Understand your users

Translate needs into functionalities

Create design ideas

Prototype design

Test & Evaluate

Build final version
Create Design Ideas

- Static representations of the product
  - Sketches
  - Wireframes
  - Mockups

Visualization

Prototype Design

- Prototypes - interactive design model of the product
  - Low-fidelity
  - High-fidelity

Testing and Evaluation
Prototype Design

Prototypes - interactive design model of the product

- Low-fidelity
- High-fidelity

Tangible & Testable Artifacts

- Low-tech
  - Partial functionality
  - Simulated interaction

- High-tech
  - “Full” functionality
  - True interaction
Prototype Design

High Fidelity Prototyping Tools

- Interactive
- Realistic system response
- Content and workflow details
- (Almost) Full fidelities
- Less human errors
- Allows broader usability testing
Prototype Design

High Fidelity Prototyping Tools

Implement by hand
- Whatever suits your purposes and platforms:
  - jQuery, Bootstrap, AngularJS, etc.
  - Android Studio, Xcode, IntelliJ IDEA, Apache Cordova, React Native, etc.
- Takes longer
- Buggy

Prototyping Software
- Faster
- Sharing & comments
- Outside product
- Limited options
- InVision (good with mockups)
- JustinMind (has widgets)
- Axure (not mobile friendly)
- Mockplus (pre-designed interaction components)
Prototype Design

Designing User Interface

Elements & characteristics
- Color Perception
  - The Von Restorff effect
  - Gestalt Principles
  - Fitts’ Law
- Shape Perception
- Visceral Reaction Triggers

Elements composition
- Rule of Thirds
- Types of vision
- Free space

Spatial organisation

Information processing
- Dual-coding theory
- Patterns matching
- Social & Emotional info

Interaction
- Manipulation
- Locomotion
- Conversation
**Color Perception**

- **Red** - bold, contemporary, exciting, passionate, young
- **Orange** - social, friendly, affordable, happy, confident
- **Yellow** - optimistic, clear, logical, lightweight, playful
- **Green** - peaceful, growing, caring, fresh, healthy, natural
- **Blue** - trustworthy, secure, strong, honest, stable, calm
- **Purple** - glamorous, creative, imaginative, nostalgic, feminine
Logo examples:

![Disney](https://dribbble.com/)
![Olympic Rings](https://guardianproject.info/)
![MasterCard](https://www.slashgear.com/)

Interface examples:

![Logo examples](https://dribbble.com/)
![Interface examples](https://guardianproject.info/)
![Interface examples](https://www.slashgear.com/)
Logo examples:

https://www.pinterest.com/

http://zoominapps.com/law-app/

http://www.flightswatcher.com/

http://www.mitsubishicomfort.com/
Logo examples:

Interface examples:

Logo examples:

[Images of logos for IBM, Nestlé, University of Guelph, and Shoppers Drug Mart]

Interface examples:

https://designmodo.com/weather-mobile-apps/
http://techaeris.com/
https://jessteesang.wordpress.com/2014/09/17/app-review-yplan/
http://www.tressarandolph.com/portfolio/project05.php
Logo examples:

[Images of logos: Cisco, SoundCloud, ELLE, Adidas, Viracon]

Interface examples:

[Images of smartphone interfaces: fitness app, productivity app, exercise app, fashion app]
Interaction
Information processing
Spatial organisation
Elements & characteristics
Composition
Elements

Shape Perception

Squares - stability, strength, power, professionalism, efficiency

Circles - community, friendship, relationship, unity, trust

Horizontal lines - community, tranquility, flow, continuity

Triangles - power, science, law, stability, strength

Vertical lines - power, masculinity, ambition, aggression, strength
Visceral Reaction Triggers

Stimuli that cause instinctive and emotion-based, subconscious, bodily response

- Food
- Survival
- Pleasure
- Opportunities

Images, colors, texts, shapes, etc.
The Von Restorff Effect

== Isolation Effect. Items that stand out from their peers are more memorable

- Use meaningful and helpful contrasts
- Use color, shape, position and texture for accents
- Be consistent with accents and accentuated content

The Button Color A/B Test: Red Beats Green