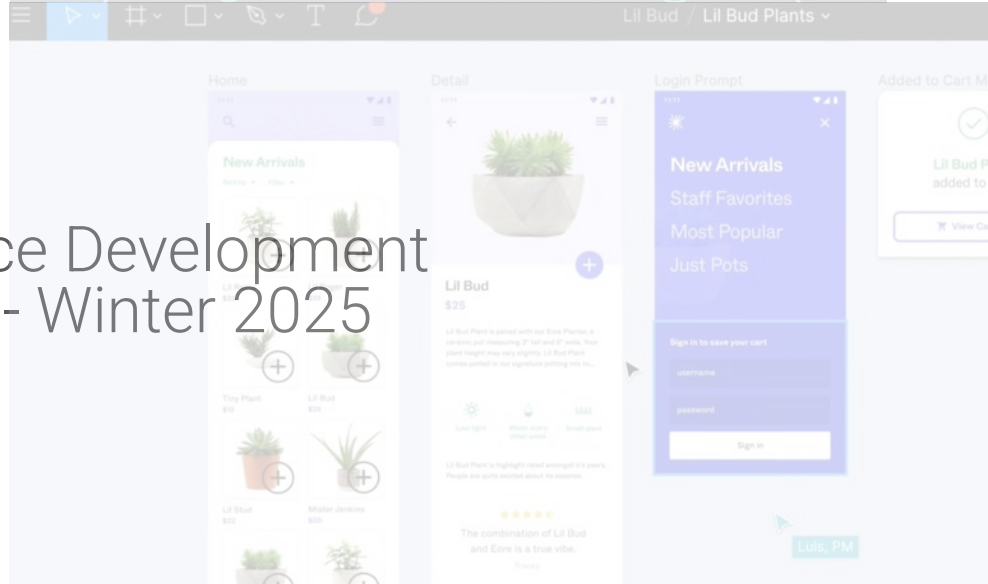
Prototyping with Figma



User Interface Development
EECS 493 - Winter 2025

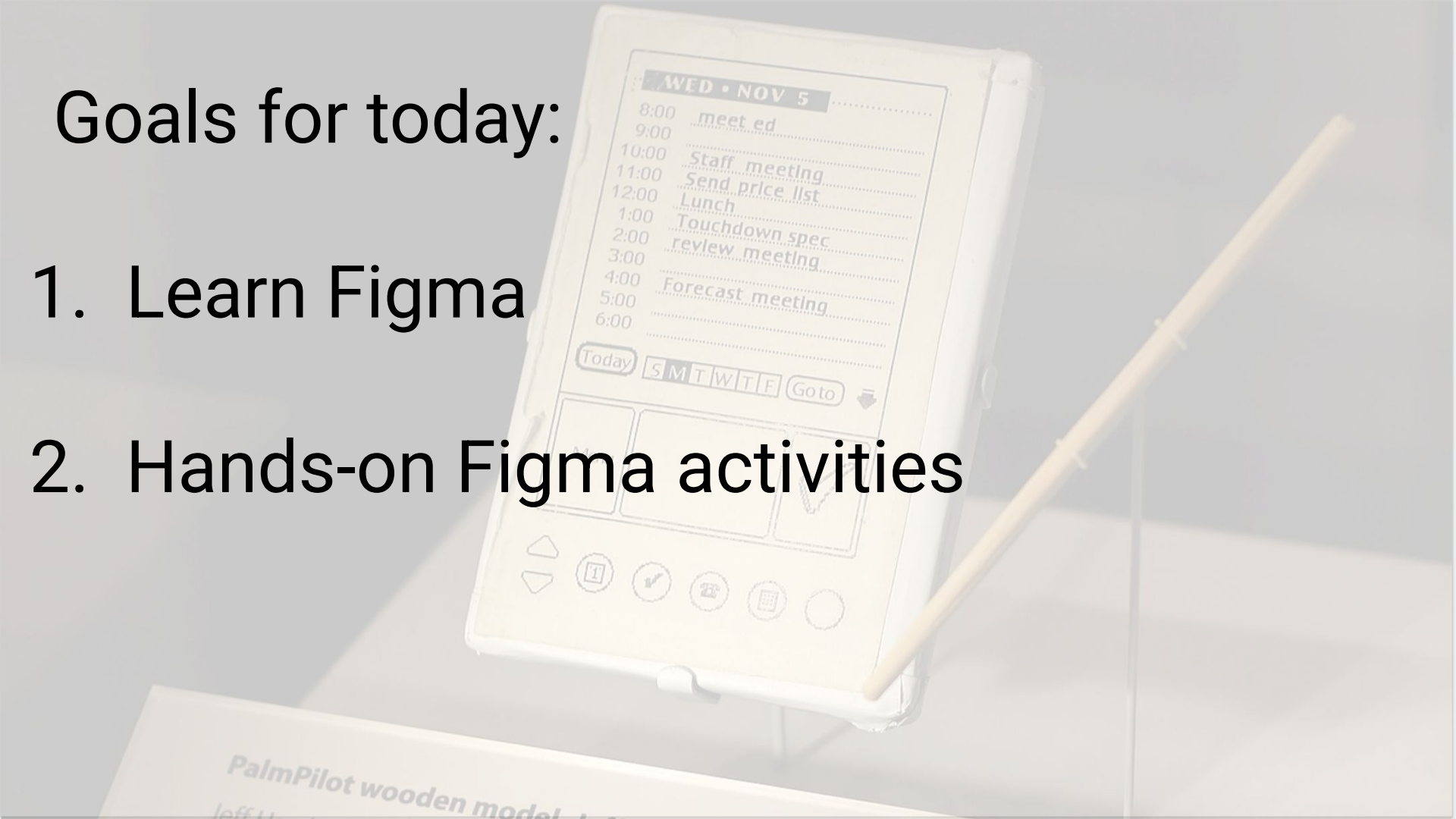
Administrative

1. Assignment 2 Regrade Request (**Fri 2/14**)
2. Project Milestone 1 (**Sun 2/16**)
3. Midterm (**Thur 2/20**)

Feb 17 - 23	L12: Industry Practitioner's Perspective No lecture Thursday	Discussion 6	Midterm Exam Feb 20th 6-7:30pm
Feb 24 - Mar 2	L13: Heuristic Evaluation L14: Storyboards In-class Bake-off		Milestone 2 - Storyboards & Speed Dating due Thur Feb 27 Before Class Milestone 2 remaining due Sun Mar 2 11:59pm

Goals for today:

1. Learn Figma
2. Hands-on Figma activities



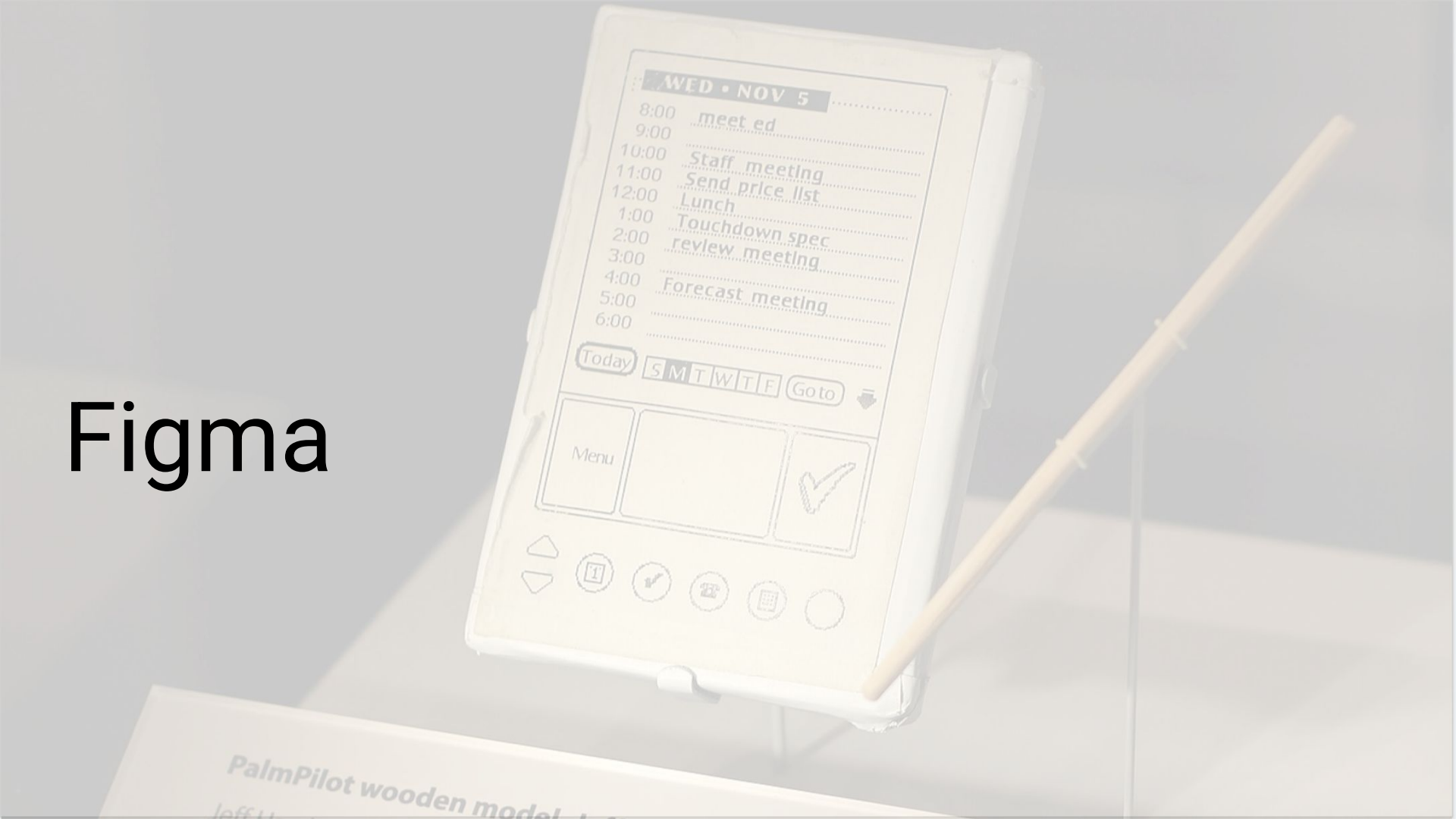
Using Figma in EECS 493

1. Milestone 1
2. Milestone 2

Assignment 4: Figma (3/16)

3. **Milestone 3**
   - ➢ **1st round of prototyping (3/30)**
4. **Milestone 4**
   - ➢ **2nd round of prototyping (4/8)**
5. Final Presentation

Figma

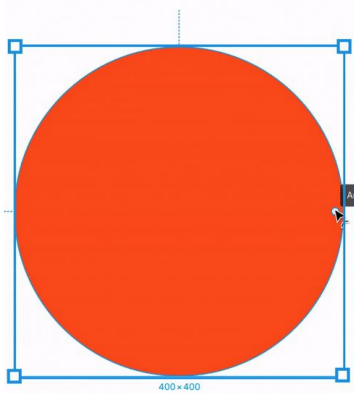

WED • NOV 5
8:00 meet ed
9:00
10:00 Staff meeting
11:00 Send price list
12:00 Lunch
1:00 Touchdown spec
2:00 review meeting
3:00
4:00 Forecast meeting
5:00
6:00
Today
S M T W T F
Goto
Menu
PalmPilot wooden model

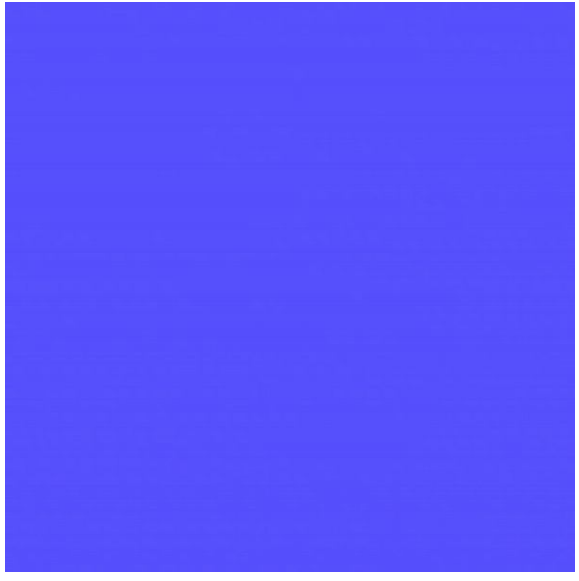
What is Figma

- A *collaborative* web application for UI/UX design
- Also available locally for desktops and for mobile devices
- Initial Release: September 27, 2016

What is Figma good for

- Designing user interfaces
- Building an interactive prototype
- Collaboratively
- For free





