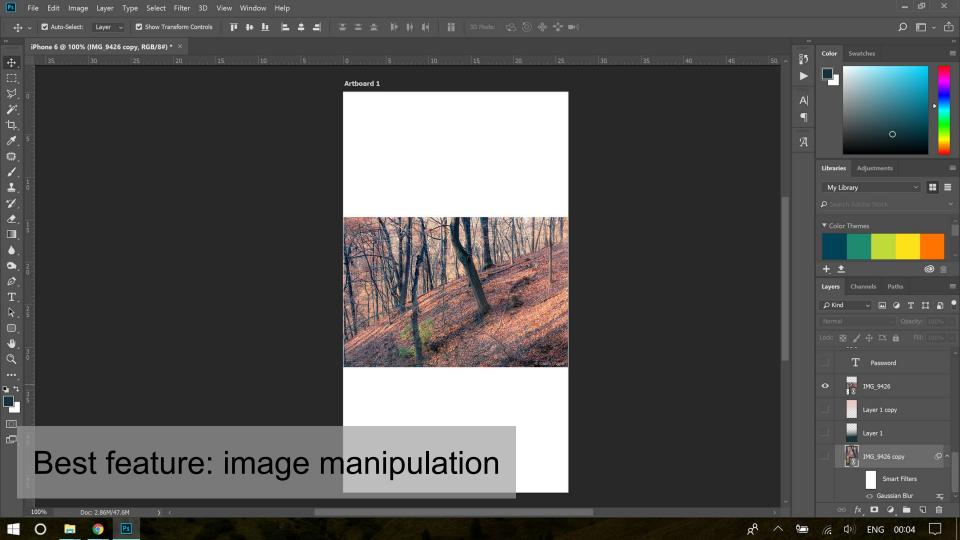
## **Prototyping Tools**

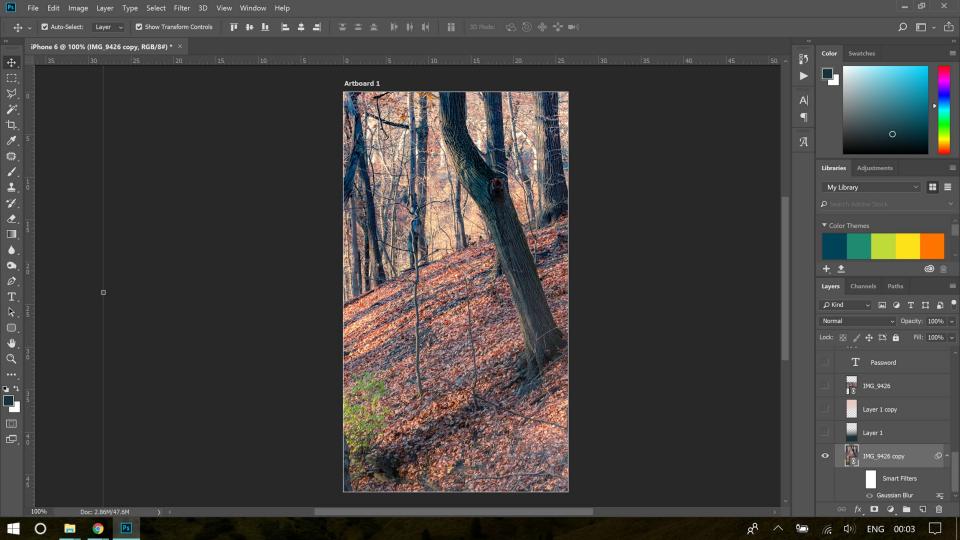
Jenna Choo, Kristina Wagner, Alex Wang TAs for:

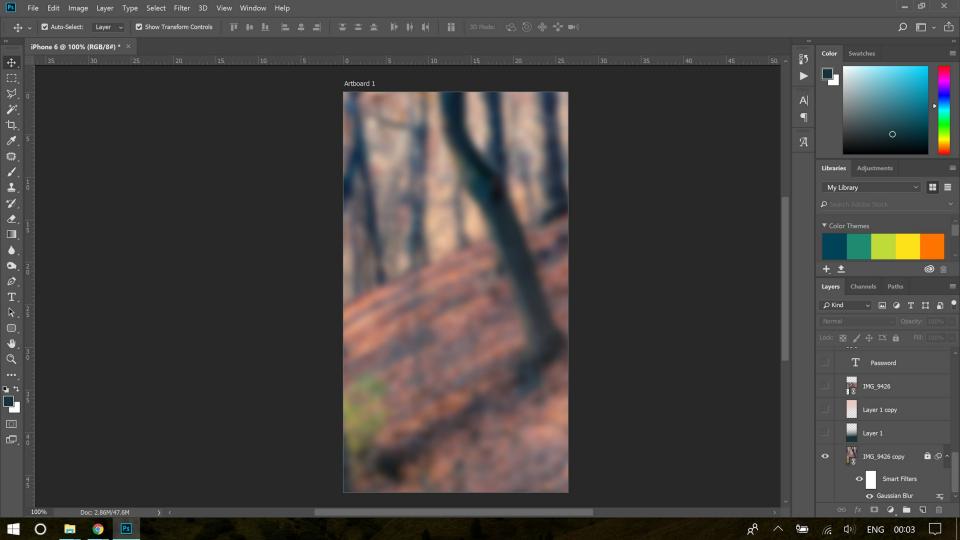
05-863 / 45-888: Introduction to Human Computer Interaction for Technology Executives, *Fall, 2017, Mini 2* 

