Class 2: App Prototyping Methods

Agenda

1. What's an "app"?
2. Prototyping Methods Overview
3. Low-Fidelity Prototyping
4. High-Fidelity Prototyping

Discussion: What is an App?

Form groups of 2-4.

Discuss with your peers what an app is.

Prepare a definition to share with the class. (I will call on each group to share.)

Activity: Design an App

Client: VibesApp is a startup that has contracted with your team to design a new mobile app.

Goal: Design a mobile app that lights up a room with moving colors based on the *vibes* that the user wants to create in their environment.

1. Brainstorm a design for this app (or two) on the handout.
2. With a group of 2-4, sketch a design for an app on the board.
3. Evaluate the usability of your app. (Does it set the vibes for a room?)

Definition: App

App, short for application, is an **interactive program** for **computational devices** (i.e. phones) typically designed to **support users with tasks**.

Discussion: Is a website an app? It depends...

App's are Expensive!

- ~$100,000 to $250,000
- ~3 months to 12 months
- Significant expertise required
- 2 major mobile platforms (iOS and Android)
- 2 major laptop/desktop platforms (Windows and macOS)

Discussion: Should We Build Your App?

- UX designer/engineer
- iOS developer/engineer
- Android developer/engineer
- Backend developer/engineer
- QA tester/engineer
- Project manager

We should know whether the app is worth building **before** we invest!

Prototyping

> A user interface prototype is a hypothesis — a candidate design solution that you consider for a specific design problem.

- NN/Group

Prototyping Methods

- Low-Fidelity (Sketches, Wireframes, Paper Prototypes)
- Medium-Fidelity (Digital Wireframes, Clickable Prototypes)
- High-Fidelity (Visual Designs, Functional Prototypes)

Low-Fidelity vs. High-Fidelity

- Low-Fidelity (e.g. Paper Prototype)
  - lower cost
  - less interactive (often static)
- Medium-Fidelity (e.g. Figma)
  - moderate cost
  - somewhat interactive
- High-Fidelity (e.g. Interactive Prototype)
  - higher cost
  - more interactive (often dynamic)

Low-Fidelity Prototyping: Paper Prototype

https://www.youtube.com/watch?v=OIbdIXLunt4

Discussion: Should we build a paper-prototype of your app?

Medium-Fidelity Prototyping: Figma

Figma is a web-based design tool for creating digital wireframes and clickable prototypes.

- Limited interactivity
- Content is static (no dynamic data)

Discussion: Should we build a Figma of your app?

High-Fidelity Prototyping: Interactive Prototype

> A high-fidelity (sometimes referred as high-fi or hi-fi) prototype is a computer-based interactive representation of the product in its closest resemblance to the final design in terms of details and functionality.

- https://blog.prototypr.io/high-fidelity-prototyping-what-when-why-and-how-f5bbde6a7fd4

Discussion: Should we build a Figma of your app?

High-Fidelity Prototyping: How?

- Adobe XD
- Figma (with plugins)
- InVision
- Proto.io
- **Web-based (HTML/CSS/JS)**

Vue.js

> Vue.js is an approachable, performant and versatile framework for building web user interfaces.

- https://vuejs.org/

Discussion: How to Learn Vue.js?

Learning Objective

Learn how to independently approach problems and technologies that are new to you.

Strategies for Learning New Technologies

- Tutorials
- Examples
- Documentation
- Ask ChatGPT
- **Exploration**
- **Experimentation**

Activity: Explore Vue.js

1. Open your Homework 1 repository as a Codespace.
2. With a peer (2-4) explore the code and discuss how Vue.js works.
    - How does “You did it!” or *your name* show on the screen?
    - Can you add another line of text below it?
3. Can you start to modify the code to implement your app design?

Summary

- Apps are interactive programs for computational devices designed to support users with tasks.
- Apps are expensive (cost + time + expertise).
- Prototyping is a way to evaluate app designs before building them.
- Low-fidelity prototypes are quick and cheap.
- High-fidelity prototypes are more detailed and interactive.
- Vue.js is a web framework for building interactive user interfaces.