Figma Demo 1:
Roblox

Figma Demo 2:
Final Project from Fall 2024

Credit: Rota

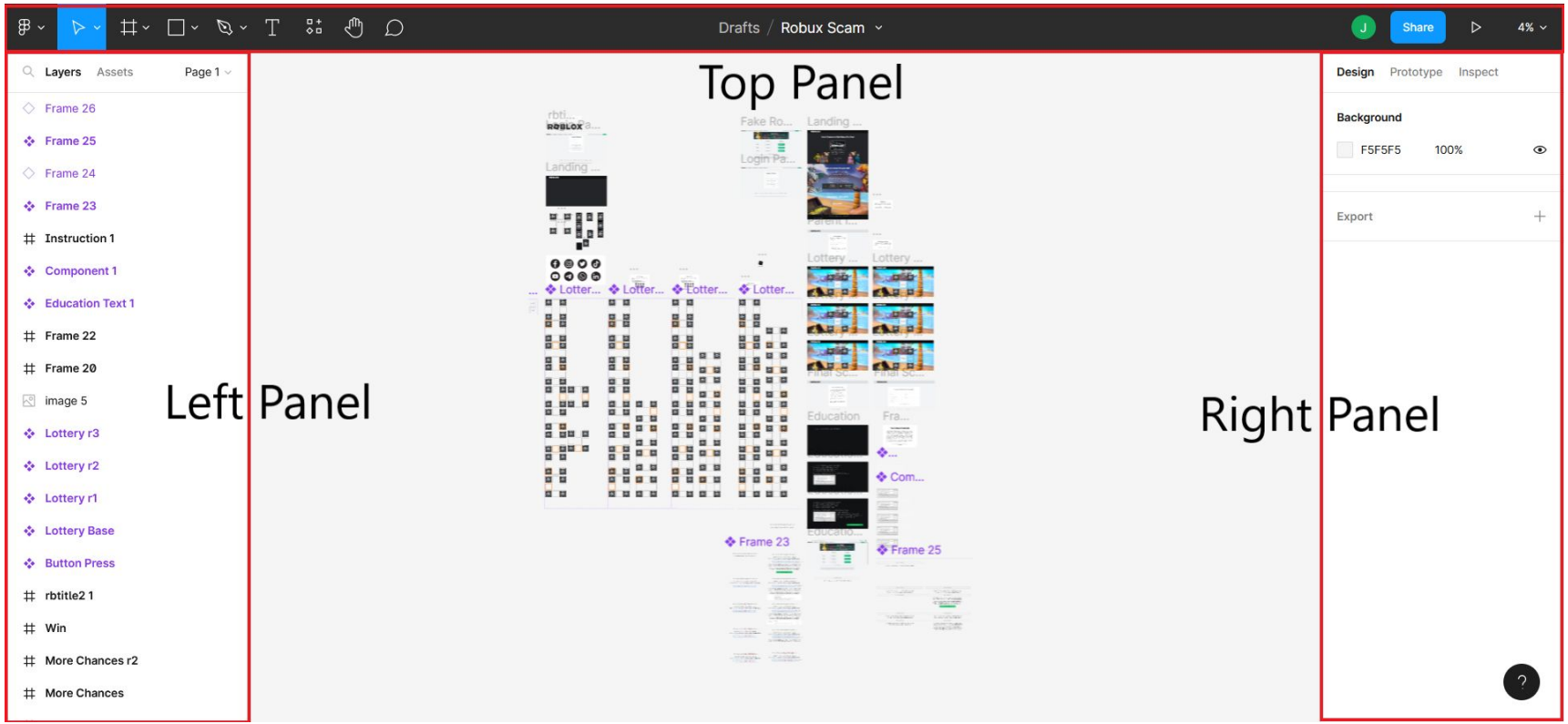
More Demos

- Check out more exemplary projects on our course website: https://eecs493staff.github.io/final-project/

Getting Started with Figma

1. Create an account with ***your school email***
    - Link: https://www.figma.com/
    - Verify education status (optional)
2. Make a copy of this file
    - Link
    - Shortened link: www.yellkey.com/feel
3. Share it with your neighbor(s)