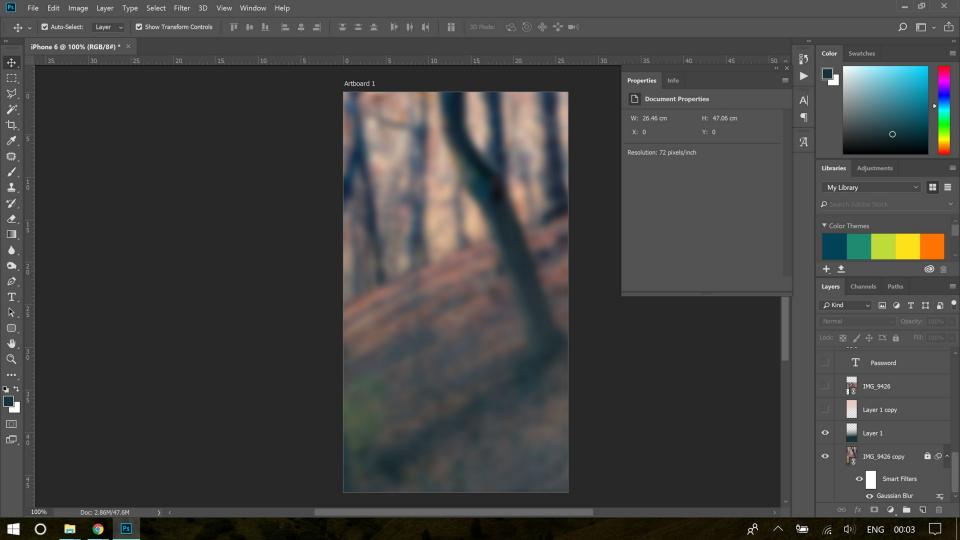


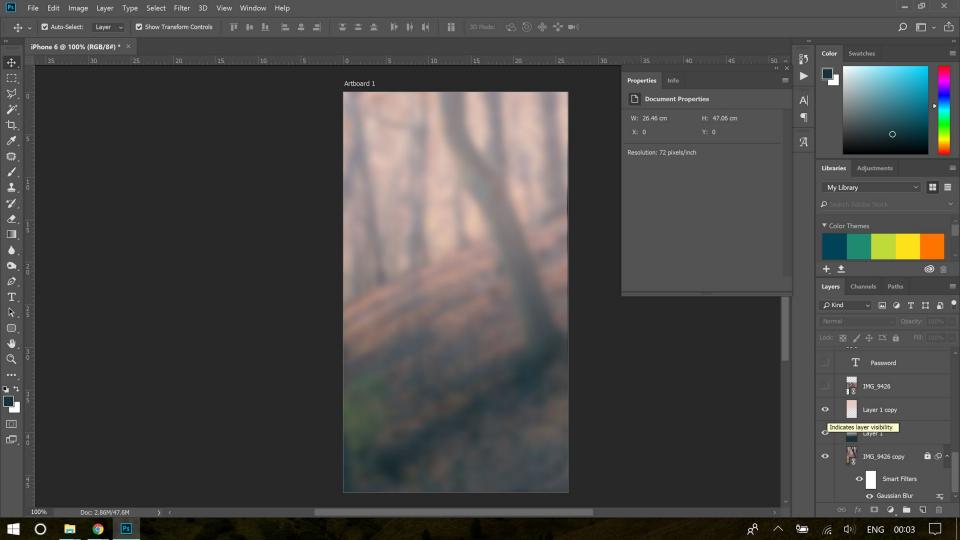
## Ps Adobe Photoshop

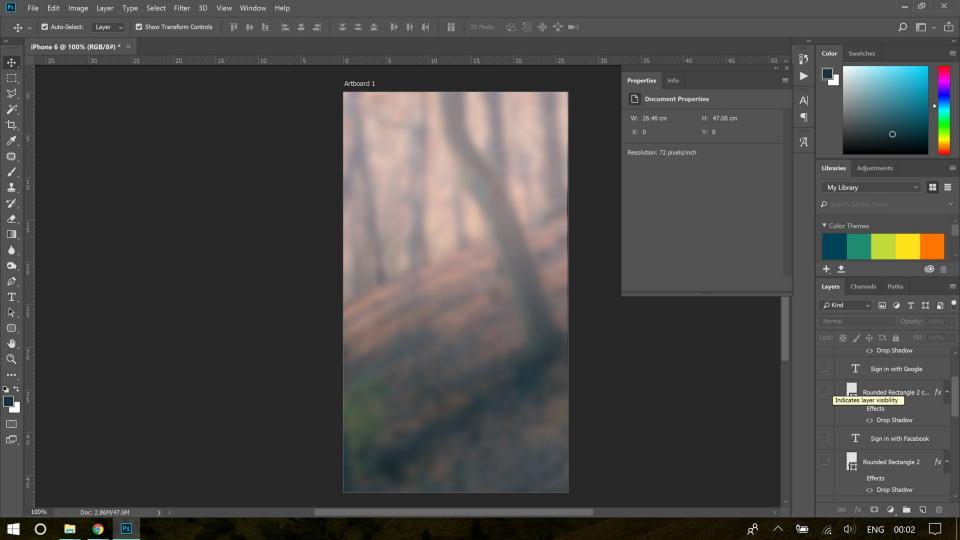


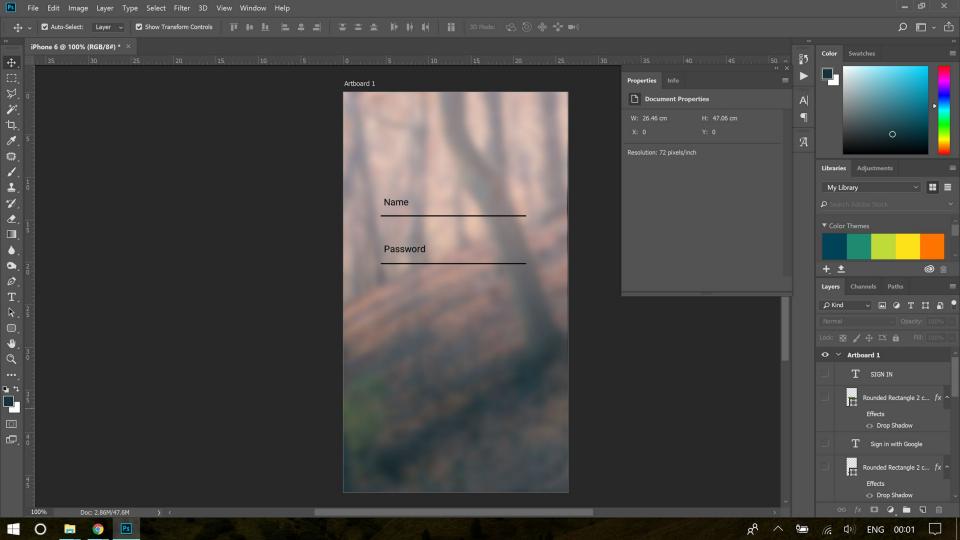


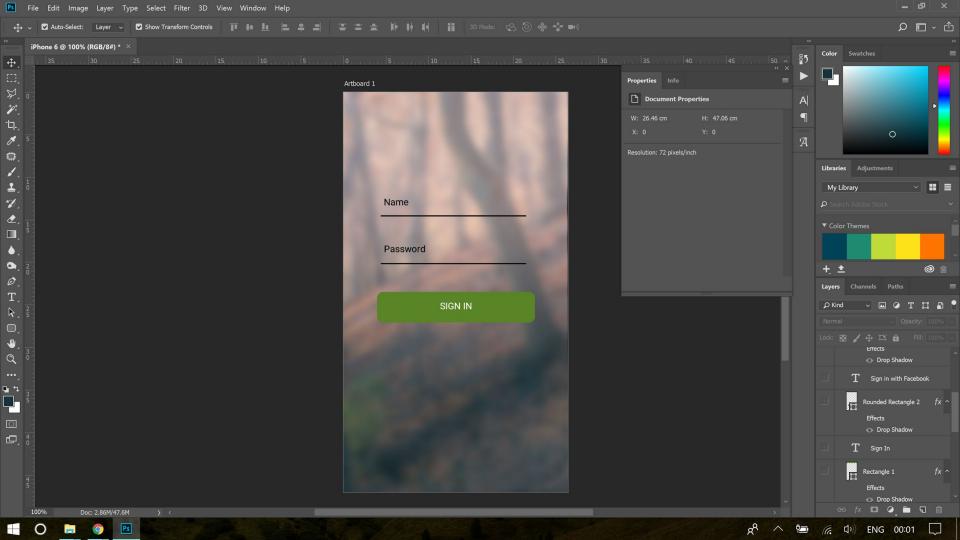


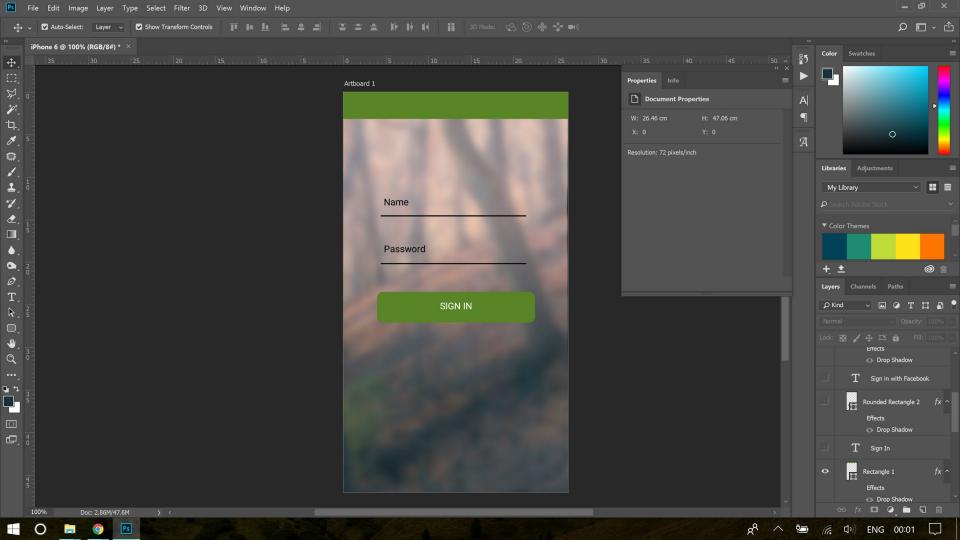


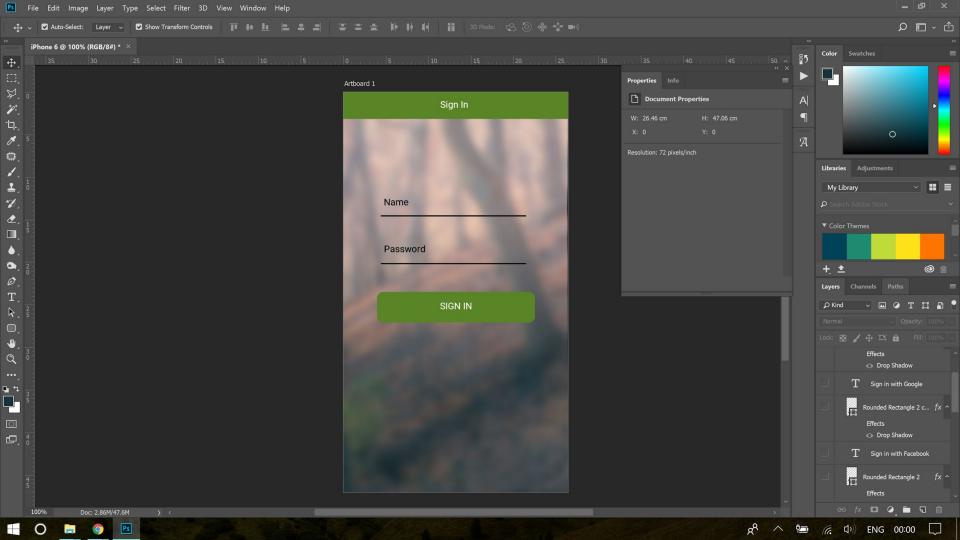


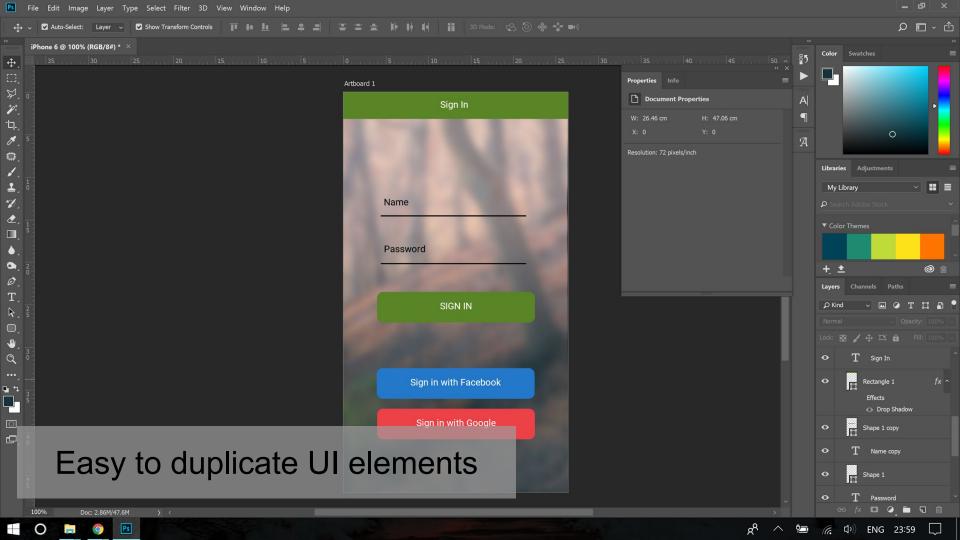


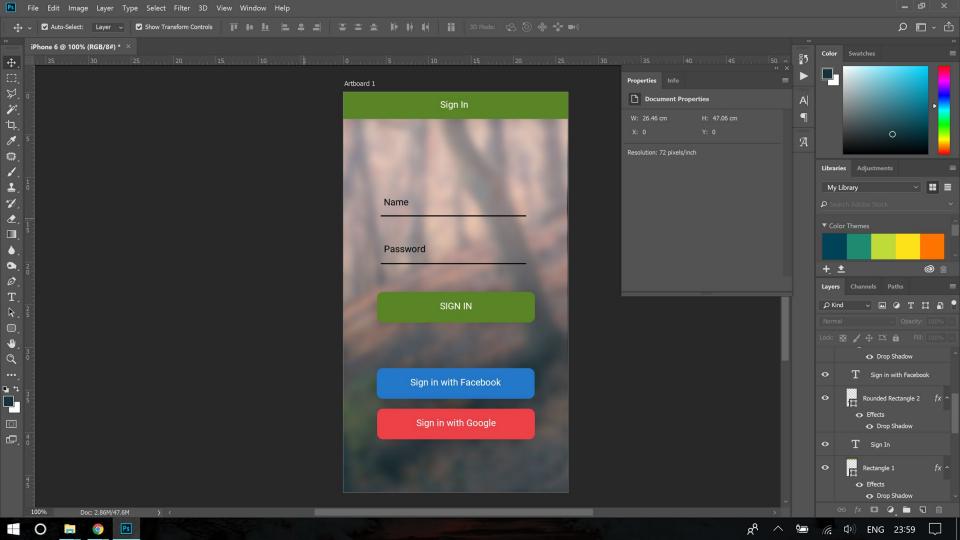


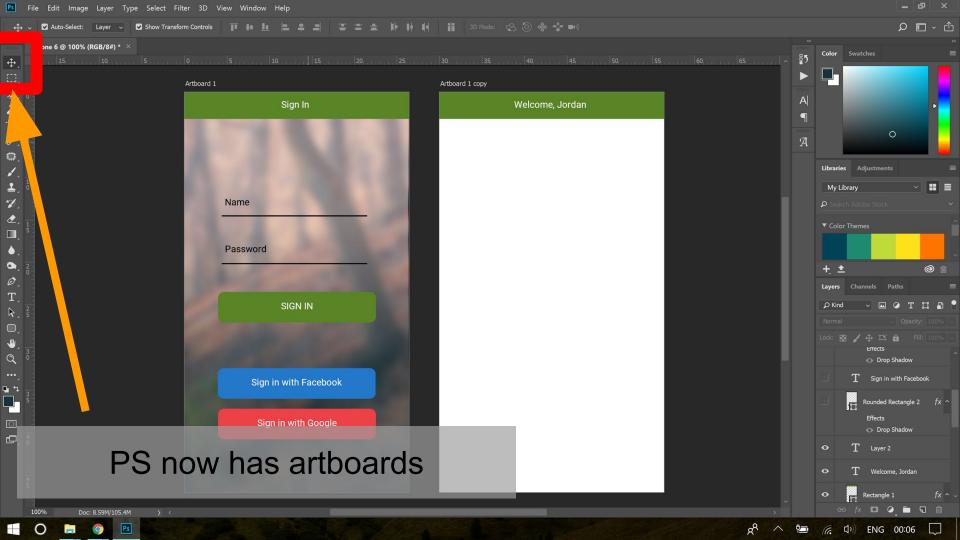


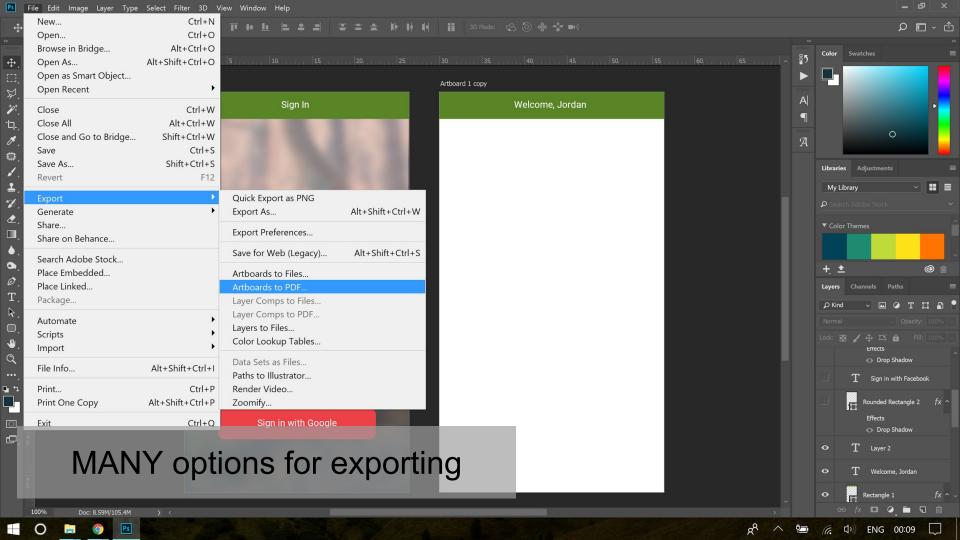












Time: About 8 minutes





