## Storyboard - Mock-Up, Wireframe, Flowchart

- Mock-up a lo-fi general design sketch in gray scale.
- Wireframe a more detailed design with shapes, images and text.
- Flowchart a guide of the application, a map.
- Interactive Simulation interactive prototype.



# Mock-up

- Initial visualization
- Sketch
- Schematic representation
- Low fidelity
- Greyscale
- No colors /very minimal
- No GFX
- No details

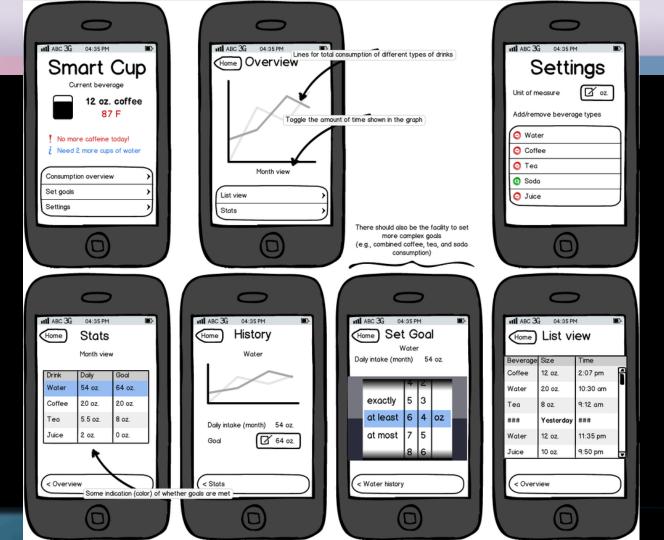


## Mock-up

- Mock-ups are used by designers mainly to acquire feedback from users about designs and design ideas early in the design process.
- Saves design and development time
- Avoids straying off track.



P3-Drinke - CS294-84: Interactive Device Design <u>http://husk.eecs.berkeley.edu/courses/</u> <u>cs294-84-fall12/index.php/P3-Drinke</u>



## Wireframe

Wireframe is a more detailed design with shapes, images and text. It represents the skeletal framework of a mobile app. It is a visual guide that shows all connecting pathways between each screen and where they can lead.

- The next step up from a general mock-up.
- A guide to understand the functionality of an app.
- Gives the design and programming team a clear description of GUI.
- Professional presentation.



## Wireframe

#### Wireframes focus on:

- The kinds of information displayed
- The range of functions available
- The relative priorities of the information and functions
- The rules for displaying certain kinds of information
- The effect of different scenarios on the display



## Wireframe

- More detailed images, shapes, icons and text
- All main screens and functions of the app
- Labeled actions of buttons, text fields and icons
- Low fidelity
- Greyscale
- No colors /very minimal
- No GFX



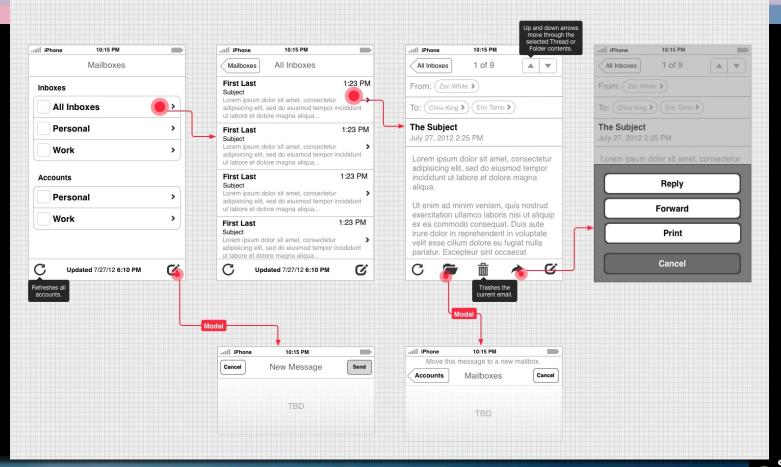
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	A-Z Doctor Salon	A-Z Doctor Salon	A-Z Doctor Salon
	Search	Dr. Doctor 1	Salon 1
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codrin.vasilache	Patient Full Name Details	Patient Full Name Details	Patient Full Name Details
	Patient Full Name Details	Patient Full Name Details	Patient Full Name Details
Password	Patient Full Name Details	Patient Full Name Details	Patient Full Name Details
*****	Patient Full Name Details	Patient Full Name Details	Patient Full Name Details
Lasta	Patient Full Name Details	Dr. Doctor 2	Salon 2
Login	Patient Full Name Details	Patient Full Name Details	Patient Full Name Details
	Patient Full Name Details	Patient Full Name Details	Patient Full Name Details
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		Last name	Some summary here
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Patient Monitoring Interface http://patientmo.wordpress.com