Figma Basics & Workspace Layout



Figma Basics & Workspace Layout

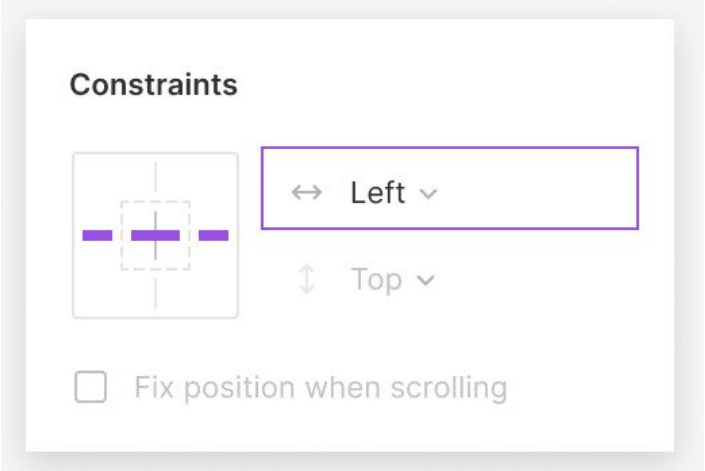
- Left Panel
  - Layers: view all elements you have created in the current page
  - Assets: view your (and other's) *Components*
- Top Panel
  - Create new elements
  - Location/Name of your design file
  - Share
  - Present
- Right Panel
  - Specific features of an element (layer)

Activity 1

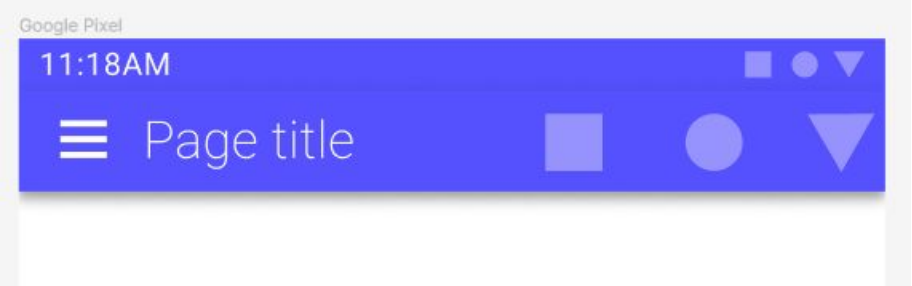
1. Start with a blank canvas/page
2. Create a frame
3. Add text
4. Add shape
5. Play around with the right panel
6. Present!

Constraints

- Great for responsive design
- Defines how elements should respond when their parent’s size changes
- See more here



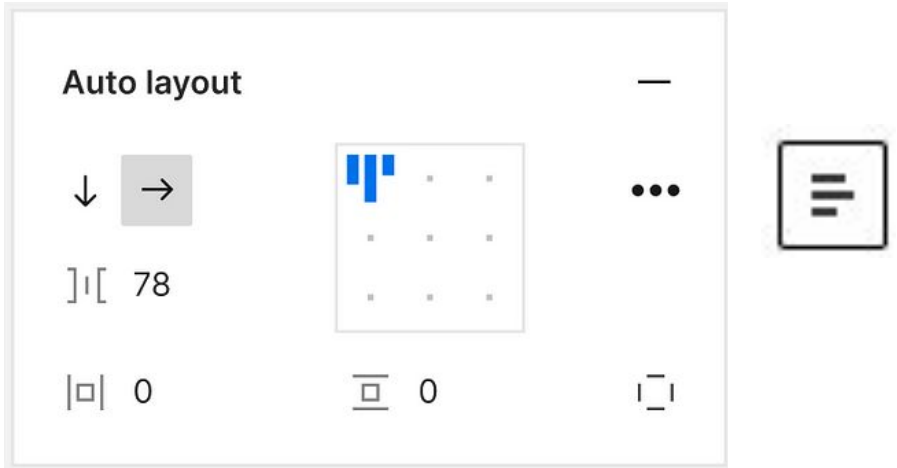
Activity 2



1. In “Constraints Starter” page
2. Place elements into “App Bar” while ***applying appropriate constraints***
   a. Page title must have fixed distance to the ***left*** border and always stays in the ***vertical center*** when adjusting the frame
   b. must have fixed distance to the ***right*** border and always stays in the ***vertical center*** when adjusting the frame
3. Place “App Bar” into “Google Pixel” frame
   a. “App Bar” must have fixed distance to the ***top*** border, and fixed distance to both ***left and right*** borders when adjusting the frame

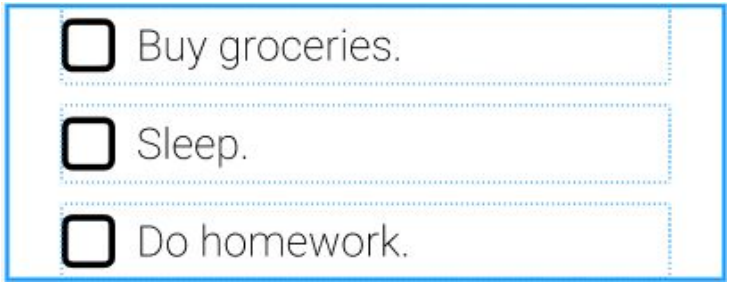
Auto Layout

- Great for responsive design
- Easily organizing the placement of multiple elements
- See more here