### Let's design an app.

Start with the in-app tutorial to design your first app, or select a layout below to explore on your own.

**Begin Tutorial** 



### Open App, select device

Start a new design.



**UI Kits** Resources Apple iOS What's New Google Material Learn & Support Microsoft Windows Provide Feedback Wireframes Release Notes







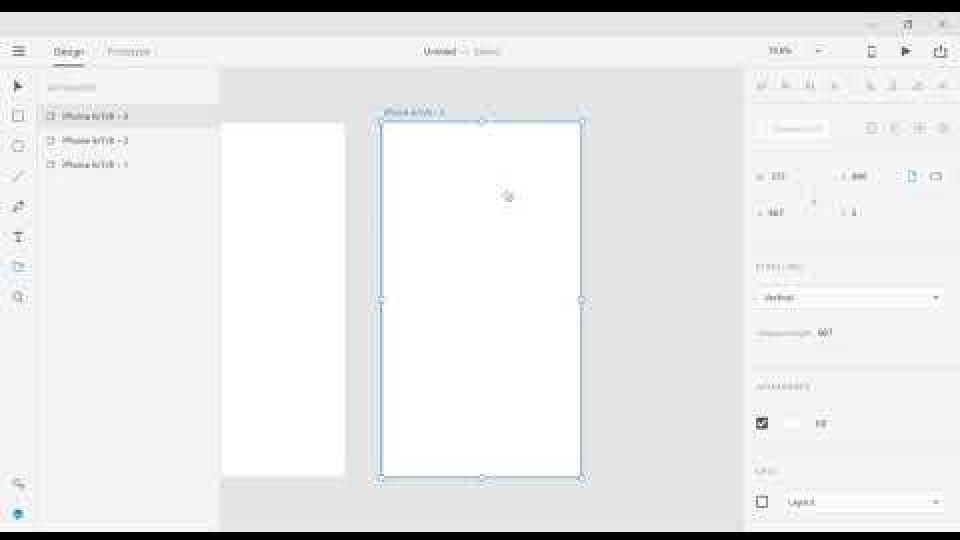


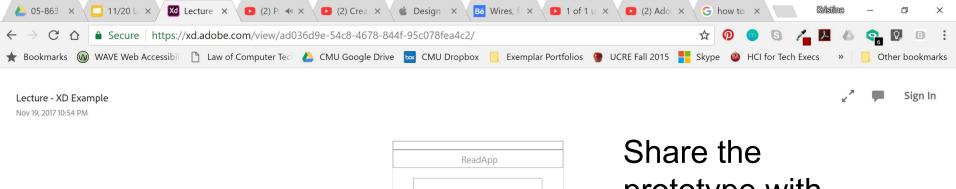














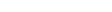
prototype with your team members:

https://xd.adobe.com/view/a d036d9e-54c8-4678-844f-95 c078fea4c2





















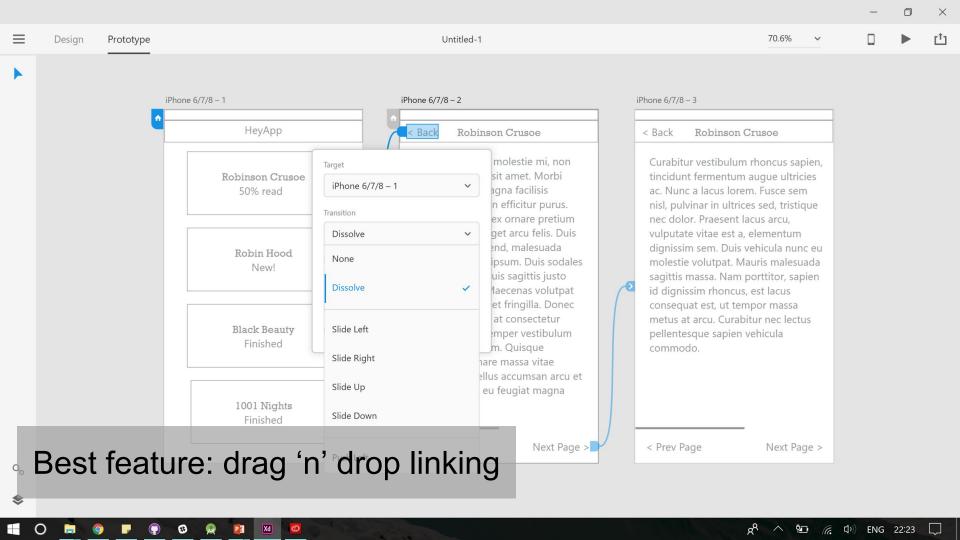


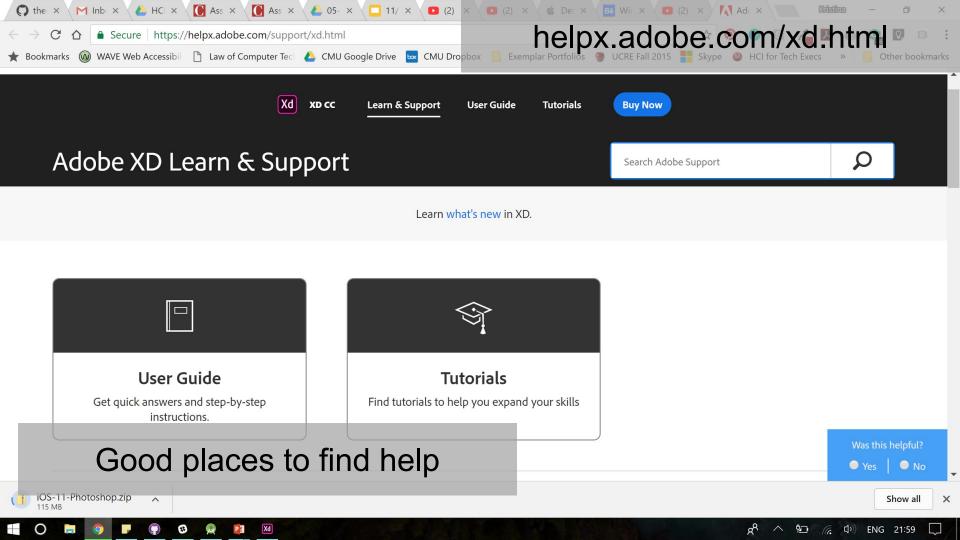




Made with Adobe XD

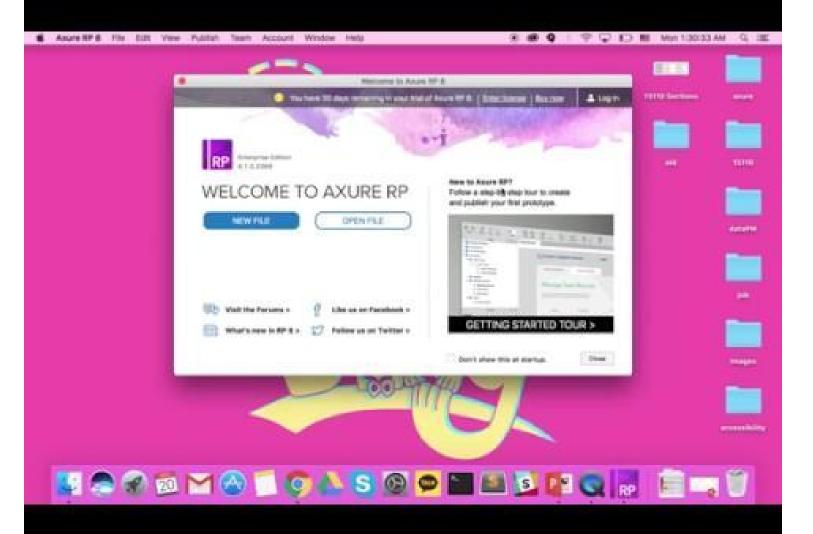




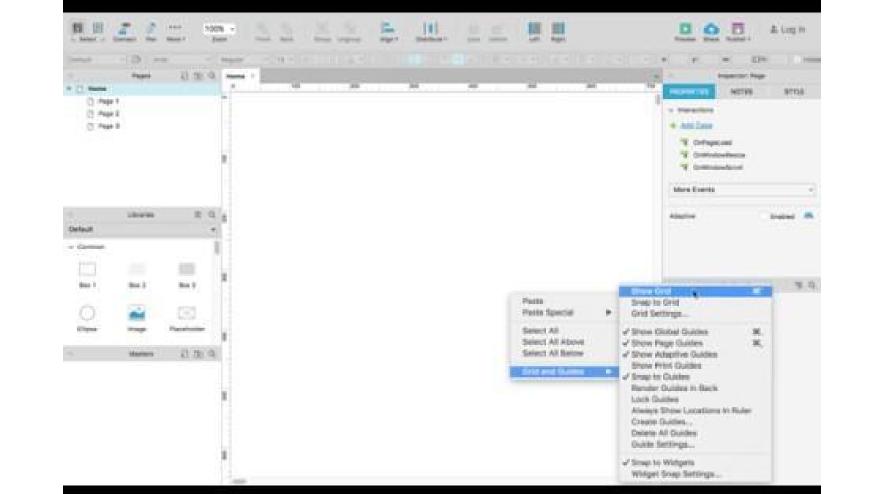


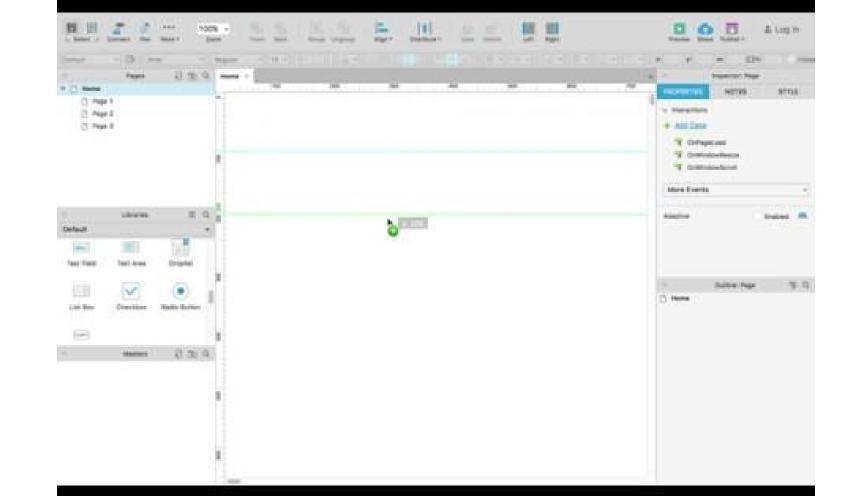
Time: 7:56 minutes

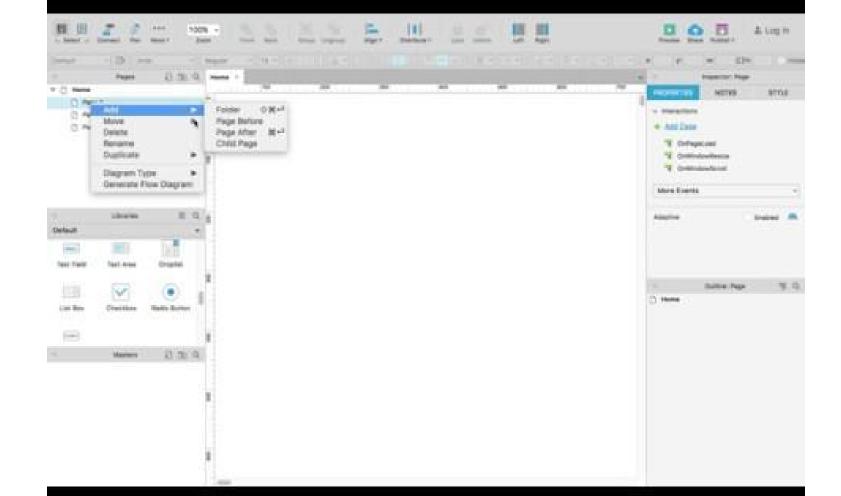
# axure

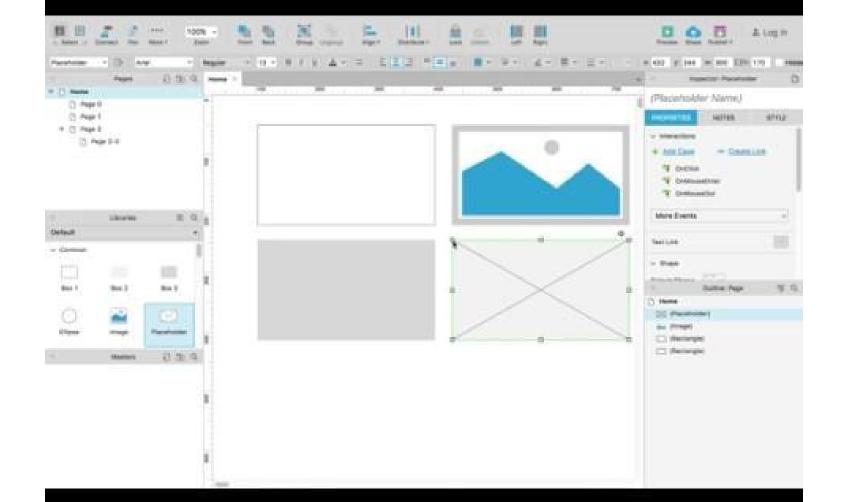


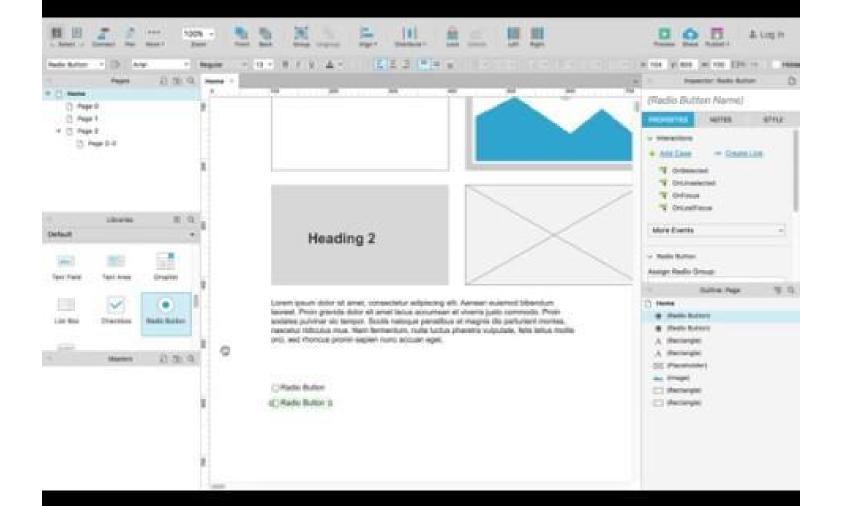
### Untitled - Axure RP 8 Enterprise Edition : Unlicensed 100% -Log In ∟ Select ⊔ Distribute ▼ Publish ▼ Connect Pen Back Align ▼ Lock Unlock Share More ▼ Zoom Group Ungroup - D Arial Regular [] h: Default y: Hidde £ € Q Inspector: Page Pages Home × 700 500 600 0 300 400 **▼** ☐ Home **PROPERTIES** NOTES STYLE Page 1 Interactions Page 2 + Add Case Page 3 OnPageLoad OnWindowResize OnWindowScroll More Events Libraries **≡** Q Default Adaptive Enabled .... ✓ Common Outline: Page TA Q Box 1 Box 2 Box 3 ☐ Home ₽ **Q** Masters

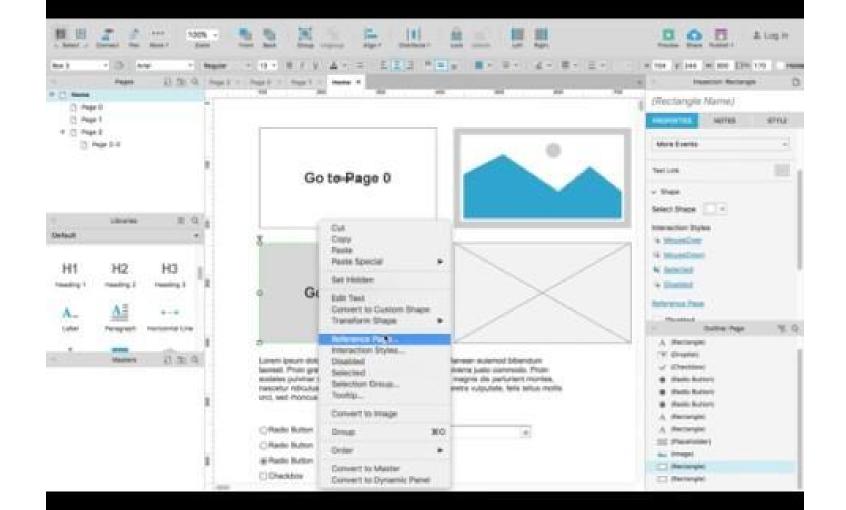


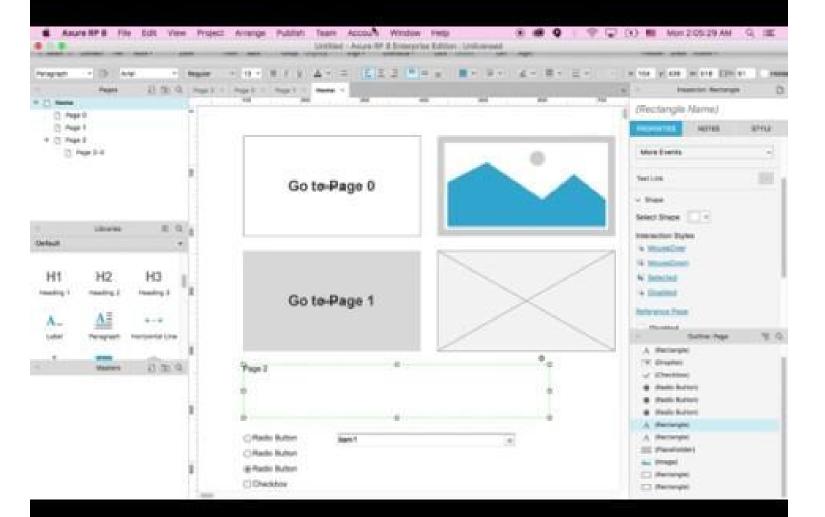














# CSS HTML Javascript

#### **HTML 101**

```
<!DOCTYPE html>
```

```
<html>
   <head>
       <title>Page Title</title>
   </head>
   <body>
       <h1>I am a heading!</h1>
       I am a paragraph.
   </body>
</html>
```

## I am a heading!

I am a paragraph.