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Wireframe example by mobile velos http://velosmobile.com/2012/07/30/wireframing-with-omnigraffle-prove

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# Why Wireframe is Necessary?

Keeps design and concept on track Informs the team Minimizes number of revisions Helps avoiding confusion

Allows to:

- Improve your design
- Optimize the user experience
- Reduce the need for changes during development



## **Mock-Up and Wireframe Software Links**

Free/Small cost Mobile & Website UI

10Completely (or almost) Free Wireframe/Mockup Applications http://speckyboy.com/2010/01/11/10-completely-freewireframe-and-mockup-applications/

10 Free Wireframing and Mockup Tools http://speckyboy.com/2011/02/23/10-completely-freewireframing-and-mockup-tools/



Flowchart – a complete guide of the application, a map.

"Where can I go from this screen?"

- Used by design & programming teams
- Keeps various connections of each screen organized
- Visualizes user experience (UX)
- Displays all functions and examines further into the design.



#### **Flowchart**

- Arrows or some or lines signify pathways between all screens.
- Numbered steps and notes describing their functionality.
- The first screen is a splash or loading or an installation screen.
- The next screen is typically the main menu screen or home screen.
- More details are included (ex. numbered steps).





High-level application flowchart for a dictionary app from Excerpt from Designing the iPhone User Experience: A User-Centered Approach to Sketching and Prototyping iPhone Apps by Addison-Wesley

http://www.codeproject.com/ Articles/111949/Excerpt-from-Designing-the-iPhone-User-Experience

## **Common Resolution/Pixel Density List**



Android OS Ranges

OS



Apple iOS iPhone/iPod Retina iPhone4/iPod iPhone5 iPad2/Mini iPad3

**Resolution/Pixel Density** 160 x 240 ldpi 320 x 480 mdpi 480 x 800 hdpi 960 x 720 xdpi 320 x 480 pixels 640 x 960 pixels 640 x 1136 pixels 768 x 1024 pixels 1536 x2028 pixels



#### **Graphical User Interface (GUI)**

GUI is defined as an acronym for graphical user interface, a type of computer screen display in which commands are entered and functions are selected by means of icons, menus, a mouse, etc.



## **Graphical User Interface (GUI)**

Fields		
Buttons		
Bars		
Tabs		
Boxes		
Scrolls		
Navigational menus		
lcons		
etc.		



## **Graphical User Interface (GUI)**

- Simple
- Easy to navigate
- Clear
- Concise
- Responsive
- Consistent
- Attractive
- Efficient



"Don't annoy. It is so easy to piss people off on mobile. What you think is really cool might only be cool the very first time."

"Make it an experience. Make news fast, right and make it sing."

Beware of "Click here", "mouseover this", "see video below."

Mobile app design tips by David Ho, engineer of the mobile apps for the Wall Street Journal.



