

Today's Agenda

- Prototyping
- Discussion on the Design Alternatives Presentation
- Group work on Design Alternatives Presentation

Prototyping

Rapid prototyping, sketches, storyboards, mock-ups, etc
(adopted partially from Dr. Bruce Walker)

PROTOTYPE EXAMPLES/TYPES

Prototyping

- Tradeoffs of simplicity, manageability
 - Veracity
 - Interactiveness
 - Up-front costs vs. down the road costs
-
- Key: Don't let the prototyping environment drive or constrain your creativity!!

Prototyping Tools

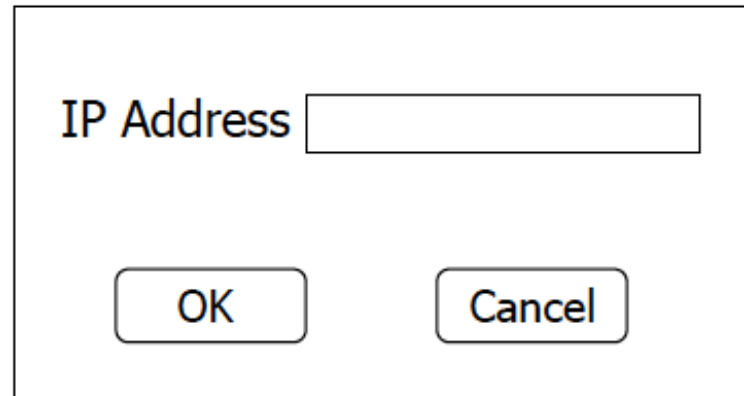
Lots of prototyping software out there

- Many free
- Many more with free trial (just be sure to save your prototype so you can access after trial)

Prototyping Tools (draw/paint)

