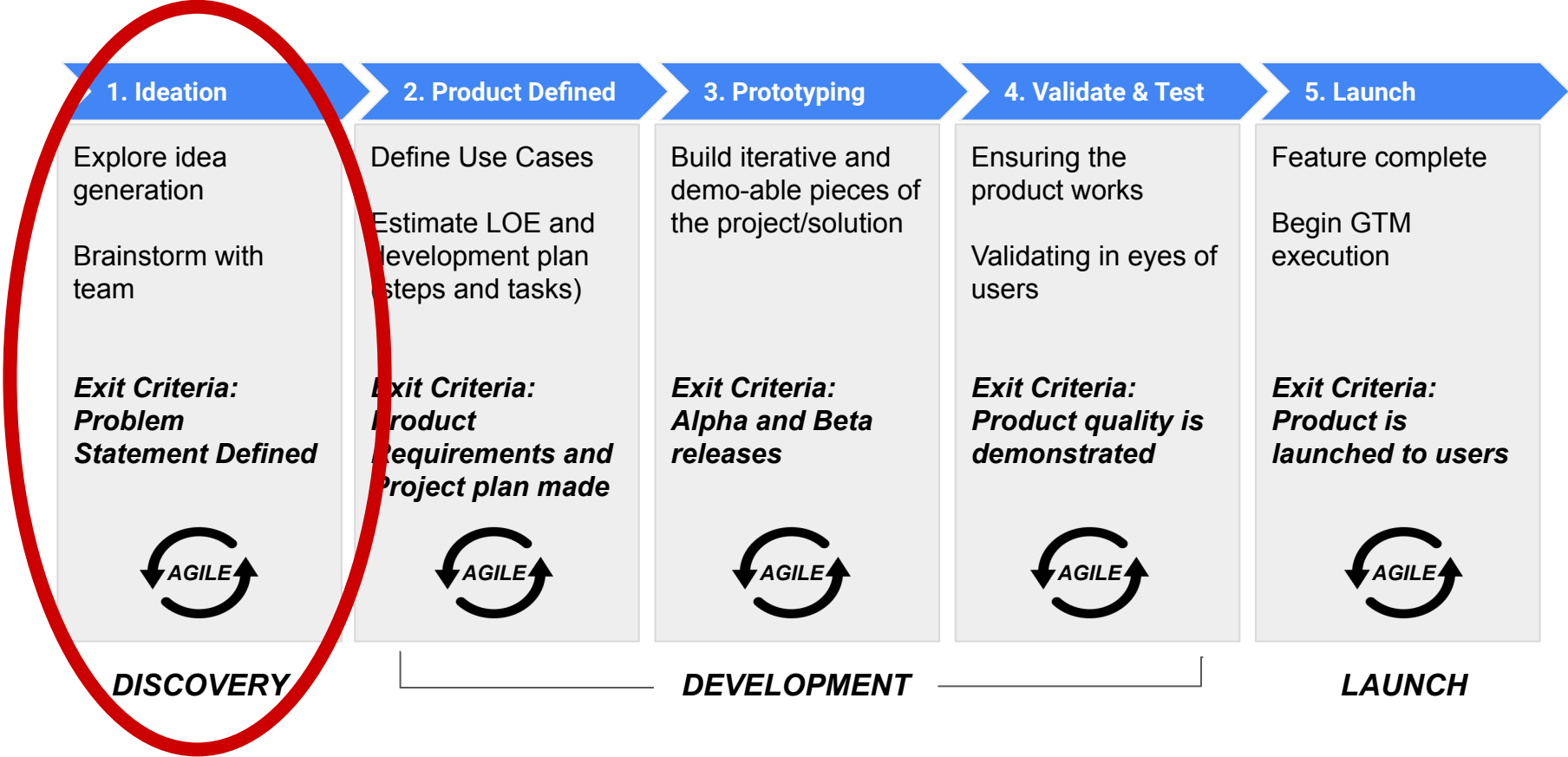
- Research and Discovery Phase
- Types of questions to ask
- What is Success
- Frameworks, Considerations
- Research Methodologies and Tooling
- Working with Clients / Customers
- Roles: UX Researcher, UX Designer, Data Scientist