# HTML 101 - Tags

```
<!DOCTYPE html>
```

```
<html>
   <head>
       <title>Page Title</title>
   </head>
   <body>
       <h1>I am a heading!</h1>
       I am a paragraph.
   </body>
</html>
```

<tag>content goes here</tag>

- <div>
- <h1><h2>...<h6>
- •
- <img>
- <input>
- <a>>

#### HTML 101 - CSS

```
<!DOCTYPE html>
<html>
   <head>
       <title>Page Title</title>
       <link rel="stylesheet" type="text/css" href="theme.css">
   </head>
   <body>
       <h1>I am a heading!</h1>
       I am a paragraph.
   </body>
</html>
```

#### HTML 101 - CSS Demo

```
body {
   background-color: yellow;
h1 {
   color: blue;
   color: red;
```

## I am a heading!

I am a paragraph.

# HTML 101 - CSS Selectors

- Use generic html tag names to address all applicable
- .class\_name
- Use the class names and ids to address specific items
- #id\_name

#### HTML 101 - CSS Selectors

- height
- width
- font (type, size, color, weight)
- color
- padding
- margins
- background-images
- vertical/horizontal spacing

- positioning (item, text)
- shadowing
- display properties
- layering of objects
- opacity
- floating/arranging objects
- responsive design and much much more ...

# More CSS Example

```
#id_name {
    height: 100px;
    width: 100px;
    padding: 10px;
    background-color: red;
    text-align: center;
}
```

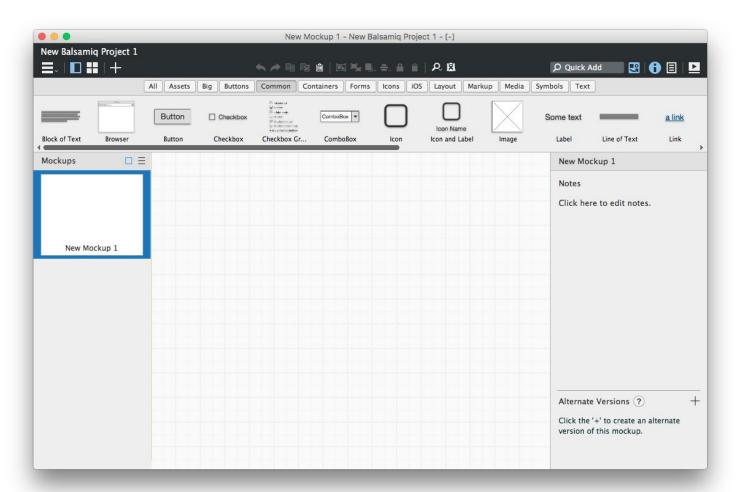
# **Text Editors**

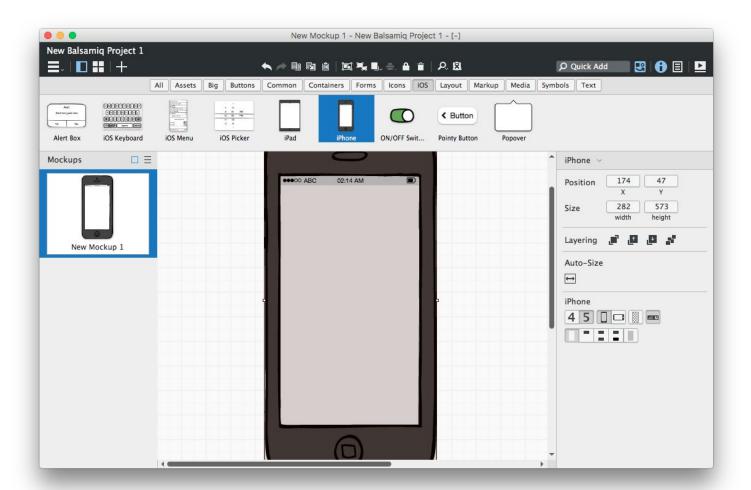
- Sublime Text
- Brackets
- Adobe Dreamweaver
- Terminal Vim, Emacs

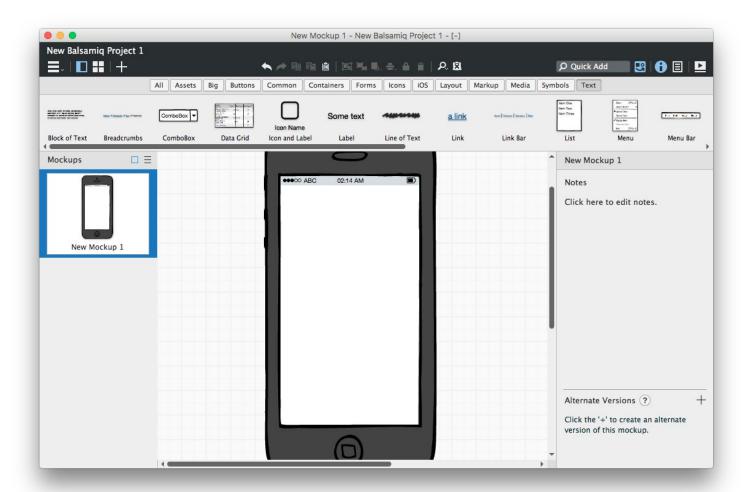


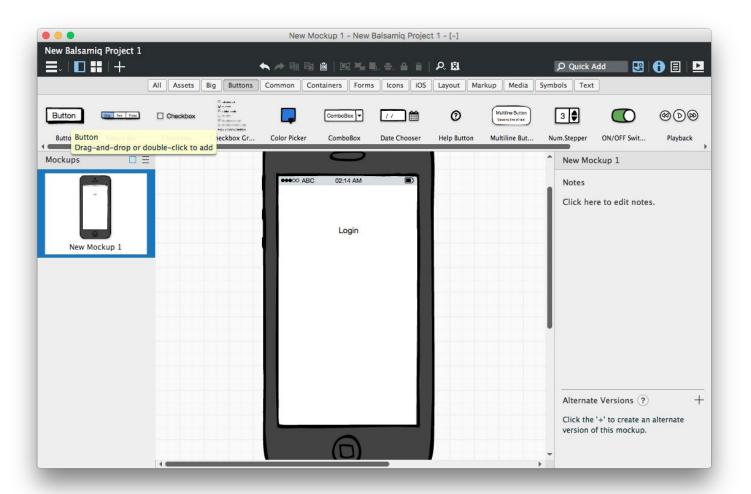
# What is Balsamiq?

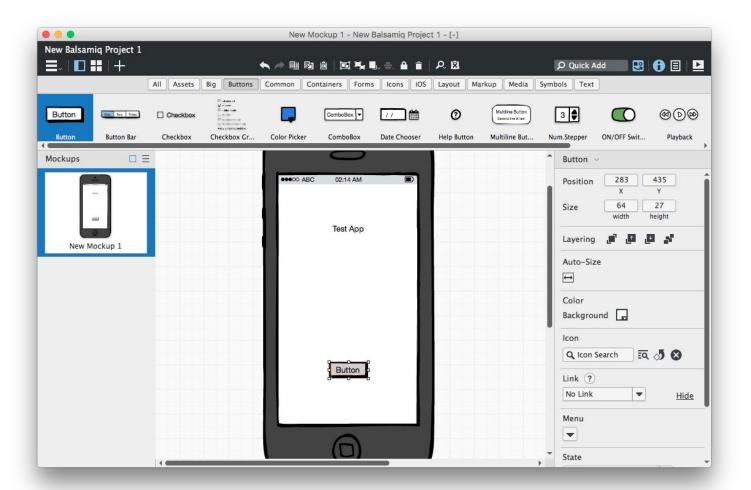
- Purposely simple wire framing
  - Art style is hand drawn
  - Makes designers think only about the UX, not about color, animation, etc.
  - Makes testers think only about the UX as well
- Alright at making clickable prototypes
  - It has the functionality, but it's not amazing
  - Can use weird presentation mode or export as interactable PDF
- If you need higher fidelity, you'll have to change software
  - Transitioning from lo-fi to higher fidelity may be a lot of duplicated work