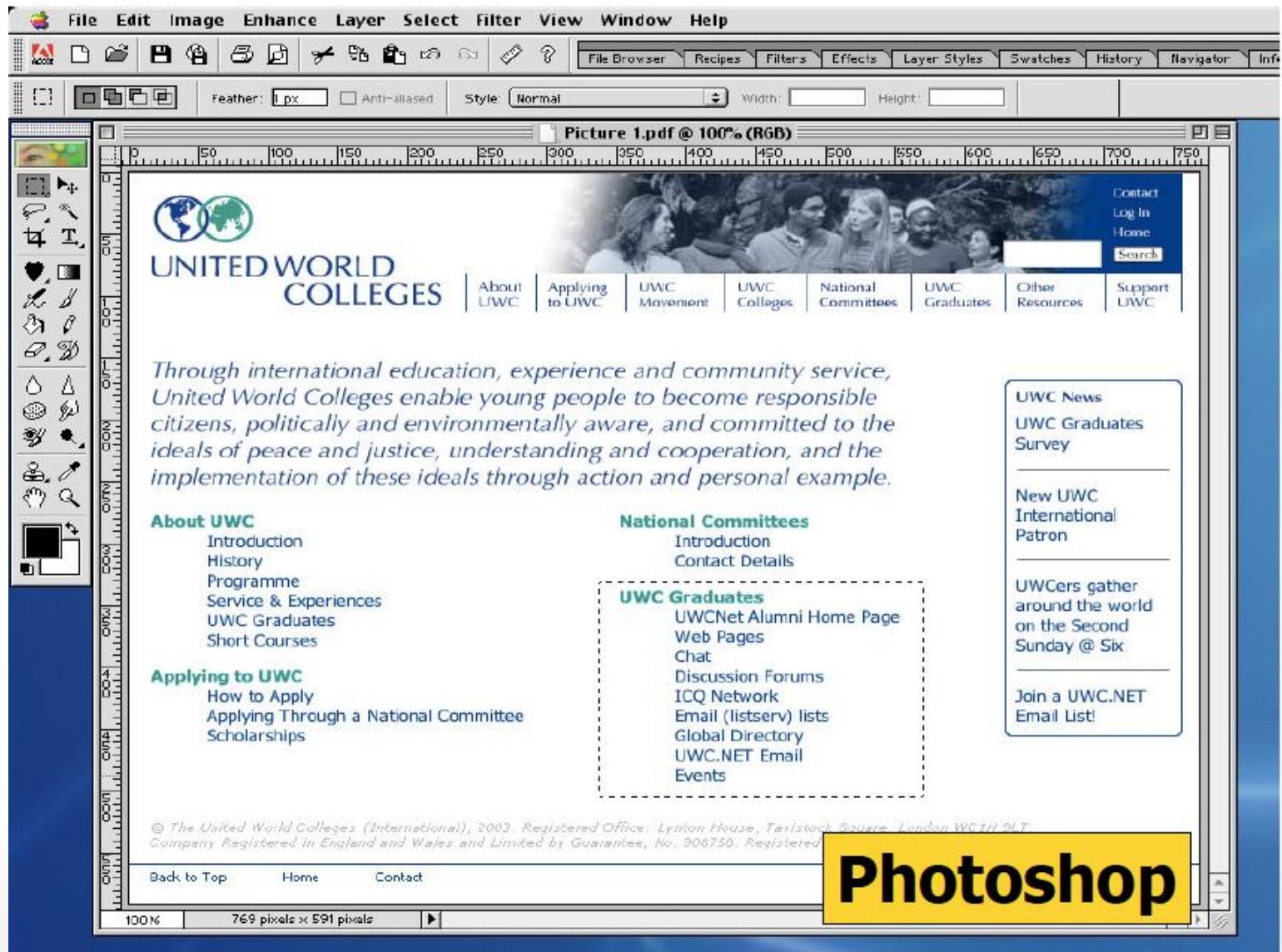
1 Draw/Paint programs

- ❖ Draw each screen, good for look



A hand-drawn mockup of a dialog box. It features a rectangular border. Inside, the text "IP Address" is positioned to the left of a rectangular input field. Below the input field, there are two rounded rectangular buttons: "OK" on the left and "Cancel" on the right.

Prototyping Tools (Photoshop)



Prototyping Tools (Scripted Simulations)

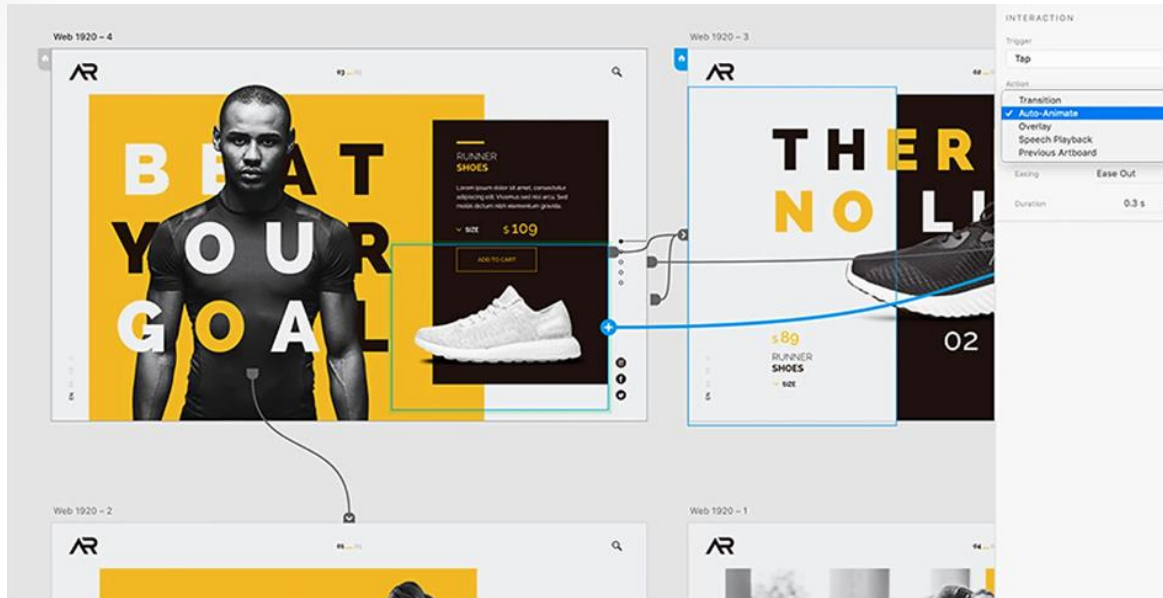
Scripted simulations/slide shows

- ❖ Put storyboard-like views down with (animated) transitions between them
- ❖ Can give user very specific script to follow
- ❖ Often called *chauffeured prototyping*

Examples: PowerPoint,
AdobeXD



Prototyping Tools (Adobe XD)



- ❖ Static designs/ wireframes to interactive prototypes
- ❖ Motion and animations
- ❖ Prototype on Mac or Windows, iOS or Android
- ❖ Free trial
- ❖ In 2024, it is announced Adobe XD will be phased out

