

CS 147 Project Expo

Design Thinking for User Experience Design, Prototyping & Evaluation

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Computer Science Department
Stanford University

Autumn 2024

December 6, 2024

Outline

Course overview	6:00-6:25
Team pitches	6:25-6:55
Posters/demos/judging	6:55-8:45
Awards	8:45-9:00



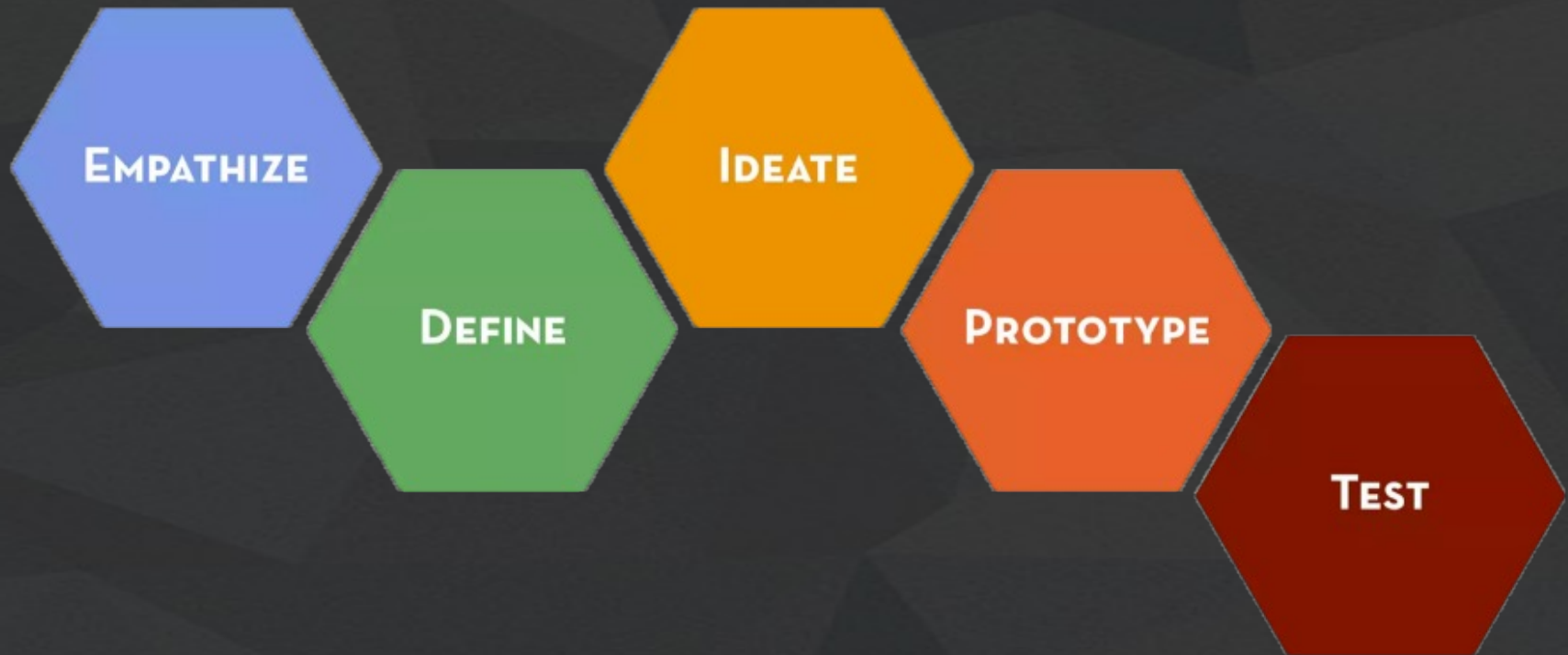
Balance

DESIGN

TECHNOLOGY



Design Thinking Process



Goal of CS 147

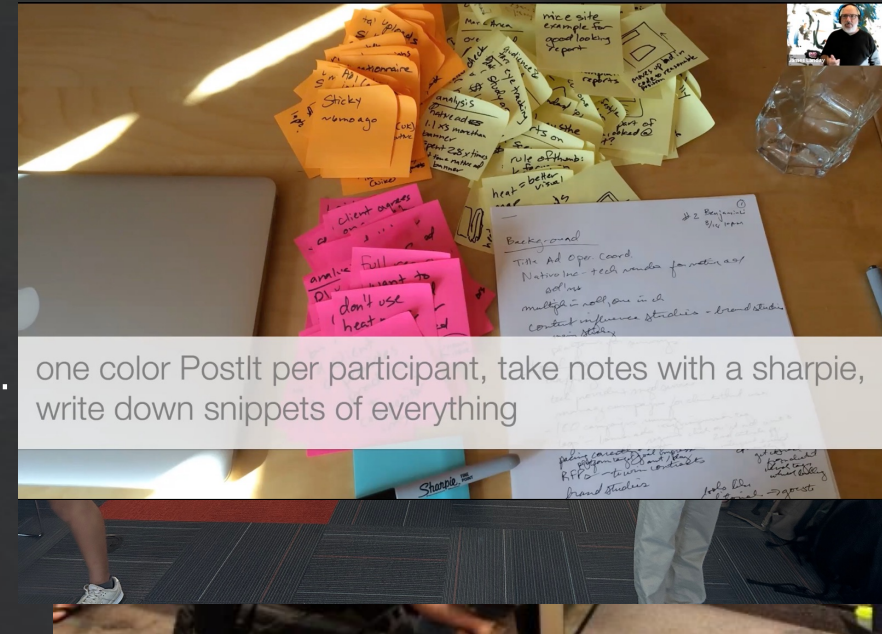
Learn to design, prototype, & evaluate UIs