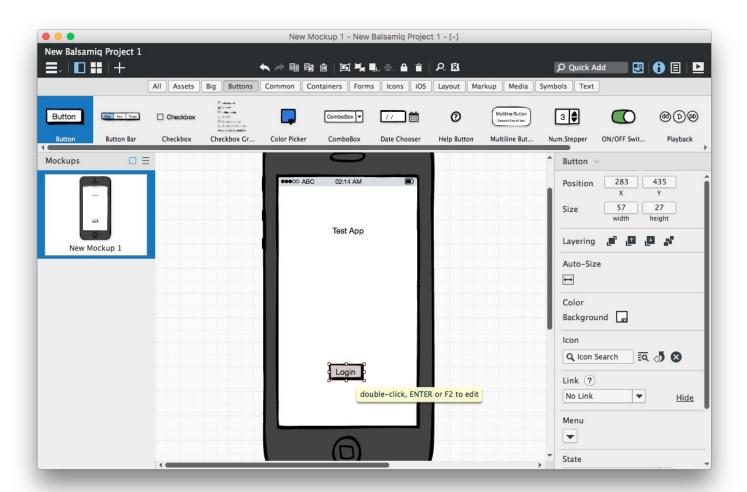


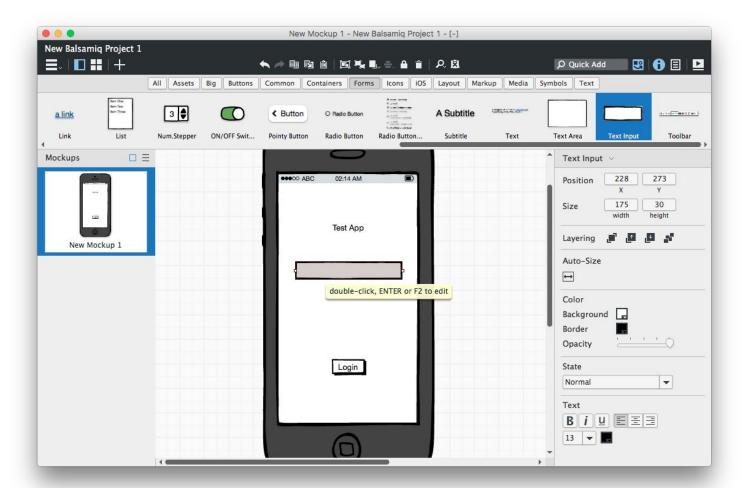


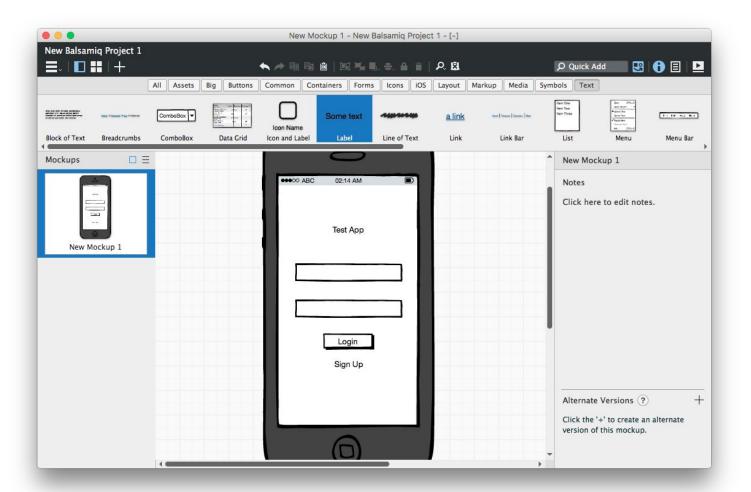


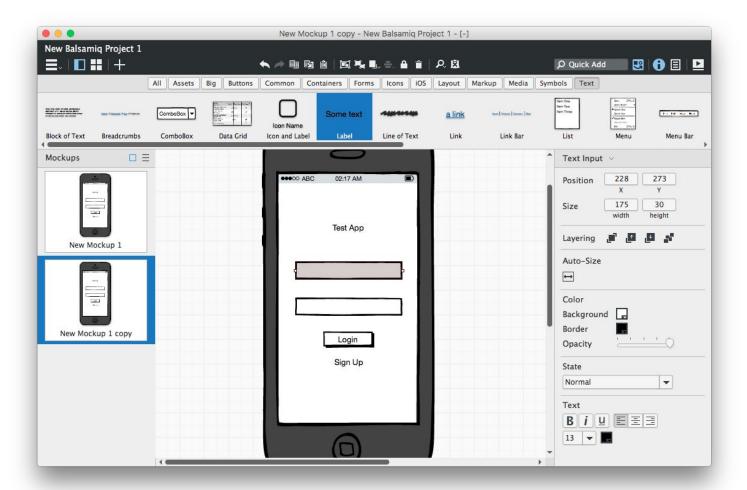


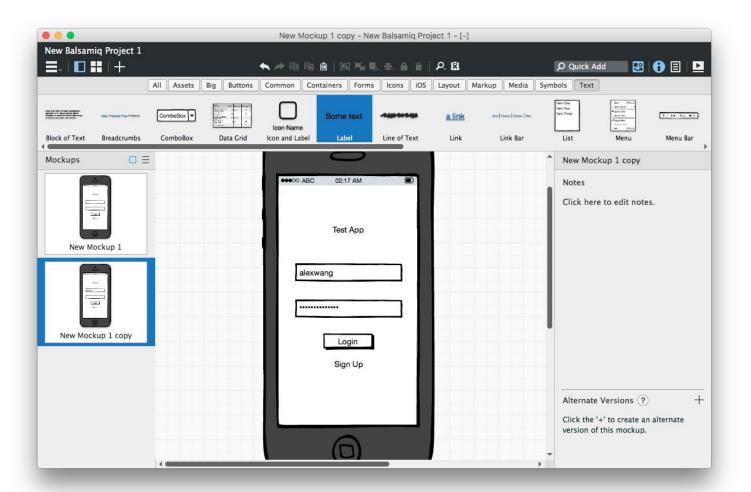


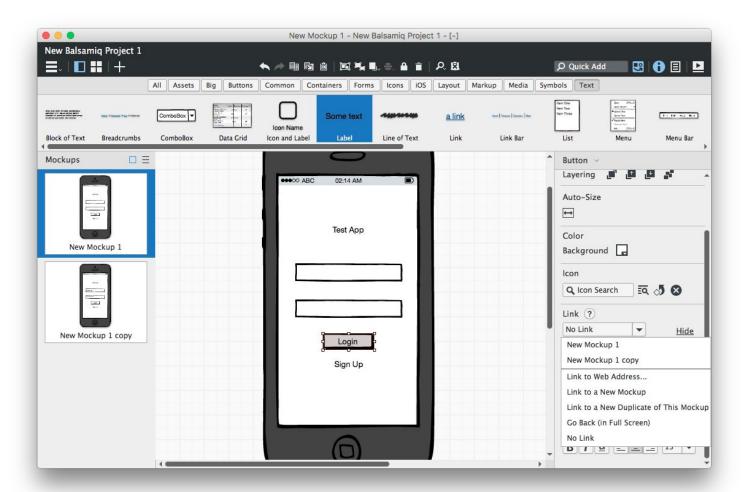


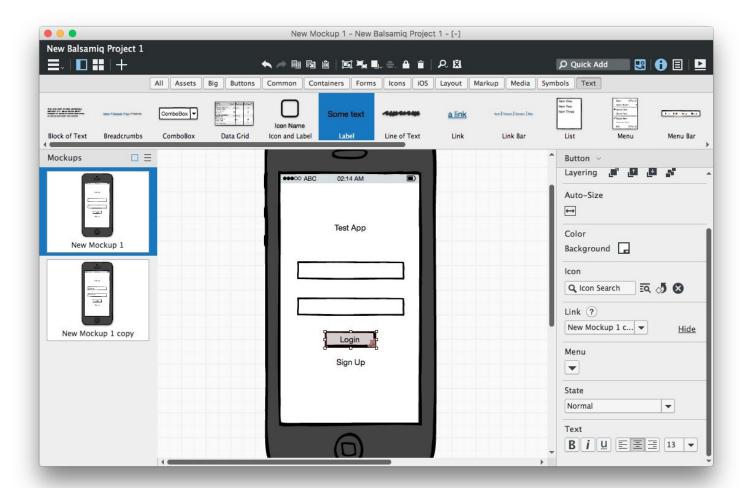






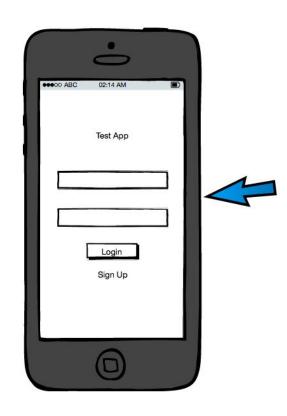












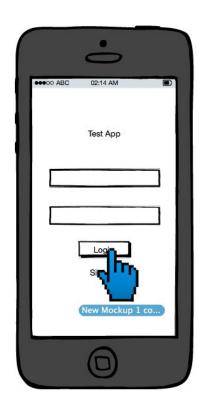






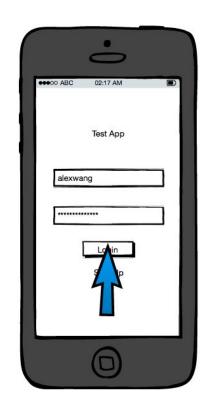






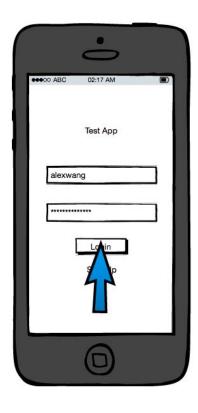










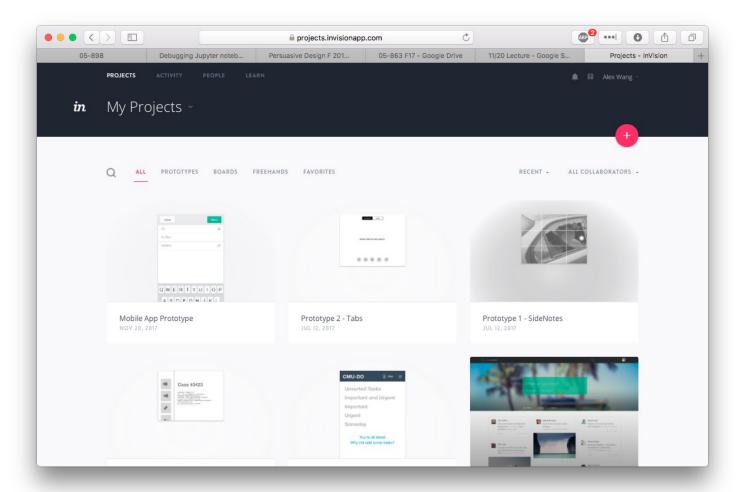


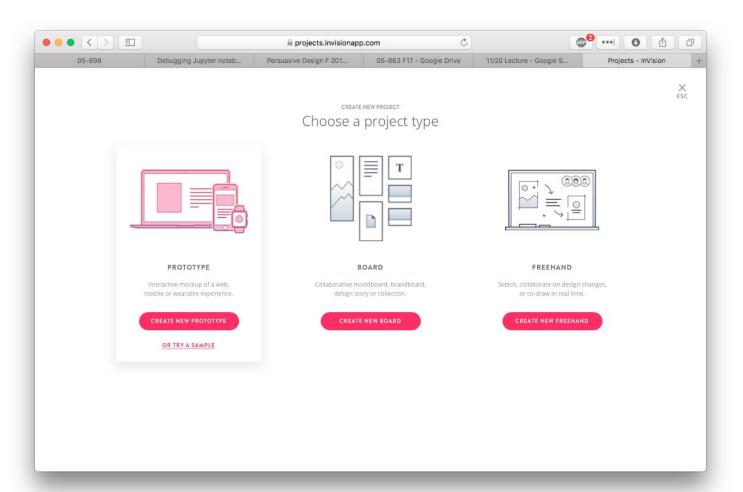
You can export as a PDF and maintain the links

