

Comp 388/422 - Software Development for Wireless and Mobile Devices

Fall Semester 2015 - Prototypes and Mockups

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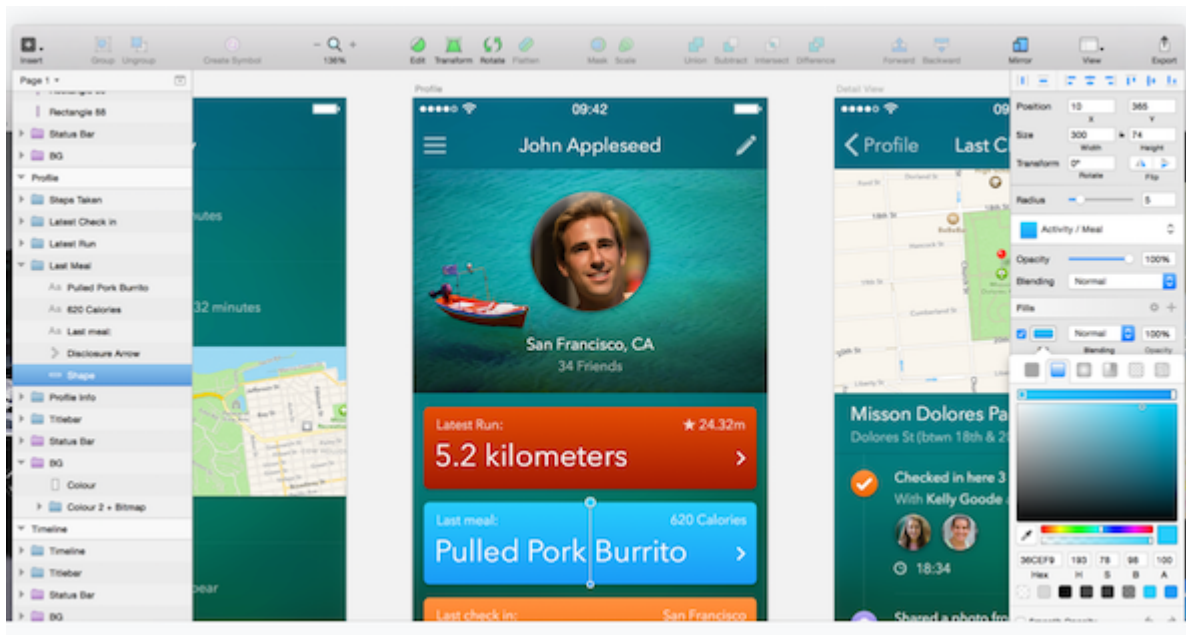
Application appearance

- prototype or mockup helps us plan and visualise an application's appearance and interface
 - could be high fidelity or low fidelity
 - choice often reflects state of the application and intended purpose of the mockup or prototype
 - eg: sales/funding demo vs design for development
 - perceptual difference between mockup and prototype
 - static mockups do not specify behaviour
 - rely upon additional interaction and behavioural specifications
 - prototype designed to demonstrate an application's intended behaviour
 - prototype perceived as an interactive piece of software in its own right
 - not considered fully functional, finished product
 - may only represent small components of the application
 - intended to show sample scenarios, interactions...

Hi-Fi mockups

- intended to act as a realistic approximation of an application's design
- allows us to represent and visualise the appearance of the user interface
 - often used for demonstration purposes, such as attracting funding, sales contracts...
- allows us to test colour schemes, design layouts, patterns...
- hi-fi mockups normally designed as static images with no actual interaction
- Adobe's Photoshop, Illustrator, In-Design...often popular tools for creating such mockups
 - offer detailed, relatively quick mockups to help visualise an application
- HTML, CSS...also popular options for creating quick, hi-fi mockups
 - can be used for a variety of application mockups

Hi-Fi mockup



Source - [Sketch](#)