<https://www.adobe.com/products/xd/prototyping-tool.html>

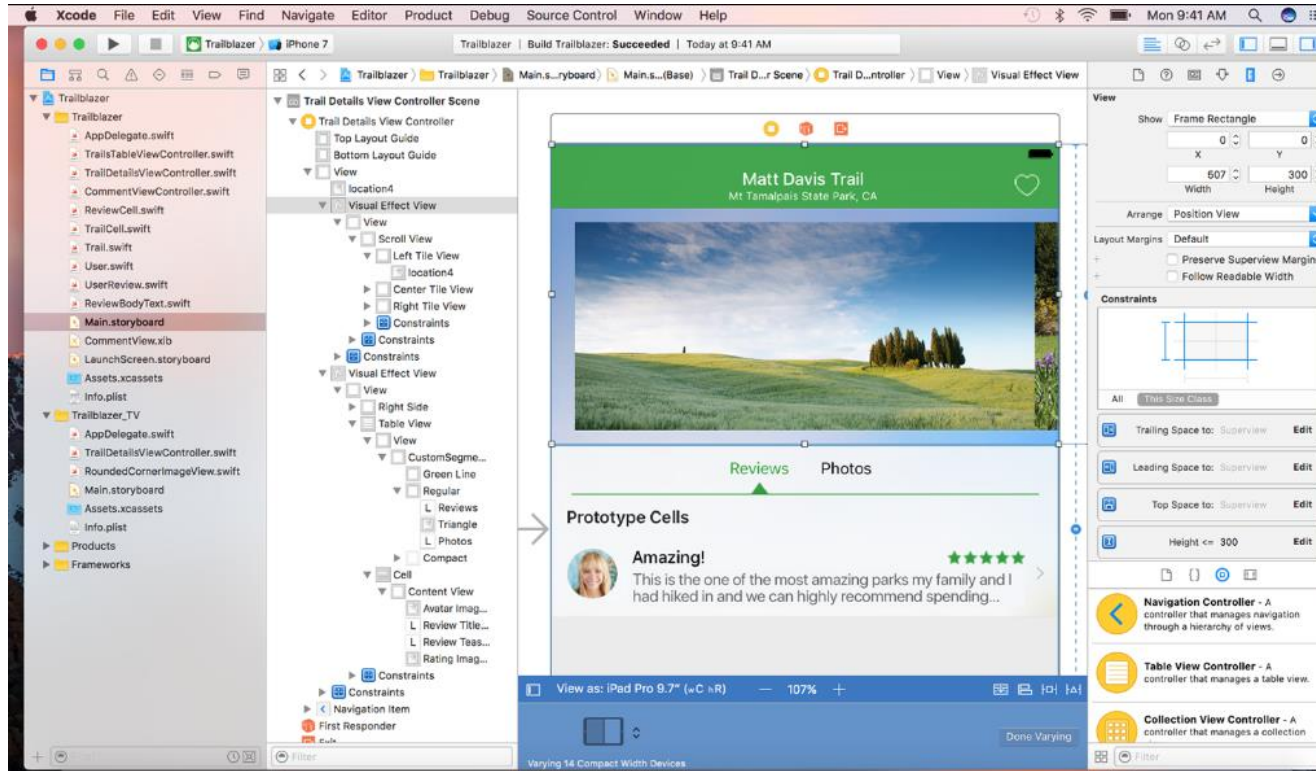
Prototyping Tools (Interface Builders)

Interface Builders

- ❖ Tools for laying out windows, controls, etc. of interface
 - Have build and test modes that are good for exhibiting look and feel
 - Generate code to which back-end functionality can be added through programming