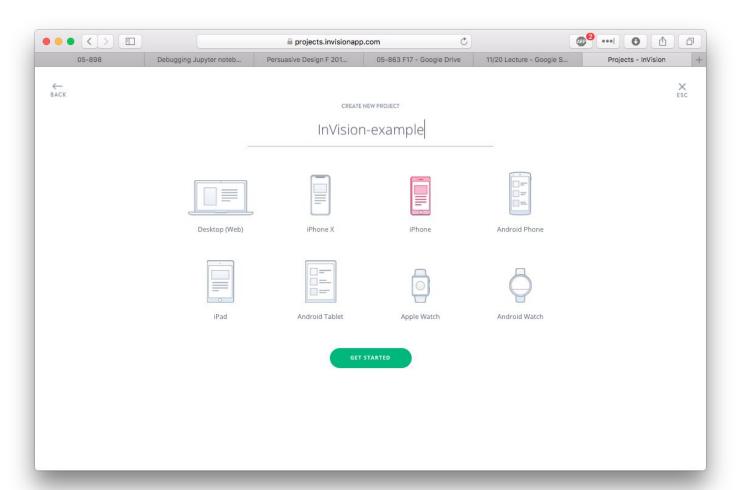
# invision

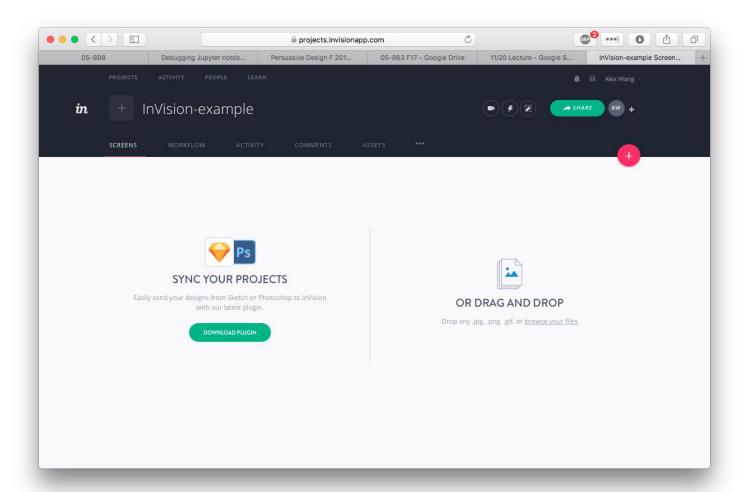
#### What is InVision?

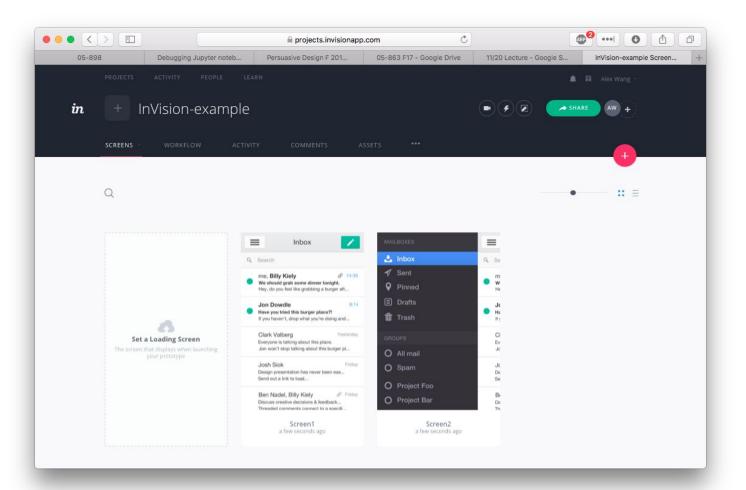
- Online website that lets you create clickable prototypes by linking images you upload
  - Free to get started
  - Extremely fast, super simple
  - Easy to share
- You need to create your own screens first in another software
  - Sketch
  - Photoshop/Illustrator
  - Balsamiq
  - InVision Freehand, InVision Studio
- Pretty limited if you need more advanced features (like animation)

