CMSC 128 Laboratory Handout 4
Wireframing, Prototyping and Devtools

Wireframe
- a two-dimensional illustration of a page's interface that specifically focuses on space allocation and prioritization of content, functionalities available, and intended behaviors
- *"blueprint for design"*
- typically does not include any styling, color, or graphics
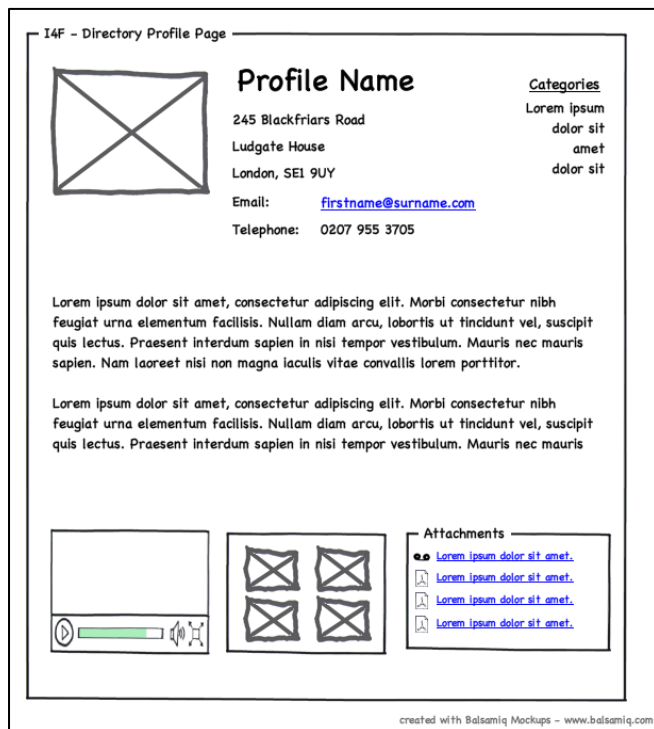- helps establish relationships between various templates of a system

Figure 1. Wireframe Example

Why use wireframes?
- They connect the underlying conceptual structure (or information architecture) to the surface (or visual design) of a website or mobile app.
- visual representations of an interface that is used to communicate the following details:
  - *Structure* – How will the pieces of this site be put together?
  - *Content* – What will be displayed on the site?
  - *Informational hierarchy* – How is this information organized and displayed?
  - *Functionality* – How will this interface work?
  - *Behavior* – How does it interact with the user, and how does it behave?

Things to remember in creating wireframes
- *Do not use colors.*
- *Do not use images.* Use a rectangular box sized to dimension with an *"x"* through it instead.
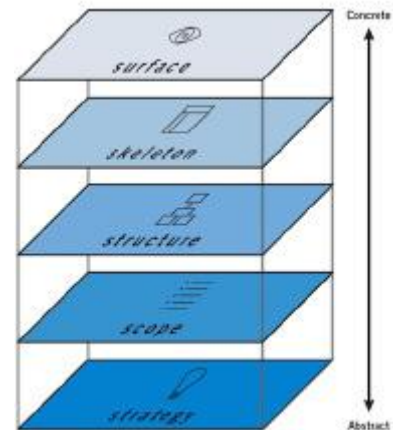- *Use only one generic font.*

Figure 2. The Elements of User Experience

Important Elements of Wireframes
- Logo
- Search field
- Breadcrumb
- Headers, including page title as the H1 and subheads H2-Hx
- Navigation systems, including global navigation and local navigation
- Body content
- Share buttons
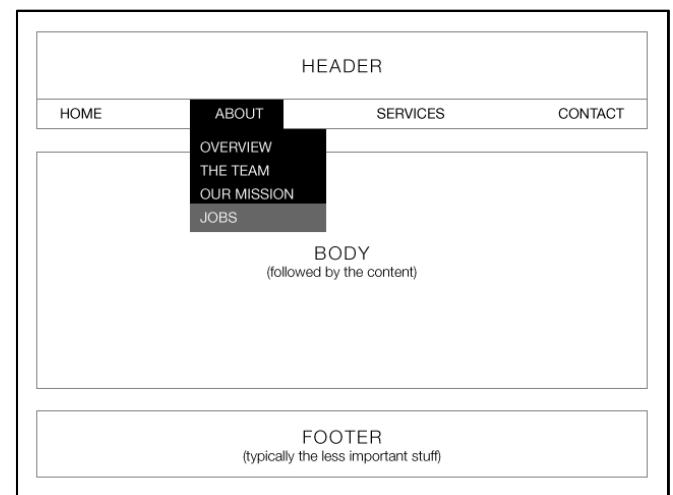- Contact information
- Footer