Examples: Interface Builder (Xcode) by Apple and Delphi

Xcode

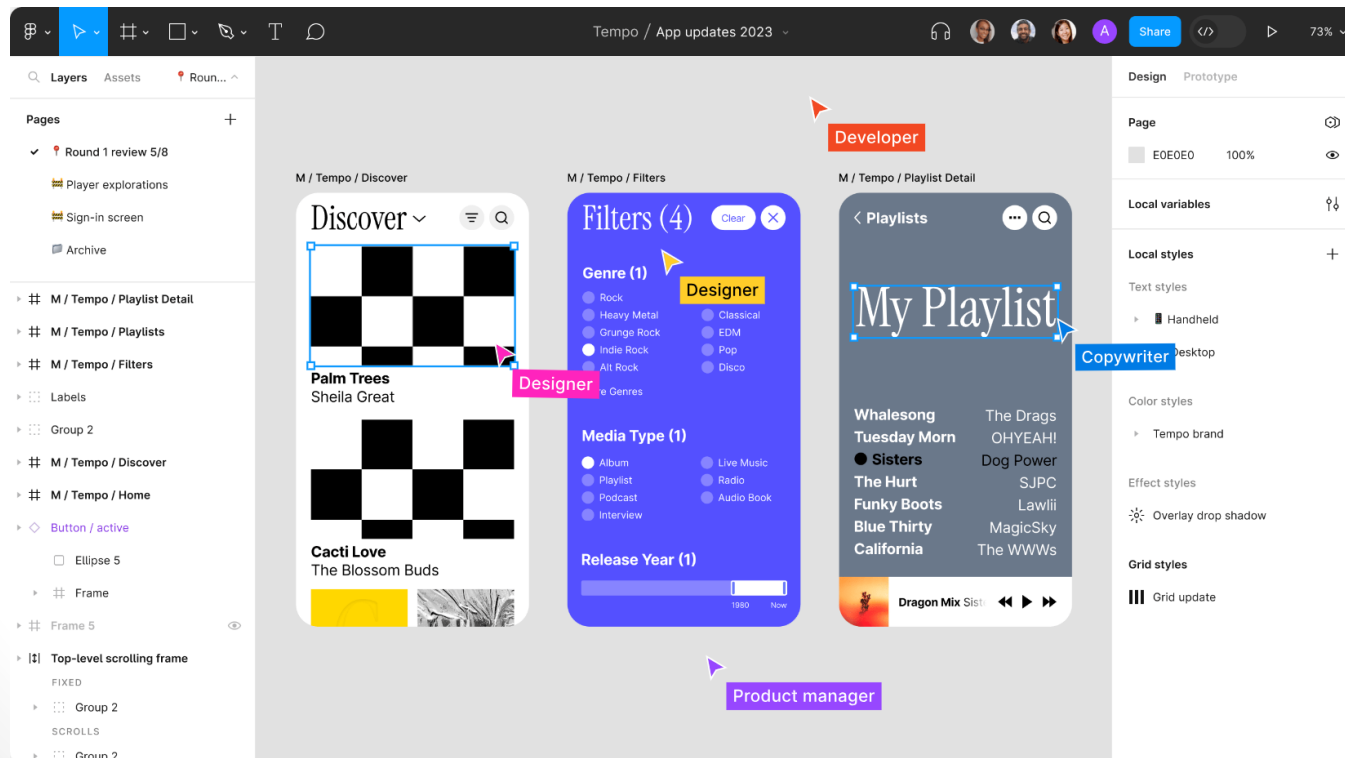


- Create apps for Mac, iPhone, iPad, Apple Watch, and Apple TV
- No coding
- Drag and drop
- Create connection between interface and code in macOS and iOS
- Free download