- Tasks, activities & practices of prospective users
- Cognitive/perceptual constraints affecting design
- Techniques for brainstorming, ideation & prototyping
- Methods for evaluating UI designs
- Importance of iterative design for usability
- Technology used to prototype UIs

- *How to work together as a team*
- *Communicating results to a group*

Project Based Course

- Iterative design of a real UI
- Theme: mobile
- Quarter long projects
- Students
 - ~115 across CS, Symbolic Systems ...
- 29 Teams
 - 3-4 members
- 10 major group assignments
 - group work is ~60% of course grade
- Four presentations
 - every team member presents



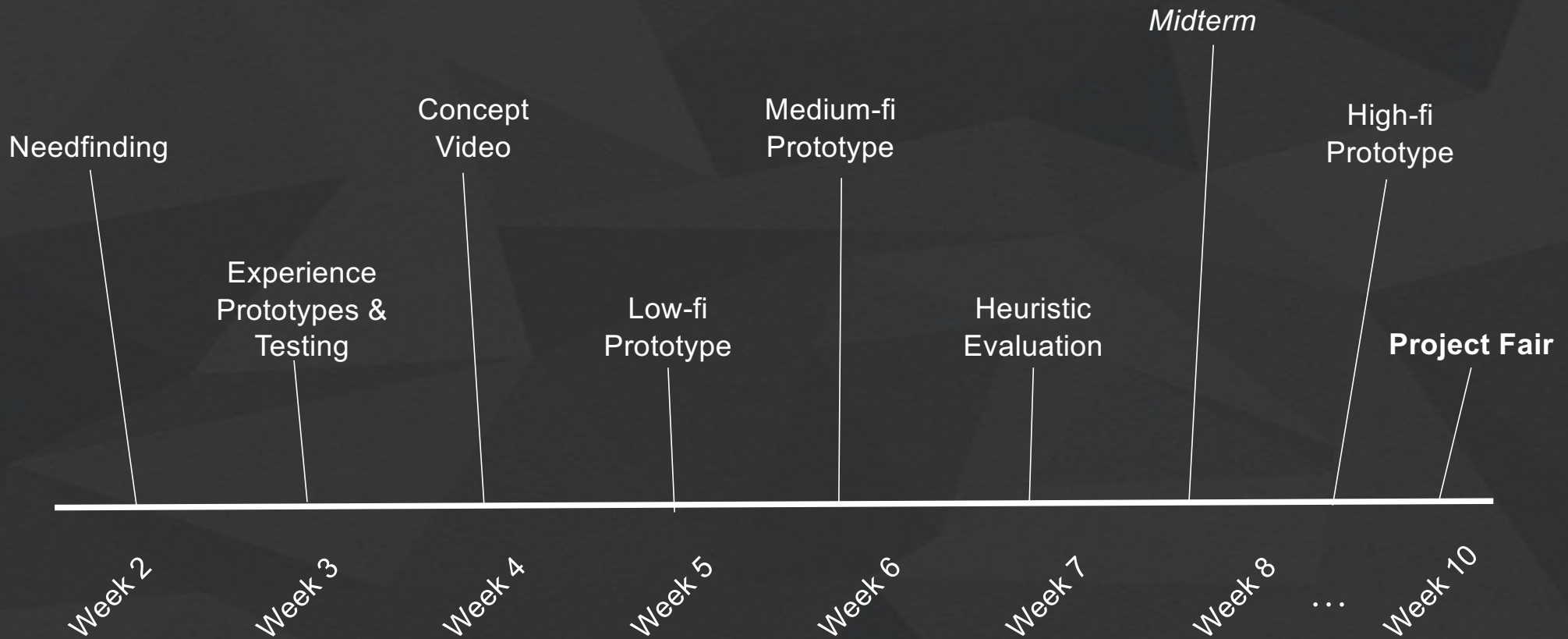
one color PostIt per participant, take notes with a sharpie, write down snippets of everything

Design Studios

Teams attend small weekly studio (8-16 students)
-critique/feedback in more intimate environment