Activity 3

1. In “Autolayout Starter” page
2. Create each TODO item ***using Auto Layout***
    a. The distance between the checkbox and the text are the same for all 3 items
3. Create the TODO list ***using Auto Layout***
    a. The distance between the 3 items are the same
4. Place the TODO list into the “Google Pixel” frame

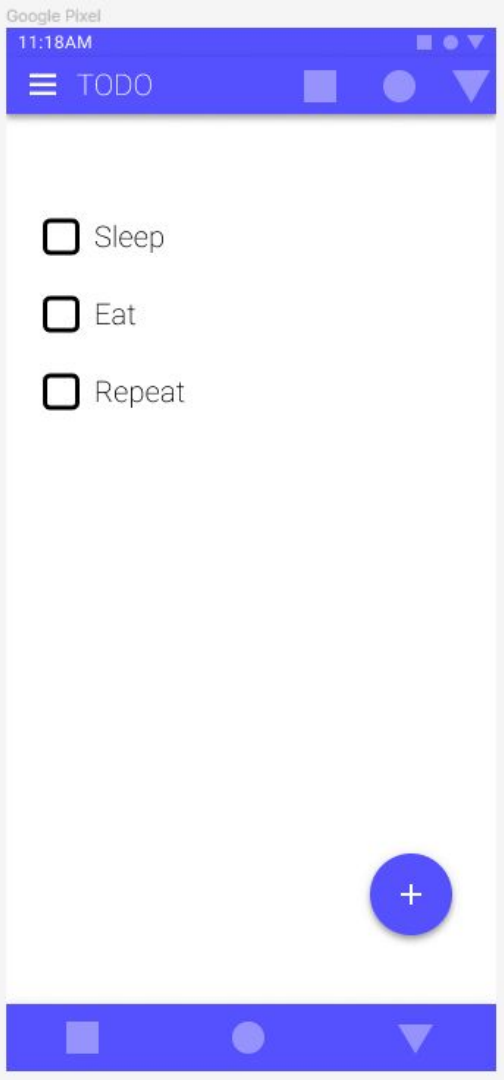


Components

- Elements that can be *reused* across designs
- Great for consistency
- Main Component: parent, original element
- Instance: child, inherits all properties of main
- See more here

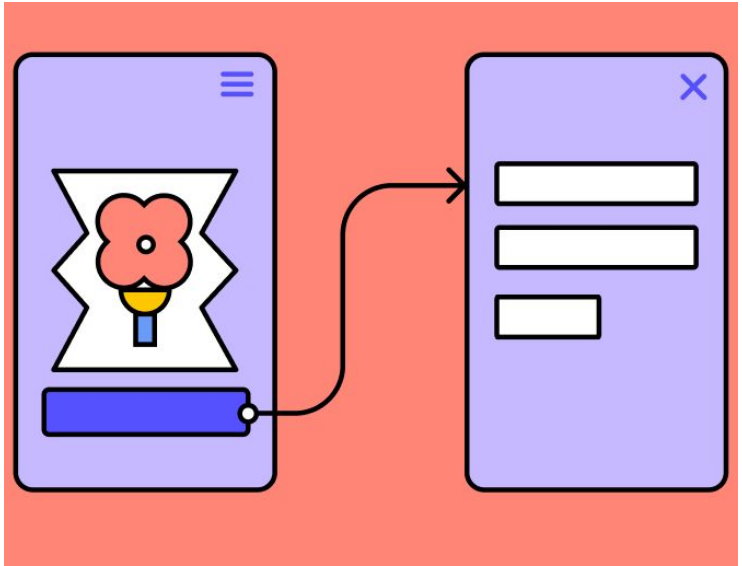
Activity 4

1. In “Components Starter” page
2. Make “Floating Action Button” a component and put an instance of it into “Google Pixel” frame
3. Make “Item” a component
   a. Create 3 instances of Item with the different texts
   b. Apply same Auto Layout to these 3 instances (like Activity 3)
   c. Put them into “Google Pixel” frame