<https://developer.apple.com/xcode/interface-builder/>

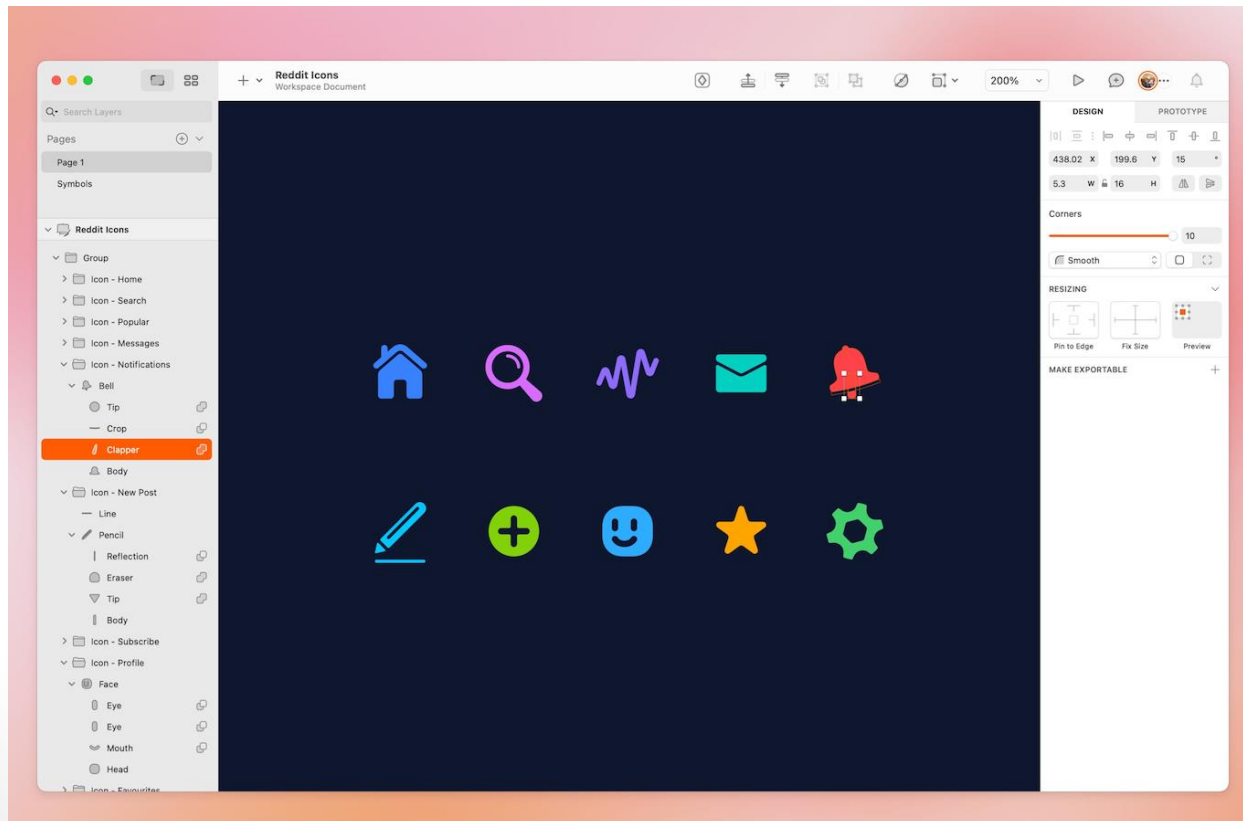
Other Prototyping Tools: Figma

- Cloud-based enabling teamwork
- All-in-one
- Realistic prototypes
- Dev mode
- Starter free