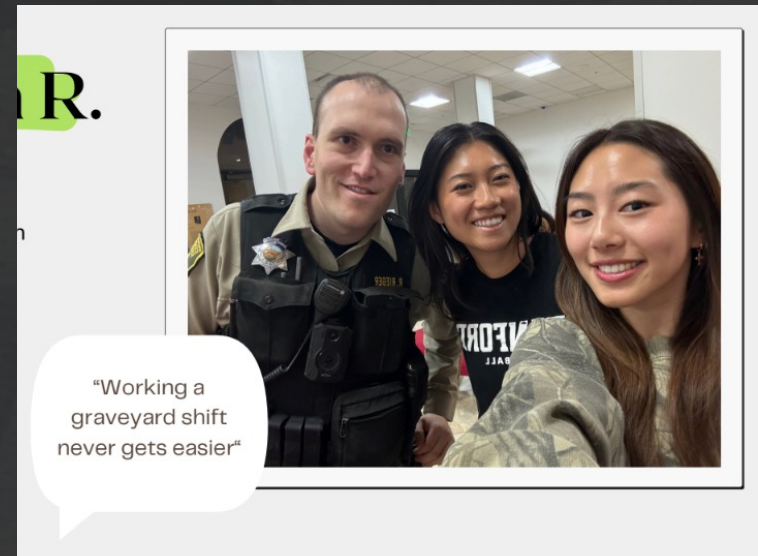


Project Process Timeline



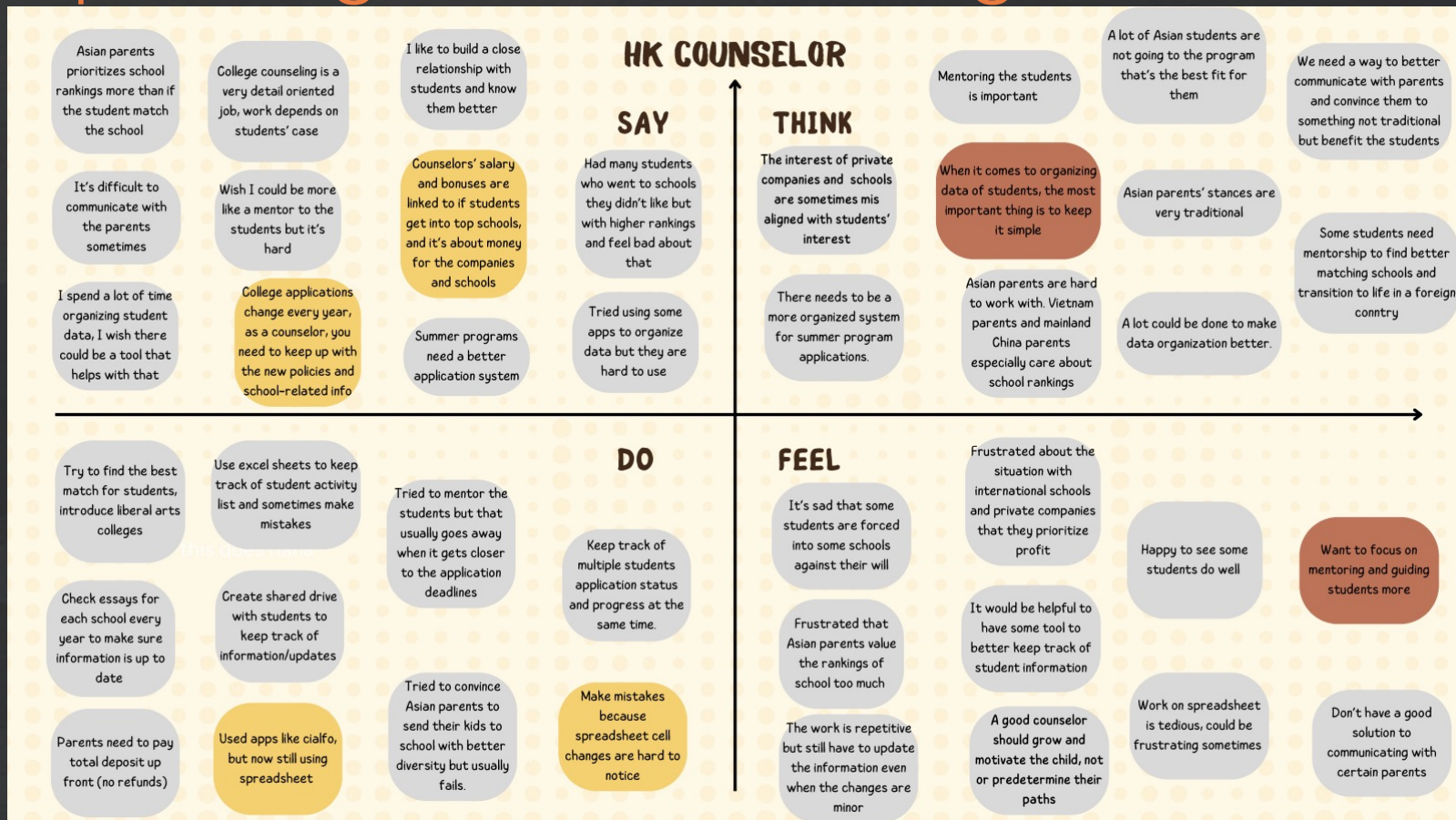
User-centered Design: Needfinding

- Observe existing practices for inspiration
- Make sure key questions answered
- Ethical questions in design w/ underserved communities



Lunar

Unpacking the Needfinding



Develop Point of Views (Person + Insight + Challenge) Brainstorm on How Might We Solve

WE WERE AMAZED TO REALIZE ...
(what did you learn that's new?)

THAT THANKS TO THE BOAT OWNER'S MENTORSHIP, TRUST, AND DEPENDENCE UP
THE FISHING LIFESTYLE AND CONNECTION TO NATURE, HE HAD TURNED HIS LIFE
AROUND FROM DRUG ADDICT W/OUT A JOB TO SOMEONE WITH SKILLS & CHILDREN

IT WOULD BE GAME-CHANGING TO ...
(frame up an inspired challenge for yourself
don't dictate the solution)

ALL OF US COULD TAKE A RISK TO SEE A SPARK IN OTHERS AND
NURTURE IT INTO A PURPOSEFUL TRANSFORMATION.