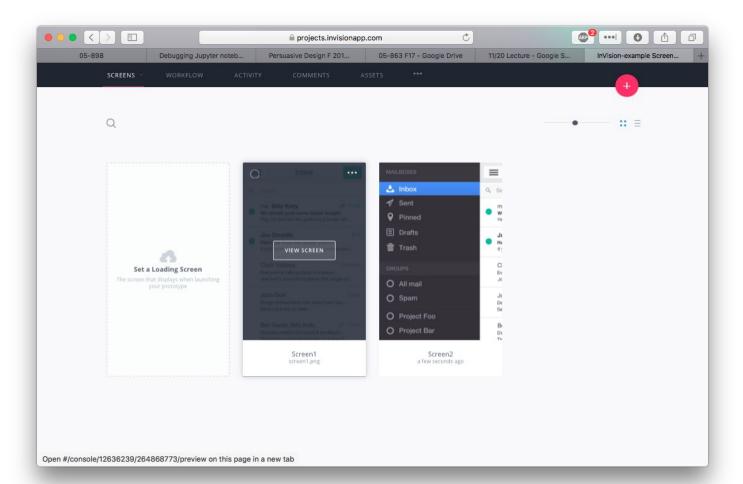


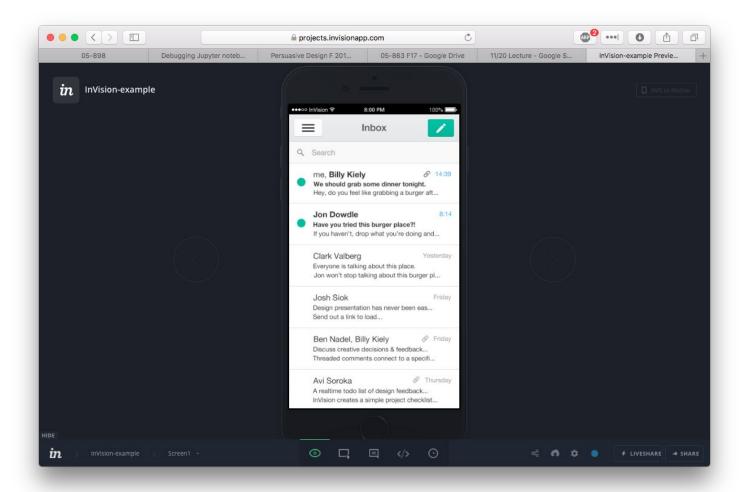


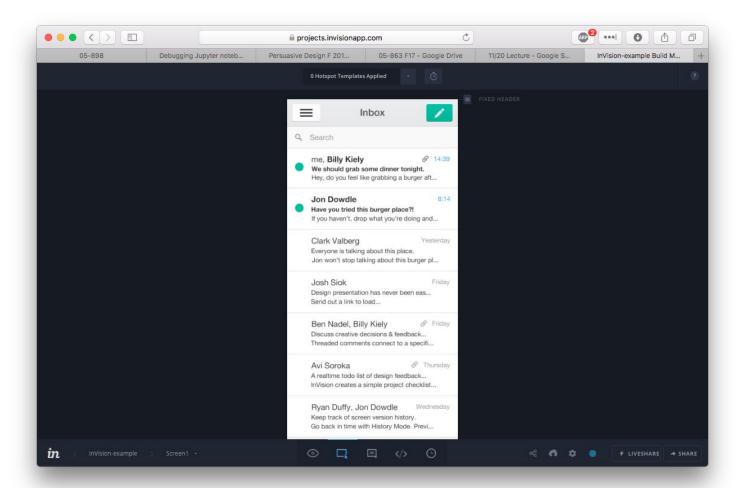


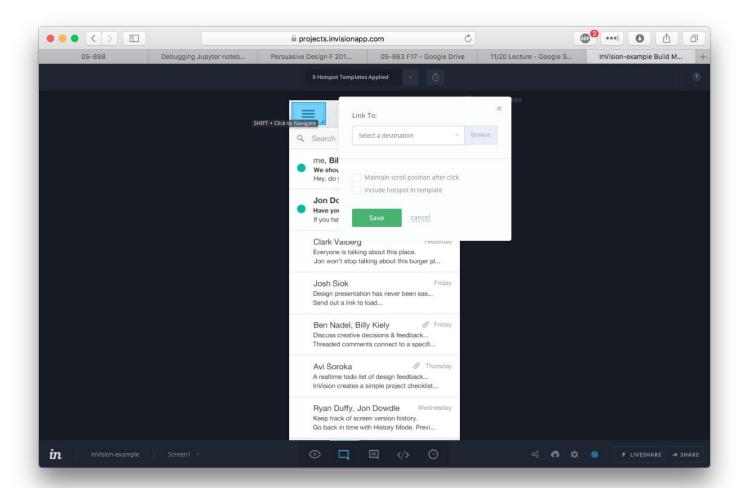


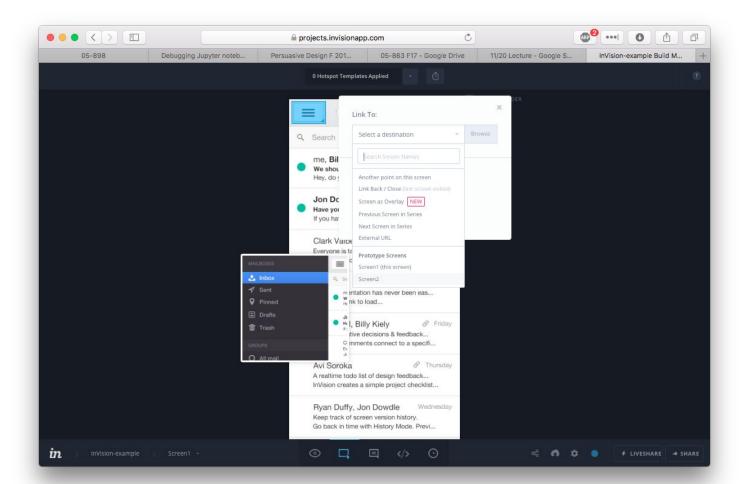


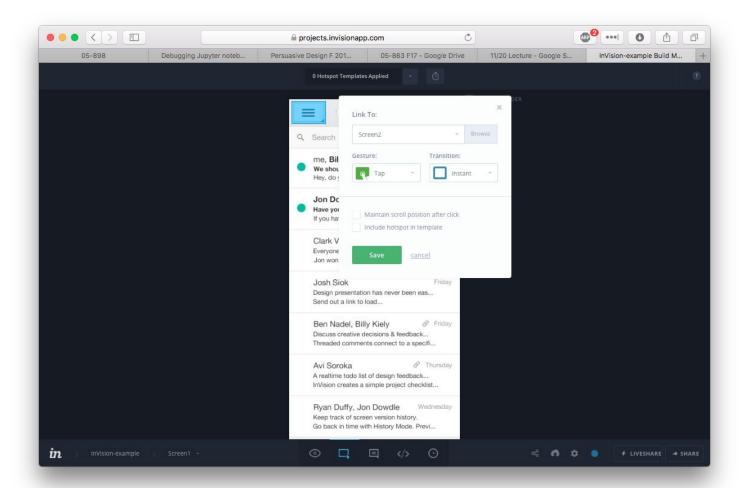


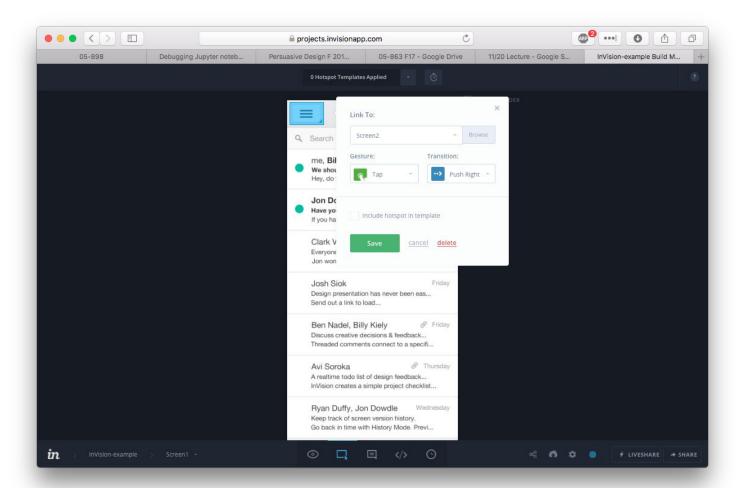


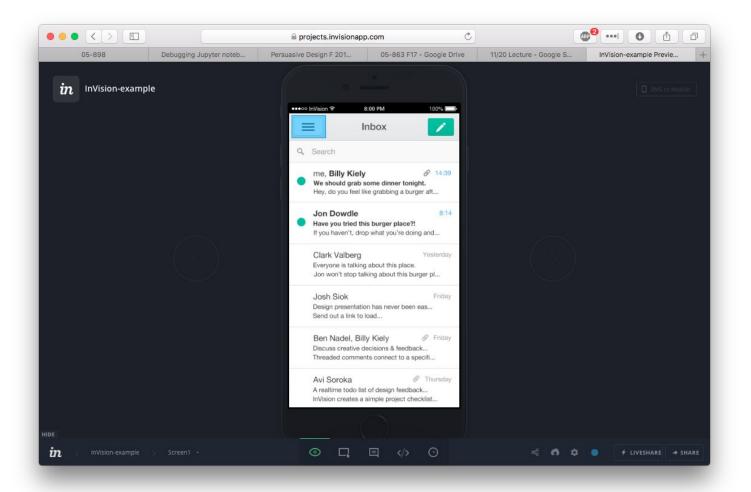


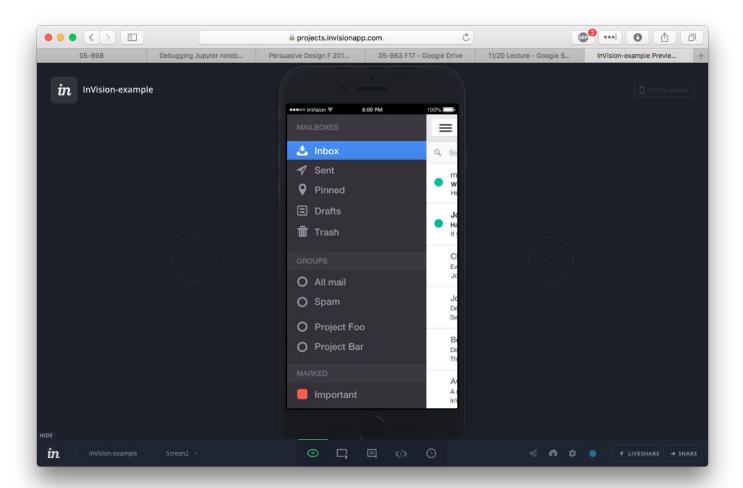


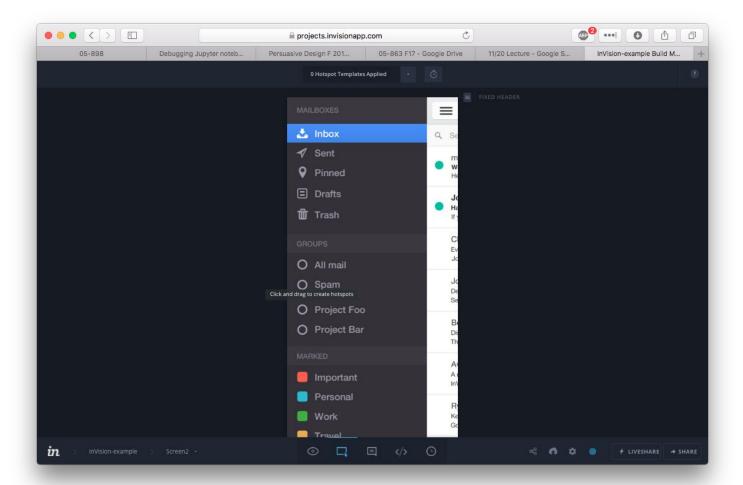


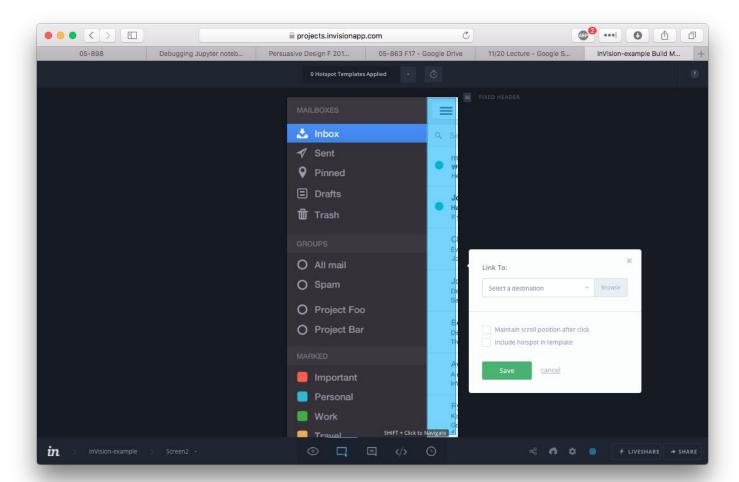


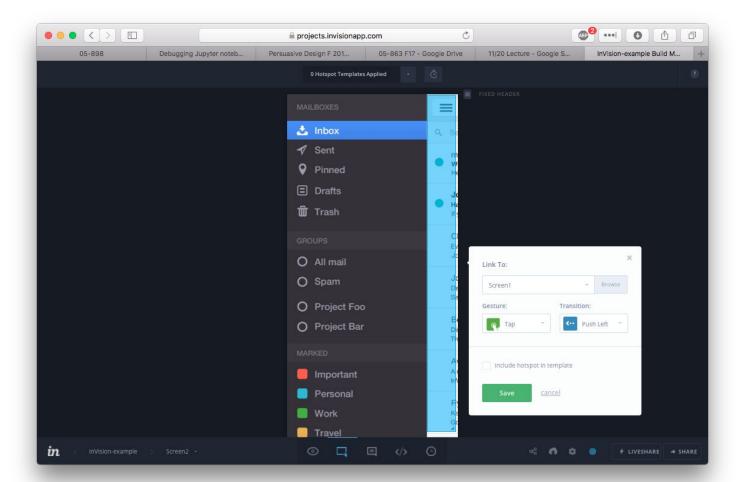


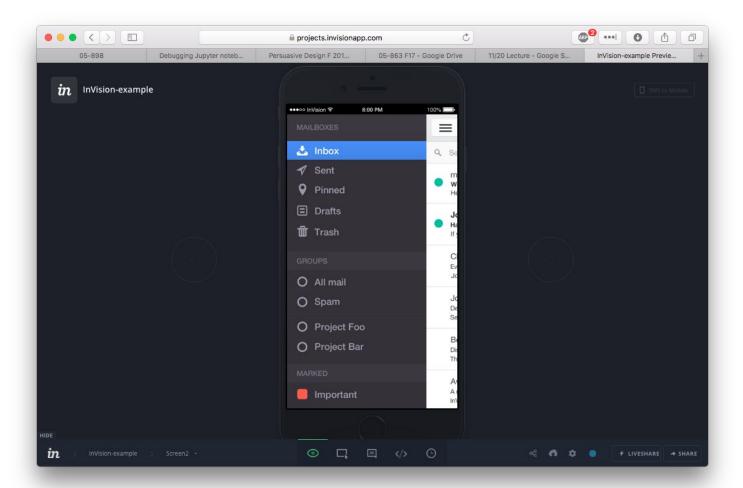


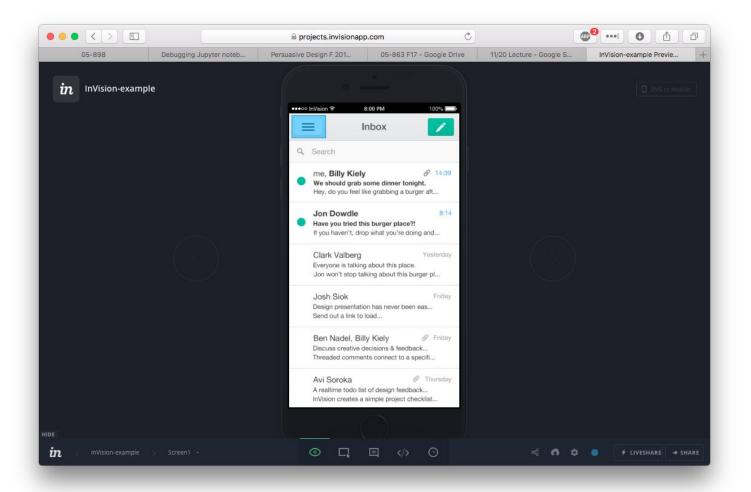












Example:

tinyurl.com/alex-invision

	Reasons to use	Reasons not to use	Recommended
Powerpoint	Most people have access, are familiar with tools		7/10
Adobe XD (Experience Design)	Drag 'n' drop linking (no coding required!) Can export still screens.	Part of Adobe CC, which is expensive after the trial runs out	9/10
Adobe Photoshop (Adobe Ps)	Great for complex visuals and hi-fi mockups	Can't link screens to each other, must export to Invision/XD	4/10
Axure	Good for prototyping complex interactions, Generates HTML file	Expensive after 30 day trial, Steep learning curve compared to other tools	7/10
HTML	Can be faster if you're used to coding	Animations challenging if unfamiliar with JavaScript	4/10
Balsamiq	Super simple by design. Great for lo-fi mockups.	Linking screens is pretty basic. You have to recreate hi-fi screens with another program	8/10
InVision	Industry standard, used by all of us regularly. Commenting tools.	Can't create screens in InVision, must import from Ps/Sketch	9/10

## Additional resources