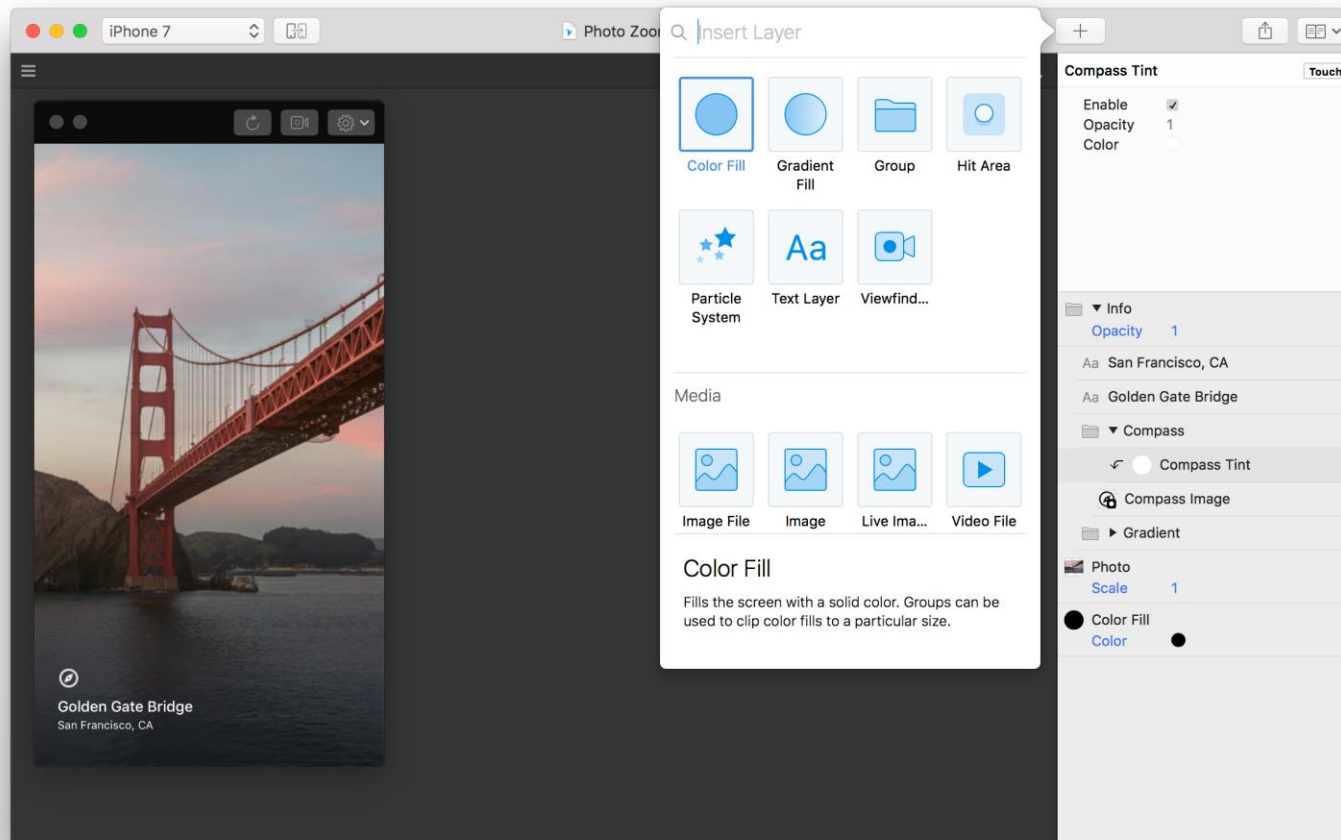
Other Prototyping Tools: Sketch

- A Mac app for designers
- A web app for sharing, testing, and collecting feedback
- Free trial



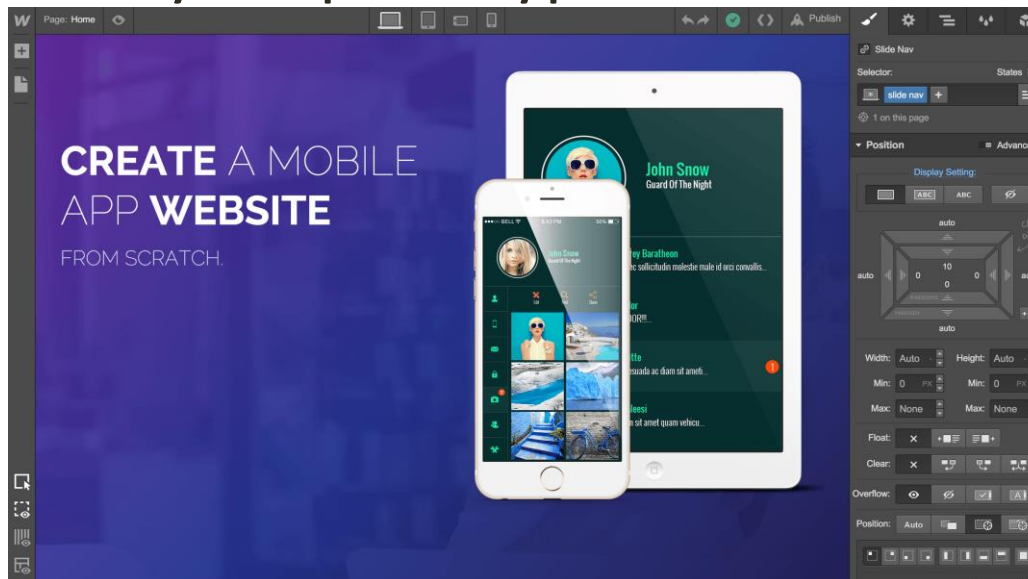
Other prototyping tools: Origami Studio

- First developed by Facebook <https://origami.design/>
- Design, animate, and prototype
- It is FREE



Other prototyping tools: Webflow

- Free trial <https://webflow.com/>
- Webflow's content management system is completely visual,
 - Create sites without writing code
- Site templates and web components dragged and dropped into your prototype



Wireframe builder

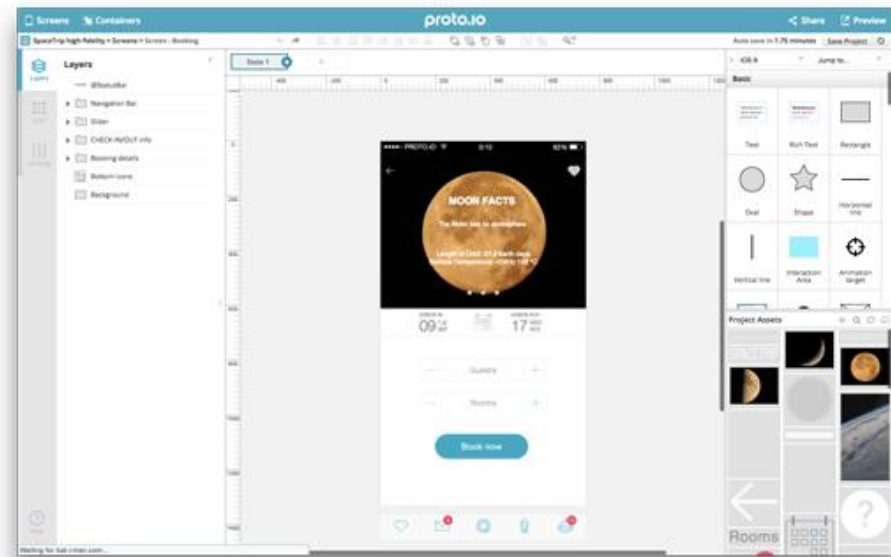
The collage features several distinct UI design elements:

- Top Left:** A web page header with a search bar and a table with columns: Name, A, Ag, Nickname, and Employee. The table contains three rows of data.
- Top Center:** A file explorer window with a menu (File, Edit, View, Help) and a list of files (Open, Open Recent, Option One, Option Two, Show Something, Exit).
- Top Right:** A map showing a green highlighted area and a yellow line. Below the map is a person icon and a list of items (One, Two, Three, Four).
- Middle Left:** A sidebar with a search bar and a list of items (One, Two, Three, Four, Five, Six, Seven, Eight, Nine, Ten, Eleven, Twelve, Thirteen, Fourteen, Fifteen, Sixteen, Seventeen, Eighteen, Nineteen, Twenty).
- Middle Center:** A list of items (One, Two, Three, Four, Five, Six, Seven, Eight, Nine, Ten, Eleven, Twelve, Thirteen, Fourteen, Fifteen, Sixteen, Seventeen, Eighteen, Nineteen, Twenty) with a search bar and a list of items (One, Two, Three, Four, Five, Six, Seven, Eight, Nine, Ten, Eleven, Twelve, Thirteen, Fourteen, Fifteen, Sixteen, Seventeen, Eighteen, Nineteen, Twenty).
- Middle Right:** A person icon with a list of items (One, Two, Three, Four, Five, Six, Seven, Eight, Nine, Ten, Eleven, Twelve, Thirteen, Fourteen, Fifteen, Sixteen, Seventeen, Eighteen, Nineteen, Twenty) and a list of items (One, Two, Three, Four, Five, Six, Seven, Eight, Nine, Ten, Eleven, Twelve, Thirteen, Fourteen, Fifteen, Sixteen, Seventeen, Eighteen, Nineteen, Twenty).
- Bottom Left:** A calendar showing the month of January with a list of items (One, Two, Three, Four, Five, Six, Seven, Eight, Nine, Ten, Eleven, Twelve, Thirteen, Fourteen, Fifteen, Sixteen, Seventeen, Eighteen, Nineteen, Twenty).
- Bottom Center:** A keyboard layout with a list of items (One, Two, Three, Four, Five, Six, Seven, Eight, Nine, Ten, Eleven, Twelve, Thirteen, Fourteen, Fifteen, Sixteen, Seventeen, Eighteen, Nineteen, Twenty).
- Bottom Right:** A clock showing the time 10:02 AM and a smartphone interface with a list of items (One, Two, Three, Four, Five, Six, Seven, Eight, Nine, Ten, Eleven, Twelve, Thirteen, Fourteen, Fifteen, Sixteen, Seventeen, Eighteen, Nineteen, Twenty).

<https://balsamiq.com/>

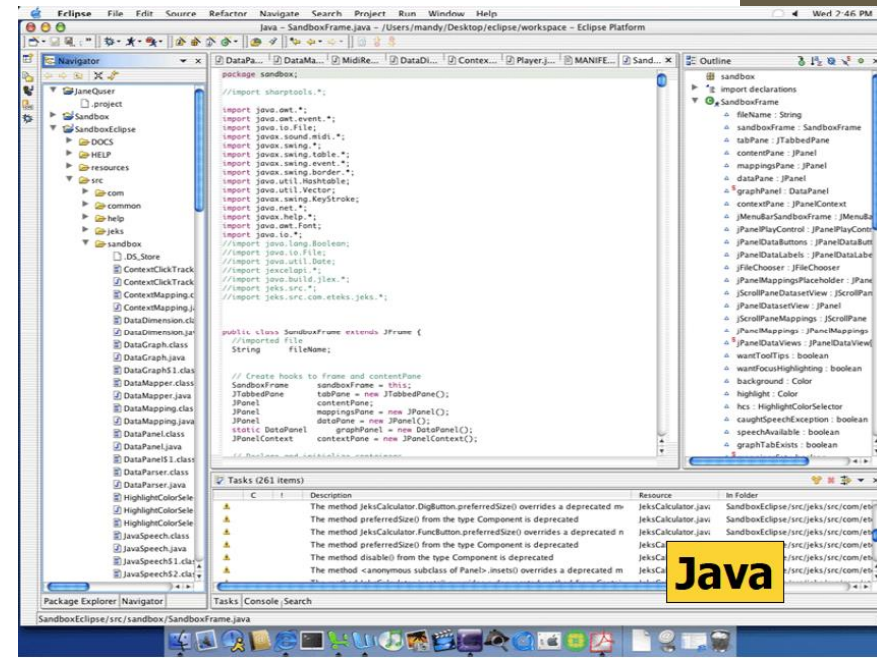
Other prototyping tools: Proto.io

- [Proto.io - Prototyping for all](https://proto.io)
- Free trial
- Ready-made templates for websites and apps
- Entire app runs on the web, so run on any platform
- Share prototype with URL



Prototyping Tools (True Programming)

- Less useful for rapid prototyping, but can save re-coding time down the road
- More constrained in look and feel
- Constrained to traditional interaction styles and methods
 - ❖ Hard to think outside the box...