HMW bring
routine (and
discipline)
less

Experience Prototype to Test Assumptions



Pission



Experience Prototype to Test Assumptions

participants

1

Edith - Grandmother (88 yrs) with a lifetime of stories

A descendant of the mason who built Jordan Hall, she likes to share stories with her daughter.

2

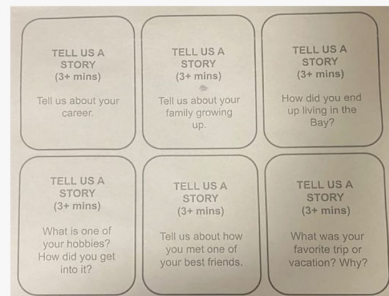
Vanessa - Writer (56 yrs) who enjoys fiction

Creating interesting narratives is part of her career and she is interested in the act of storytelling

3

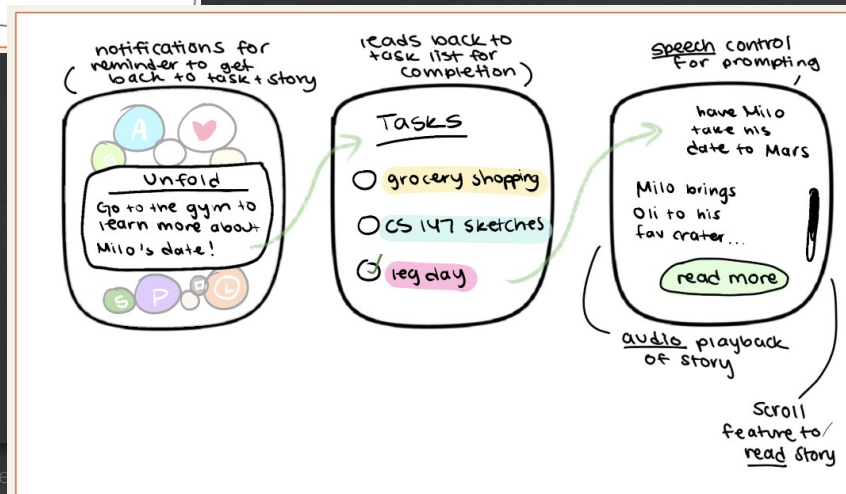
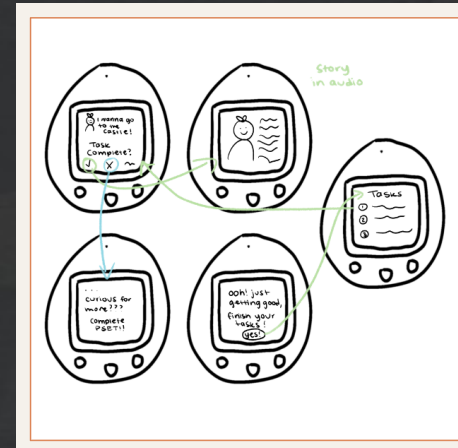
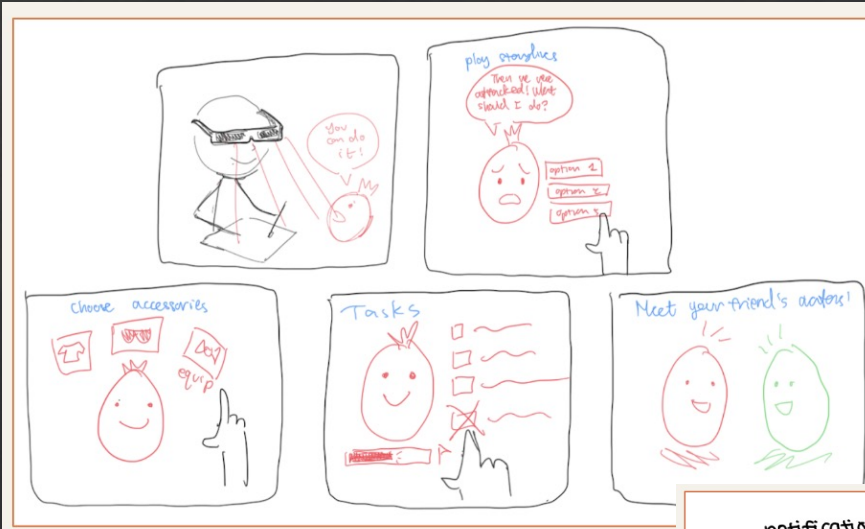
Corinne - Dancer and college student (22 yrs)

She is interested in learning about the stories of other people.



Lore

Sketching & Storyboarding



Unfold

Concept Videos: Planning Storyboards

Task #1: "Reading" an inherited memory Sound: A Party

17. Ham bites fruit
Ham looks down at fruit, smiles
18. A cake is placed in front of Ham. He smiles
Background: childhood kitchen
19. slowly opens eyes (open)
20. looks down at fruit, smiles
21. (pick)
22. (pick)
23. (pick)
Ham picks three more fruits
24. (fade to flashback)
25. (fade to present)
26. (fade to present)
27. Ham looks around farm
28. (fade to white)
29. (fade to white)

CPov)

24. (slides onto screen)
25. Kiss on cheek
26. Petting dogs
27. Ham looks around farm
28. (fade to white)
29. (fade to white)

Task #2: Showing a memory (ringing stops)