Figure 3. Wireframe containing various states of menu behavior

Developers use wireframes to:
- get a more tangible grasp of the site's functionality
- get a clear picture of the elements that they will need to code

Some Wireframing Tools
http://mashable.com/2010/07/15/wireframing-tools/

Prototyping
- creating a demo of a new system
- essential for clarifying information requirements
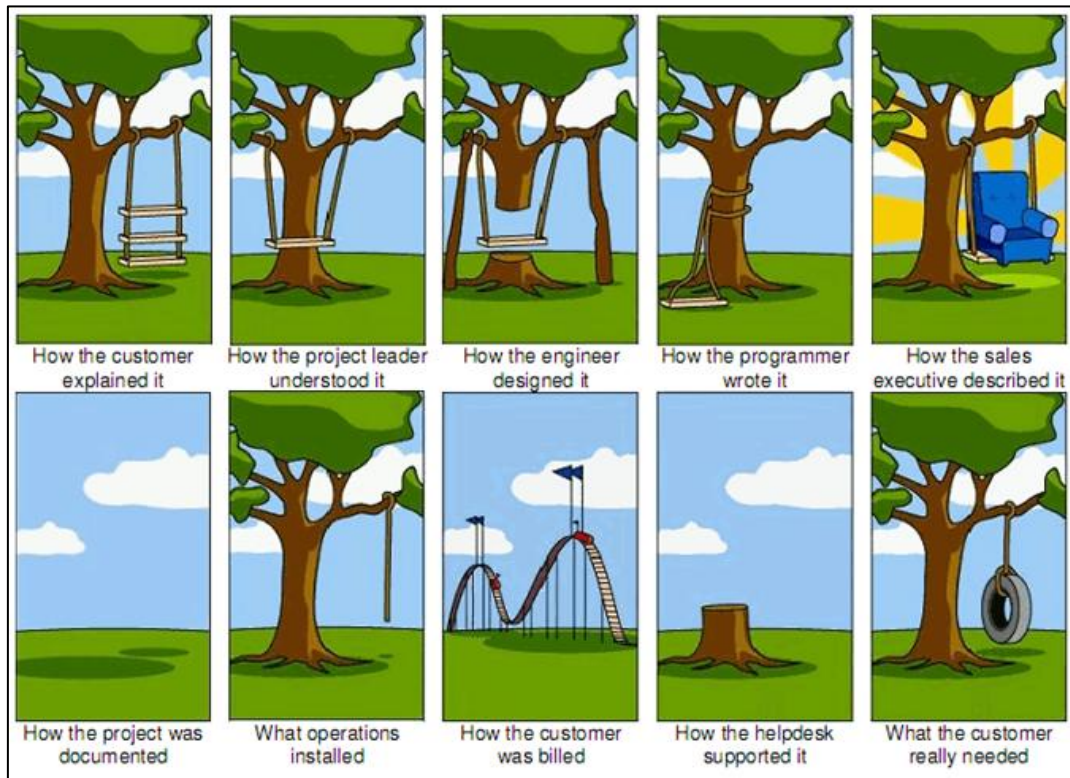- design of a system (functional specifications) must be finalized before the system can be built

Figure 4. Product Management Tree Swing

Five Reasons to Use Prototypes
1. Communications and collaboration
2. Gauge feasibility while reducing waste
3. Sell your idea
4. Text usability earlier
5. Set your design priorities

Images from:
- http://www.flickr.com/photos/doos/3931846833/
- Jesse James Garret: The Elements of User Experience
- http://www.tamingdata.com/2010/07/08/the-project-management-tree-swing-cartoon-past-and-present/

References
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- Cao, J et. al. (2014). *The Ultimate Guide to Prototyping: The best prototyping methods, tools, and processes.* Retrieved February 16, 2015 from: https://www.uxpin.com/.
- Lim, W. (2012). *A Beginner's Guide to Wireframing.* Retrieved February 13, 2015, from: http://webdesign.tutsplus.com/articles/a-beginners-guide-to-wireframing--webdesign-7399.
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