Use images with links

- Allow users to read the full headline
- Provide big targets for touch screen users
- Detect the user's device and serve the relevant version of the site
- Provide enough space between navigation options

Mobile usability tips from Jakob Nielsen by Graham Charlton

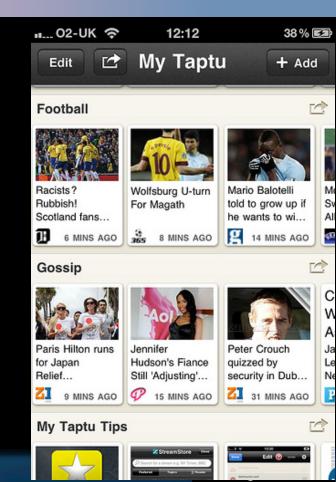


Use images with links

-Provides more visual impact

- -Helps users to quickly recognize an article
- that is interesting to them,

as they recognize their favorite actor, football player etc.



Allow users to read the full headline

- Provides a stronger 'information scent'.

People can get more of a clue of the subject of the article, and if the headline is well written, it should get more clicks.



Provide big targets for touch screen users

- Links need to be big enough so that users don't have to be too precise.

This is something that lets down the Guardian's iPhone app and mobile site. Some of the **links are too small and too close together**, making it easy to click the wrong link:

📶 02-UK 奈	13:17	54% 🚁
Back	football	
No comments		
Related subject	ts	
Sport		>
World news		>
Race issues		>
Football		>
Brazil		>
Scotland		>
Arsenal		>
UK news		>
Scotland		>

guardian.co.uk © Guardian News and Media Limited

Detect the user's device and serve the relevant version of the site

-Sending mobile users straight to the optimized version of the website make it easier for users.

-If the mobile and desktop versions have different URLs, then this makes it harder for users to fin the version they want.



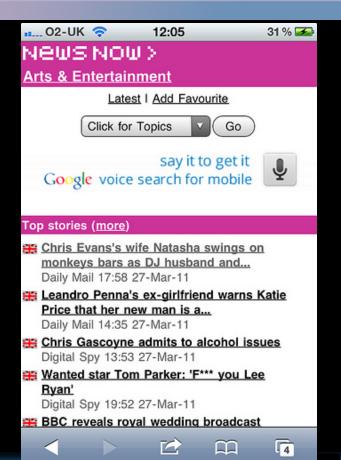
Provide enough space between navigation options

- Misplaced clicks can be a major source of frustration for mobile users, as they mean time wasted loading the wrong page and being forced to backtrack.

-If there is **clear space between links and menus**, then users are less likely to make these mistakes.



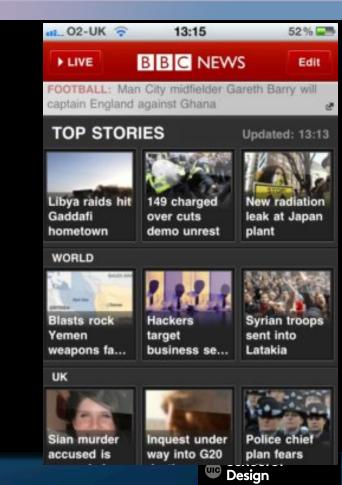
the close proximity of the links on the mobile site makes it harder to be accurate for touch screen users.



🙂 Design

Navigational links at the top of the page are far enough apart, while the target for users to click and select an article is larger.

- provide more of an 'information scent'
- add a brief summary of each story
- reduce the number of articles displayed on the first screen to allow more room for this information.



## **GUI Design Tips**

Clear, simpler and appealing information presentation Uses shades and hues of two or three main colors

Organized layout

Sufficient space between elements for touch display navigation Moderate use of GUI elements (scrolls, tables, icons, etc.)



#### Examples (E. Tufte's Swiss Mountain Map video)

Swiss Mountain Map video from Edward Tufte's webpage <u>http://www.edwardtufte.com/bboard/q-and-a-fetch-msg?</u> <u>msg\_id=0003vq</u>