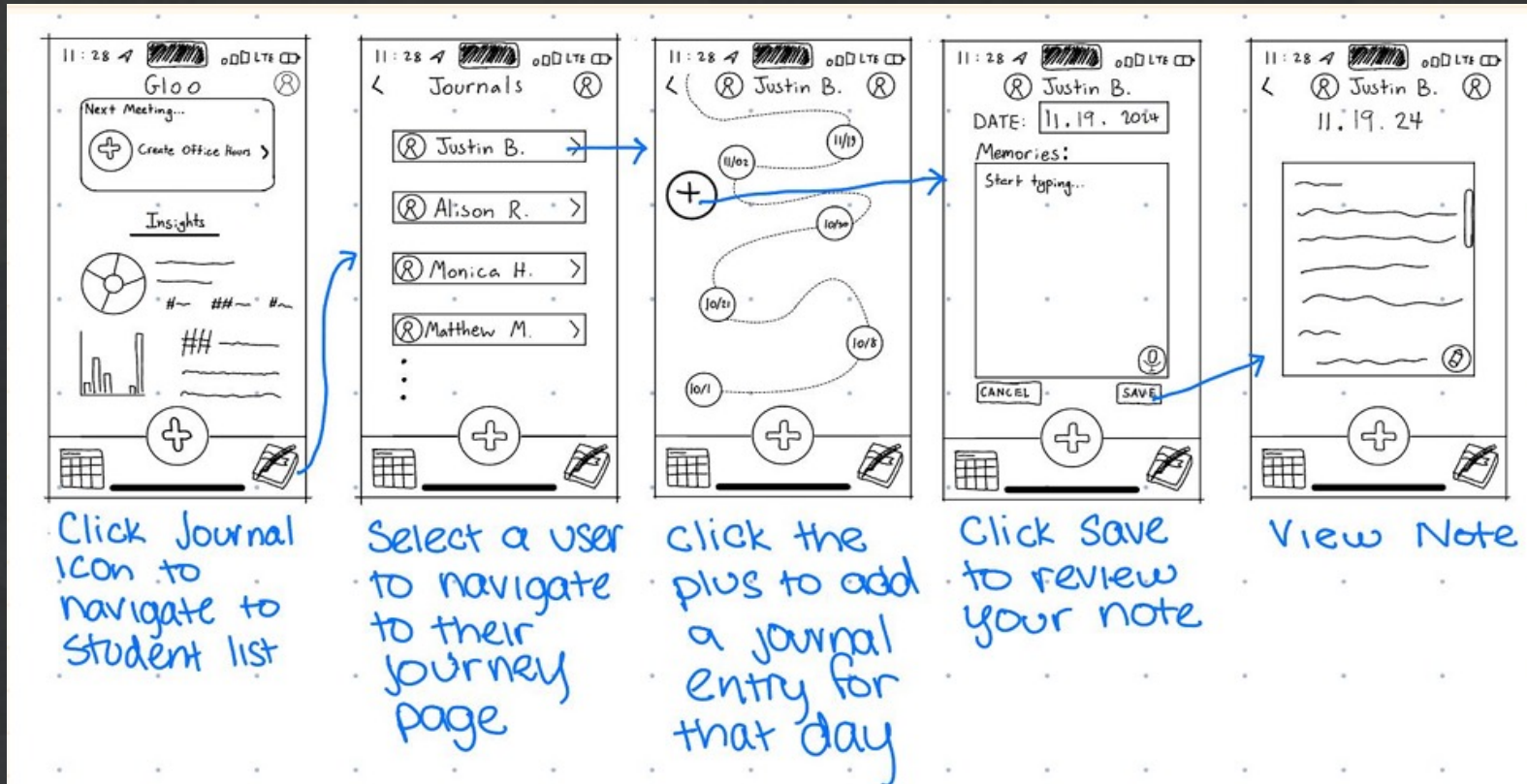
30. (fade to black)
31. (fade-in)
32. Sen, looking stressed
Set: Grey room
33. Ham places fruit in front of Sen. She picks it up and takes a bite.
34.