Hi-Fi prototypes

- prototype intended to act as an interactive application
 - not intended as fully functional application
 - a concise working simulation
- prototype intended to create a rapid, working example of functional components of an app
- code often sufficient to simulate and replicate results for a given action and scenario
 - often will not include a database or persistent data storage
 - may simply simulate and demonstrate action of saving the data
- important to create a prototype of the interface and user interaction
 - not backend logic and implementation
- prototypes normally limited in their breadth and depth of functionality
 - should not be shallow in its implementation
 - demonstrate and evaluate an app's specified details in depth
 - shows careful, well-planned concept and design for each aspect of your app
- **NB:** high fidelity prototypes can be time consuming to produce correctly

Hi-Fi prototype

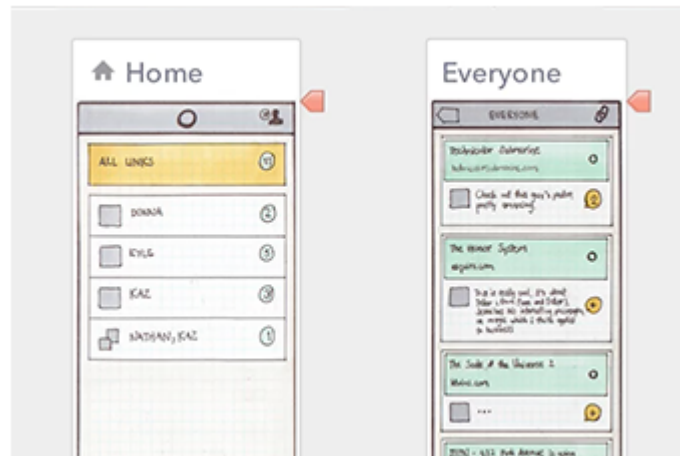
Framer

- many examples available at the Framer website
 - [OK Google](#)
 - [Android Lollipop](#)
 - [Carousel](#)
 - best demo at the moment...

Low-Fi mockups and prototypes

- low-fi mockups often seen as a **rough sketch** or outline
- often referred to simply as **wireframes**
- their simplicity can offer an inherent utility and speed of creation
- not trying to recreate the exact look and feel of an app
- often more interested in layout of visual components and elements
 - offers a quick reference point for further development
- easily sketched on paper, or use formal tools such as
 - Adobe's Photoshop, Illustrator...
 - The Gimp - an interesting open source alternative
 - could even use a simple tool like Google Drawings
 - many mobile drawing apps as well
- inherent benefit of low-fi mockups is quick creation
 - quick to modify and update
- low-fi prototypes often seen as a series of linked low-fi mockups
 - simple interaction leads to mockup sketches
 - again, not aiming for pixel accurate representations of app

Low-Fi mockup



Source - [Flinto](#)

Rapid prototyping

- provides quick examples of an application's design
 - helps promote and encourage development and iterative design
- iterative design helps encourage feedback early in the design process
 - continues throughout the design process as well
- we might consider the following as we develop our prototypes

- consider what needs to be prototyped early and often
- how much do we actually need to prototype at each stage?
 - consider the most common design elements and interaction
 - checking how something will work and not prototyping a full application
- work out how different places in the app are connected
 - connection between interactions, places...
 - consider the patterns that exist within the app
 - example pathways for a user through the app to achieve a given goal
- choose your iterations for prototypes
 - helps us avoid the temptation to prototype the whole application at once
- different fidelity for different iterative stages
 - low-fi mockups for initial design layout and elements
 - low-fi prototypes for many initial interactions
 - hi-fi prototypes as we approach the final product

A few example tools for mockups and prototypes

- HTML, CSS, JavaScript, [Bootstrap](#)...
- [Adobe Photoshop](#), [Illustrator](#)
- [Sketch3](#)
- [Proto.io](#)
- [Flinto](#)
- [framer](#)
- [mirror.js](#) (useful for Android)
- [Google Drawings](#)
- [XCode Interface Builder](#)
- [Apple's Keynote](#) (useful for iOS)