Group Meeting (with Mentors) - 8pm

# Product Development Lifecycle



# Discovery Phase



# Key Questions to Begin Discovery

***What is the problem? What are our goals?***

***What does success look like?***

# Where to start?

**Top-down:** Leadership sets Objectives or “Top Projects” and team executes on solutions to those objectives/project ideas

OKRs: Objectives and Key Results (Introduced by Google in 1999)

KPIs: Key performance indicators

**Bottoms-up:** Product team pitches roadmaps to leadership and priorities are set based on those ideas

**Combo:** Leadership sets objectives and team co-produces strategy for execution

# Goals for Senior Design

From [Project Criteria](#), projects must include:

- Technical Challenges
- Algorithmic Components



# What is the problem?

Who are your users?

- “What do your users need?”
- “What are your users struggling with?”
- “How can you help your users?”

# What does Success look like?

Are there **company-wide goals** (OKRs) that this project needs to align with?

- Based on product stage: Introduction, Growth, Maturity, Decline
- Based on customer journey: Awareness, Consideration, Conversion, Loyalty, Advocacy

Does my **team** have goals we want to hit?

- Improve certain metric (KPI)
- Implement new framework
- Etc.

Is there anything I, **myself**, want to get out of this project?

- Learn something new

# GIST Framework

**GIST: Goals, Ideas, Steps, and Tasks**

**Goals: What do we want to achieve?**

**Ideas: How can we achieve these goals?**

*Steps: Later lecture*

*Tasks: Later lecture*

# *Team Workshop*

**What goals do you want to achieve?  
What problems do you want to solve?  
Who are your users?**

*In your groups, brainstorm these questions in a shared document, scratch paper, or even the room's whiteboards. Be sure to SAVE your notes!*

## *September Goal*

**Answer the question:  
What are you building and why?**

# Discovery and Research Methods

If we have a product, what can our product already tell us about the problems?

If we don't have a product, how can we learn more about the problems?

*Consideration when choosing research methods:*

- Market size, Customer population size
- Type of product
- Cost

*Research Methods:*

- Qualitative Tests
- Quantitative Research

# Discovery and Research Methods

Mix of live and asynchronous, in-product and mockups, anecdotal and aggregate

## *Qualitative Tests*

- Usability Tests
- User Interviews
- Conferences, Social Events
- Competitive Research

## *Quantitative Research*

- User surveys
- User billing, segmentation data
- Product data
- A/B Testings

# Working with Clients / Customers

## B2B

- Small customer pool
- Intimate convos
- Higher value per customer

## B2C

- Large customer pool
- More quantitative methods used
- Lower value per customer

## Research

- More explicit user groups

B2B2C, B2G, and more...



# Research Tools

## *Viewing the User Behavior*

- Live Interviews
- Recorded User Sessions
- Full Story
- Page Flows

## *Quantitative Research*

- Google Analytics
- MixPanel
- Amplitude
- Looker
- Product Forums

## *Team Workshop*

**Competitive Research: what problems are already being addressed? How do others solve those problems?**

# UX Researcher

## Who? Roles and Responsibilities?

- Uncovers user behaviors, needs and motivations to make products, services and websites more intuitive and enjoyable for users
- Uses qualitative and quantitative methods, they conduct comprehensive research
- Share the insights from research with the UX designers
- Works with Product Managers, Designers, and Engineers

# UX Designer

## **Who? Roles and Responsibilities?**

- Builds out UX ideas, prototypes, and designs based on the product's problem to be solved and success criteria
- Collaborates with Product team in order to enable engineers to build technical solution
- Works with Product Managers, Engineers, and other project/product team members

# Data Scientist / Analyst

## Who? Roles and Responsibilities?

- Find patterns and trends in datasets to uncover insights
- Create algorithms and data models to forecast outcomes
- Deploy data tools
- Share insights with org and team
- **Scientist:** Works to create data vision and strategy for organizations
- **Analyst:** Usually works with a team to help uncover findings based on team's needs