Concept Videos



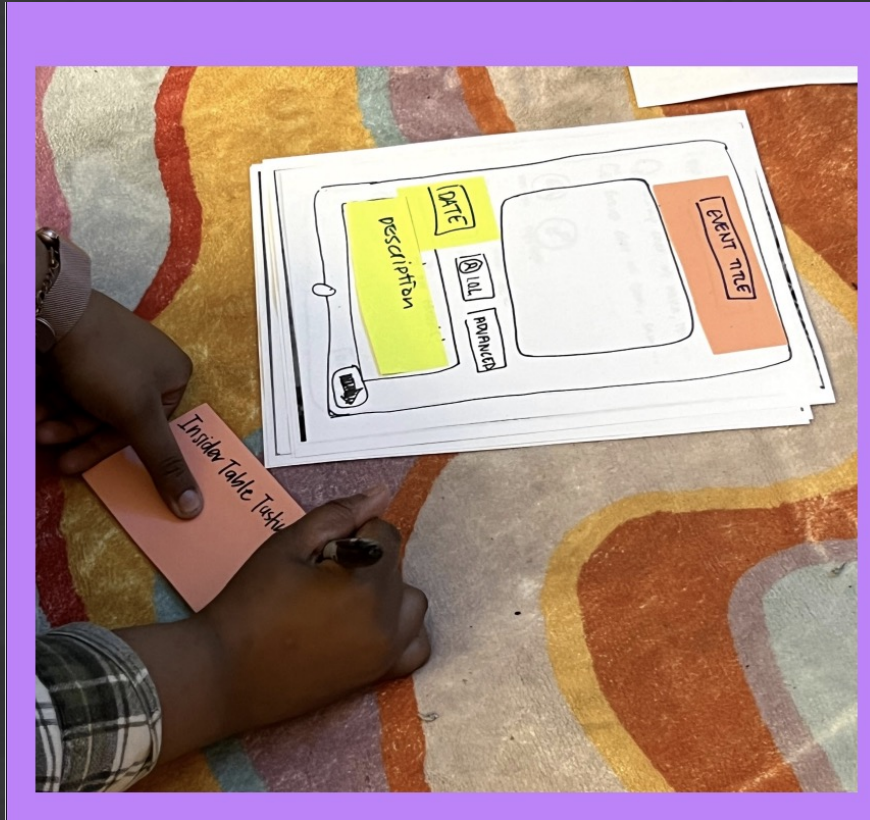
Mora

Low-fi Prototyping & Testing

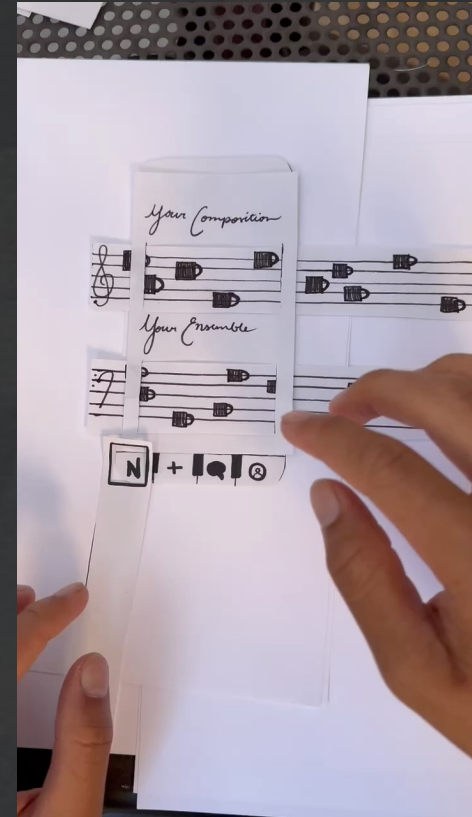


Gloo

Low-fi Prototyping & Testing



timelock



Noted

Interactive Prototypes

Medium Fidelity

Simple Task: Getting a Recommendation

1. Tap calendar icon or swipe right

2. Select upcoming event/trip

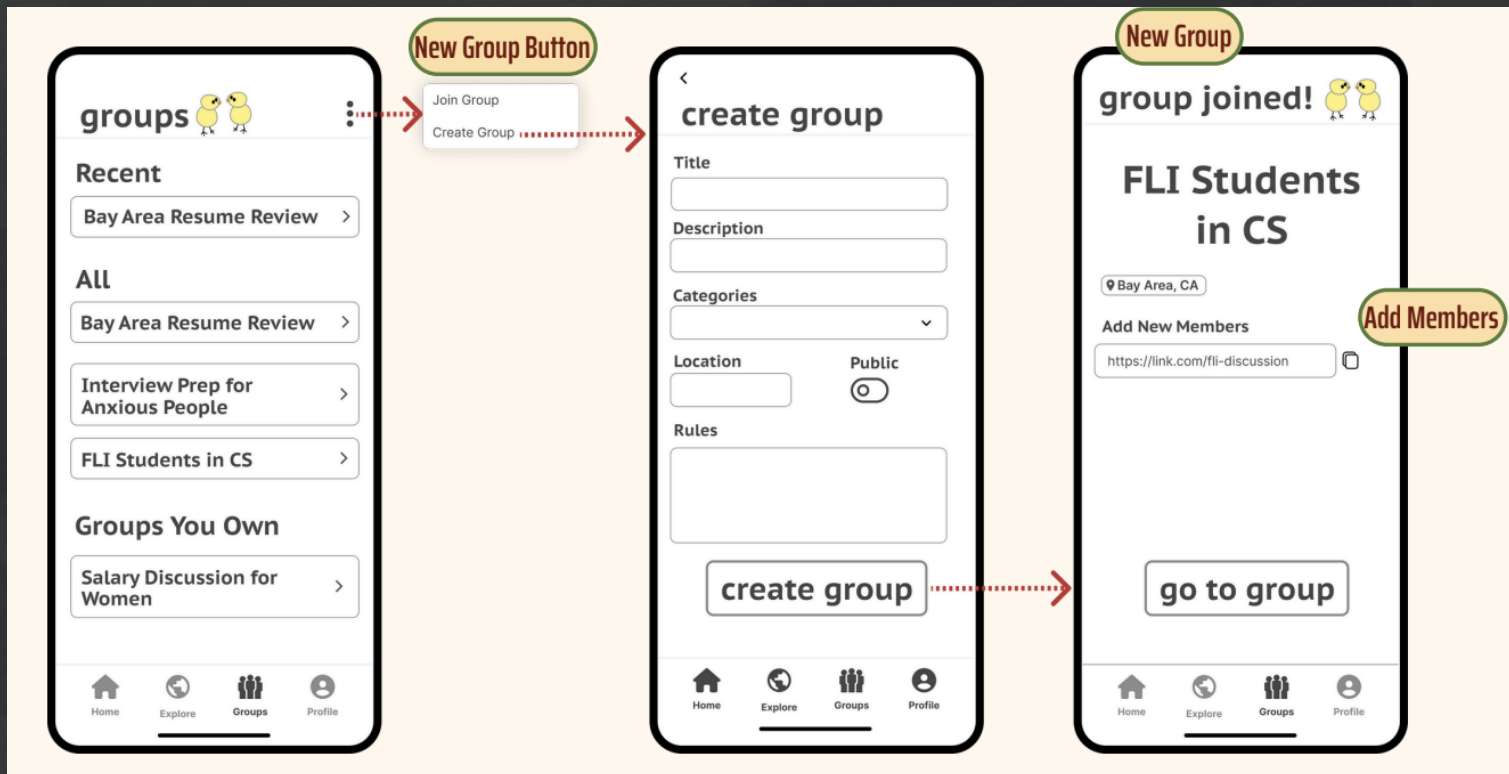
3. Pick from top three, or keep scrolling to find more