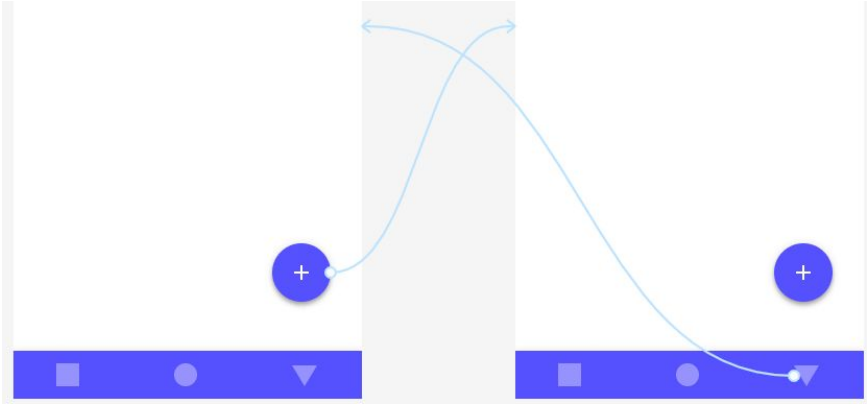
Prototyping

- Define interactive flows between frames
- Show how a user may interact with your design
- See more here



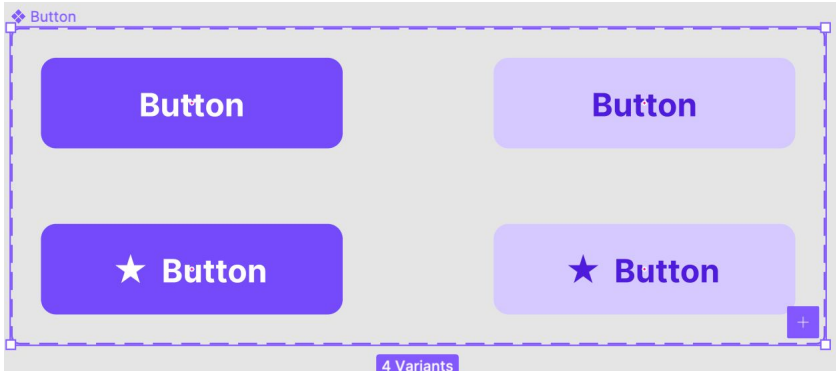
Activity 5

1. In “Prototyping Starter” page
2. Define an interaction s.t. clicking the “Floating Action Button” takes the user from “Google Pixel 1” frame to “Google Pixel 2” frame
3. Define another interaction s.t. clicking triangle at the bottom right of “Google Pixel 2” frame takes the user to “Google Pixel 1” frame



Variants

- Components that are similar to each other with only slight differences
- Group/organize similar *components* together
- Define different properties/states
- See more here



Interactive Components

- Create prototyping interactions between variants in a component set
- Reduces repetitive frames
- Great for creating microinteractions
- See more here

Activity 6

1. In “Variants Starter” page
2. Create an interactive component for “My Button” that
   a. when hovering, changes color to pink
   b. and a piece of text, “Add TODO item”, displays on top

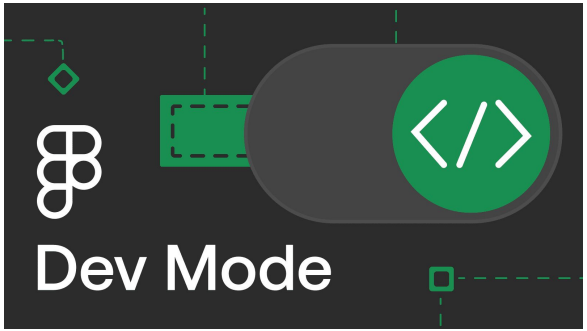
3. Create an interactive component for “My Item” that
   a. clicking it once crosses out the item and check the checkbox
   b. clicking it again un-crosses the item and un-checks the checkbox

Bonus: Variables

- Motivation
  - Further level up interactivity of your prototype
  - We can’t achieve certain behavior using previous features
- Solution: Variables (released in 2023)
  - Demo: Interactive Keyboard
- Remark: You need to have an education plan (free with umich email) or paid plan to use this feature
- Helpful Links
  - Intro to variables
  - Apply variables