Java

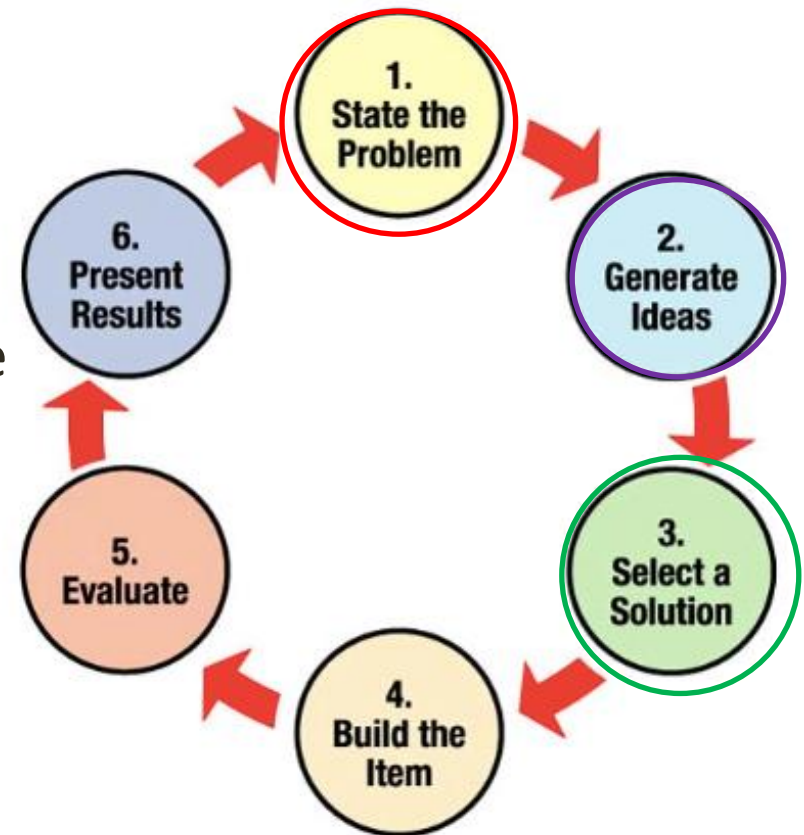
Design Alternatives Presentation

- Group 1-2, Oct. 1 (Tuesday)
- Group 3-4, Oct. 3 (Thursday)

Please submit your slides to Blackboard by
11:59pm EST, Thursday, Oct. 3, 2024

Design Alternatives Presentation

- Define your topic
 - What is the problem
- Develop your concept
 - Formulate system goals/purpose
 - Identify user requirements
 - What are the major functions
 - Identify environment
- Present your design ideas
 - Wireframe is preferred



Narrow down your solution and acquire feedback from audience

Design Alternatives Presentation

15 minutes presentation

You also need to include

- An updated project management plan including
 - The role of team members
 - A breakdown of the tasks
 - Timeline
- **A short list of questions for the audience**
- Refer to HCI goals to formulate the questions

10 minutes Q&A

Please make sure to address the comments in “Topic Definition and Problem Understanding”

Design Alternatives Presentation

All team members should participate your group presentation

Preferred way of presentation:

- One member displays/controls the slides
- All members contribute to the presentation

Extra Credit – Group Assignment

- A written report summarizing the outcome from the design alternative presentations
 - What are the major concerns from the audience?
 - What are the feedbacks from the audience? You can use some statistics to summarize the feedbacks.
 - How would you propose solution to address the concerns?
 - How would you incorporate the feedback to improve your design?
- **Up to 2 points towards your final grade**
 - calculated based on this written report and the peer evaluation
- Due: 11:59pm, Sunday, Oct. 6, in Blackboard

Time to work in your groups!

So far, you have defined your topic for the project

It is time to work on designs

Before you start...

Figure out who is taking notes.

1. Discuss on design options
2. Discuss on prototyping tools
3. Take notes during discussion