4. Enjoy! See the "Why?" and links to streaming services

RecoMedia

Interactive Prototypes

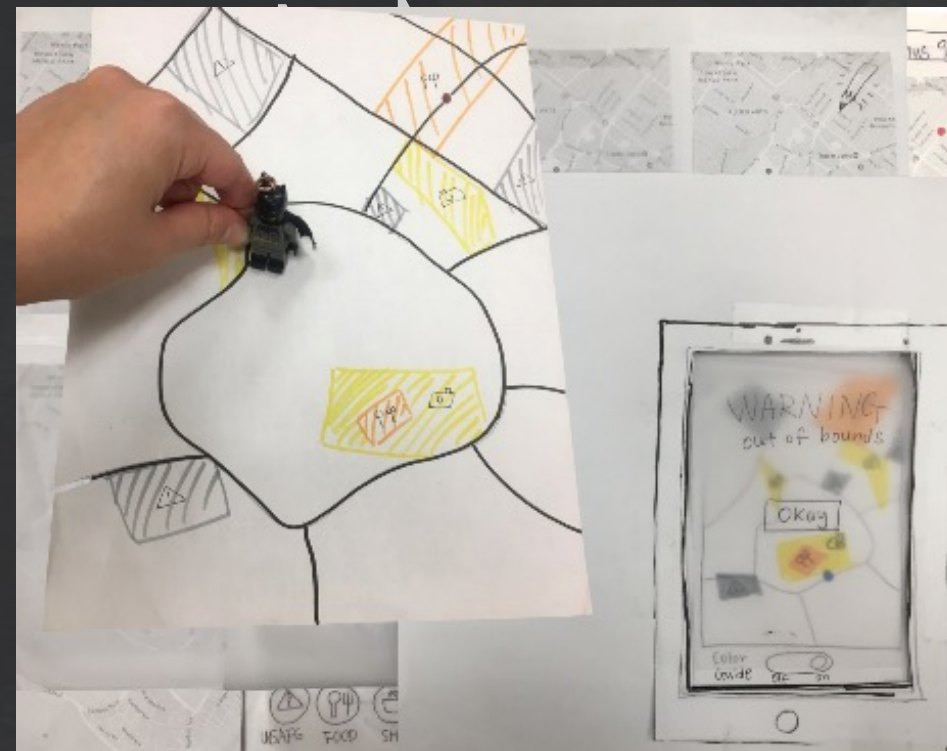
Medium Fidelity



hatcher

Evaluation

- Test with real customers (participants)
 - w/ interactive prototype
 - low-fi with paper “computer”
- Low-cost techniques
 - expert evaluation (Heuristic Evaluation)
 - online testing



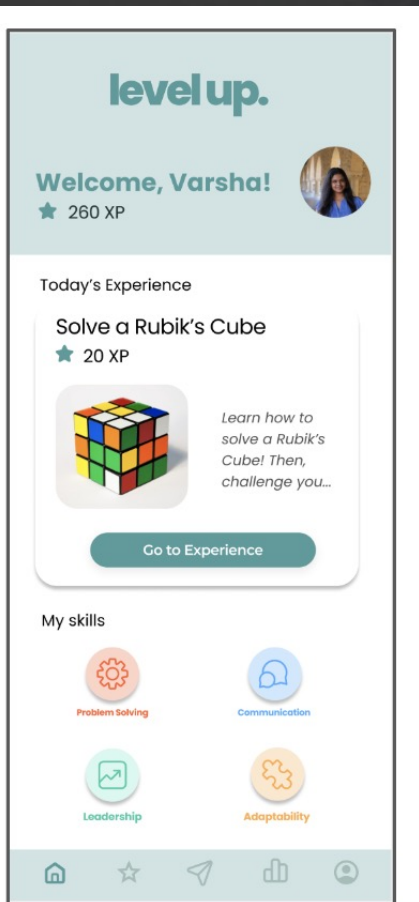
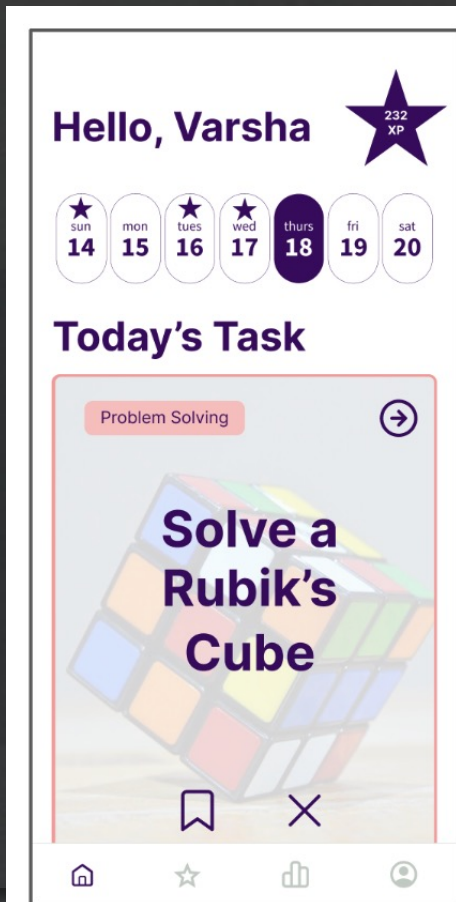
Wanderlust