Bonus: Dev Mode

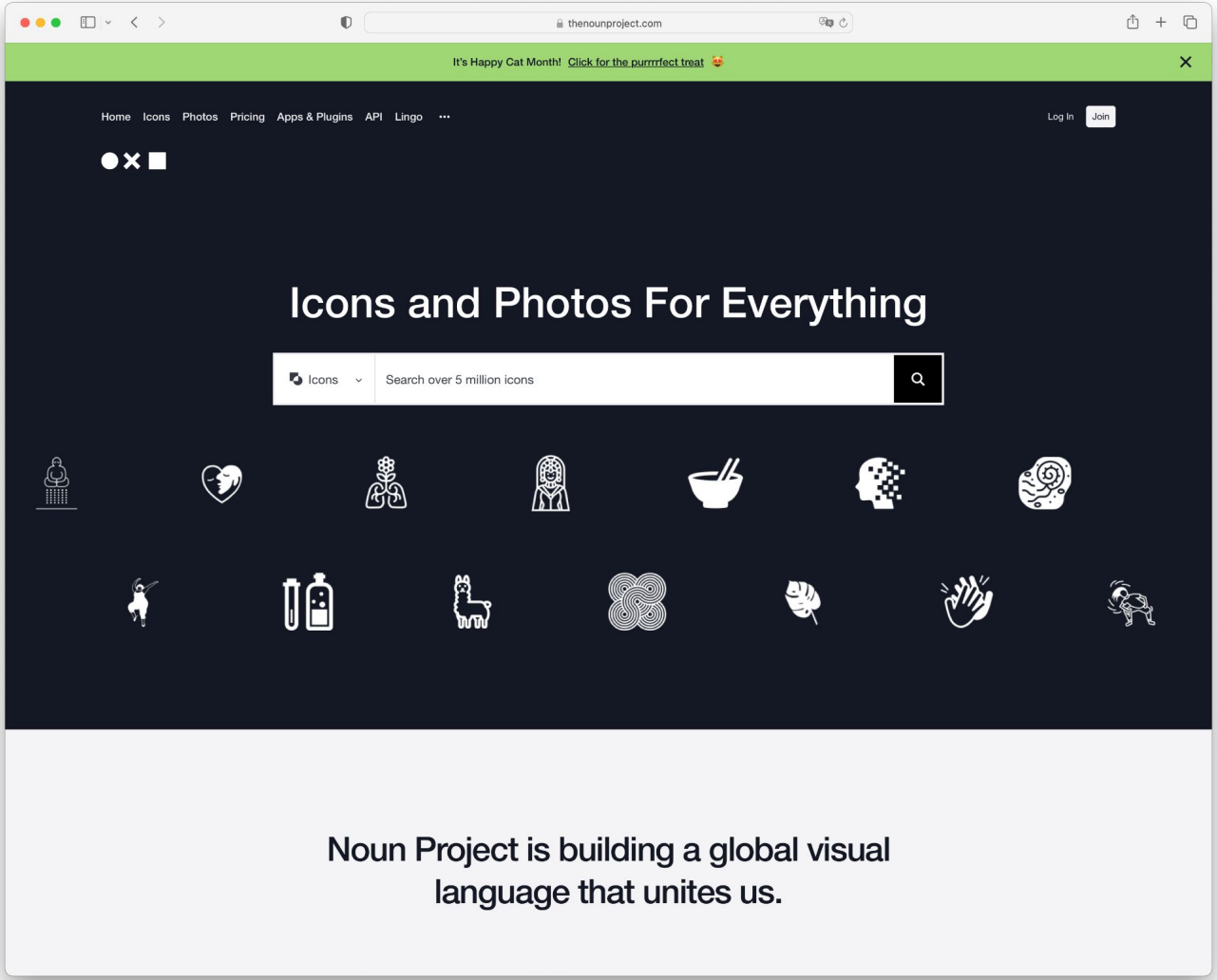
- Motivation:
  - You want to turn your Figma prototype into a MVP
  - Need to write code from scratch
- Solution: Dev Mode (released 2023)
  - Convert designs into code
    - HTML/CSS, Tailwind, React/JSX
  - Useful for frontend developers
  - A lot of room for improvement
- Guide to dev mode



Bonus: New Features (in Beta)

- Config: Annual Figma design conference
- New features announced in Config 2024
  - Figma AI
  - Improved Dev Mode
  - New UI (UI3)
  - much more…
- Currently still in Beta!
- Read more

The Noun Project



https://thenounproject.com/

Summary

- Figma
  - Basics (frames, shapes, etc.)
  - Constraints
  - Auto Layout
  - Components
  - Prototyping
  - Variants & Interactive Components
  - Bonus (variables, dev mode, config)
- Check out the links in the slide to learn more about Figma