Interactive Prototypes

Hi-Fidelity

LevelUp

LuckyDay

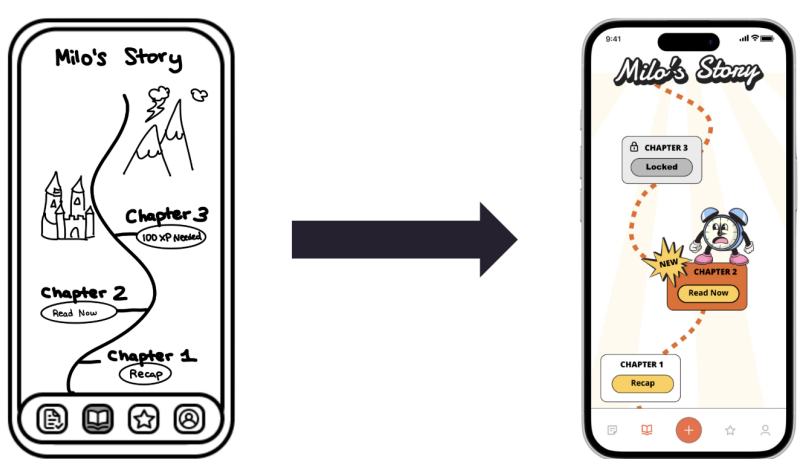


<http://cs147.stanford.edu>

- Project web sites w/ all materials

See What We Built! **Unfold**
Immerse yourself in our narrative-driven task-management app!

CONCEPT VIDEO PROTOTYPES TASK SCREENS



From Low-Fi to Medium-Fi

This is how we transitioned from the lo-fi prototype to the medium-fi prototype of the levels scene! We incorporated a retro theming to evoke storytelling and nostalgia in the user and set our app visually apart from others.

<http://cs147.stanford.edu>

- Project web sites w/ all materials
- Lecture topics, slides, & video
- Homework assignments

The Projects

- 16 Judges will be picking the best projects (announced 8:45-9 PM)
- Students will have a say by voting for *The Students' Choice Award*

<https://tinyurl.com/cs147-au24-best-pitch>



Thanks! Get Involved!

- Mentor teams next year (mid-quarter feedback)
- Hire students and interns
- Support this project fair financially & HCI+Design research at Stanford

The Judges

- Siamak (Ash) Ashrafi
- Milton Chen
- Jane E
- Melissa Guyre
- Scott Jenson
- Matthew Jörke
- Kai Lukoff
- Joanne Ma
- Edmund Macaluso
- Nirav Mehta
- Joy Mountford
- Lizi Ottens
- Michelle Park
- Shriti Raj
- Jack Russo
- Leigh Soutter
- Yicheng “YC” Sun
- Sonia Tiwari
- Kelly Truong
- Tom Watson

THANK YOU!

FLORENCE
VENTURE PARTNERS



Computerlaw
Group
LLP

Entrepreneur Law Group PLLC

THANK YOU!

FOUNDATION FOR
CREATIVITY
IN DISPUTE RESOLUTION

The Projects

The Students' Choice Award

<https://tinyurl.com/cs147-au24-best-pitch>



We are checking your attendance based on this and on Bingo!

The Judges

- Siamak (Ash) Ashrafi
- Milton Chen
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THANK YOU!

FLORENCE
VENTURE PARTNERS



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Group
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THANK YOU!

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CREATIVITY
IN DISPUTE RESOLUTION

AUTUMN 2024
CS 147 – dt+UX
AWARDS

Students' Choice / Best Pitch

SpeakEasy

Unfold

PISSION

Best Poster

SpeakEasy

Superbloom

Unfold

Greatest Societal Impact

EKG

LuckyDay

Lunar

Greatest Personal Impact

Lore/Lockin

LockedIn

Superbloom

Most Novel Product

Superbloom

Mora

ConcertBuds

Best Website

Gloo

RecoMedia

Planet

Best Concept (3)

Atlas

Mora

FoodWise

Best Demo (3)

Universe

Pission

Unfold

Best Visual Design (3)

Superbloom

Lunar

Unfold

Bingo Raffle Winner

Matthew Mattei

Steve Dou

Evan Hsu

Best Overall Project

Unfold

Foodwise

Mora

Best Overall Teaching Team



December 6, 2024

dt+UX: Design Thinking for User Experience Design, Prototyping & Evaluation

50

Best Overall Teaching Team

