CSC 473: Website Design

Lecture 4 - UI

Questions?

- Pin the jira, github, postman links to your project in your slack channel
- Any questions about the last lecture or HW?
- There are only a few teams using GeekBot. What's going on?
    - This is part of your Agile grade on your final project rubric!

What are some properties of websites you like?

What makes you go back to a site/app?

What makes you go delete an app?

Human Computer Interaction

Human-Computer Interaction (HCI)

Human–computer interaction studies the communication between a human and a machine

User satisfaction is paramount

HCI Factors

- Communication
  - How does the user communicate with your website? Read, write, navigate, listen, watch, etc
- Graphic design
  - Visual communication and problem-solving through the use of typography, photography, iconography and illustration
- Linguistics
  - Language form, meaning, and context.
  - Are you conveying information clearly?
- Social sciences
  - Individuals' relationship to their societies, the consequences of difference, and other aspects of human social action.
  - What’s your user’s relationship to your website?
- Cognitive psychology
  - Attention, language use, memory, perception, problem solving, creativity, and thinking
- Social psychology
  - How the thoughts, feelings, and behaviors of individuals are influenced by the actual, imagined, and implied presence of others

Poor Design

Are you trying to change common/ingrained behavior?

Is there a large learning curve to use your system?

Is your communication confusing? Are you clear, concise, & consistent?

Bad HCI can cause unintended consequences.

- Nuclear meltdown
- Crashing planes
- User deletes your app

UI/UX

What are they?

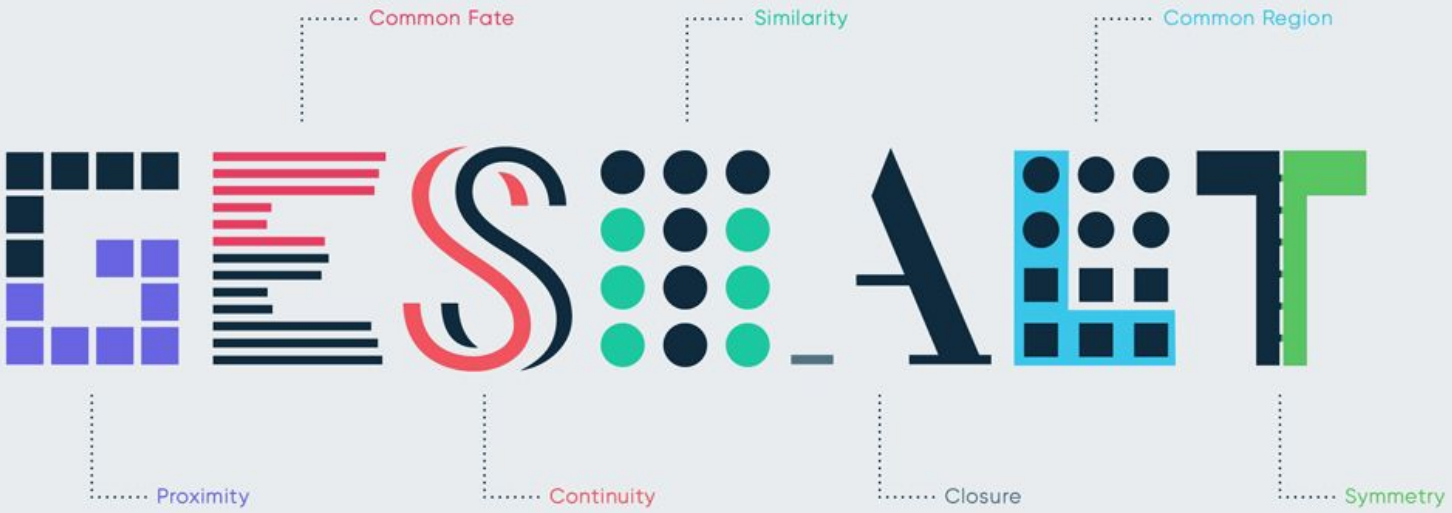
UI/UX

UI - User Interface

UX - User Experience

User Interface

Everything that the user can see and interact with. The point of human-computer interaction.


Common Fate
Similarity
Common Region
Proximity
Continuity
Closure
Symmetry

Gestalt principles - UI

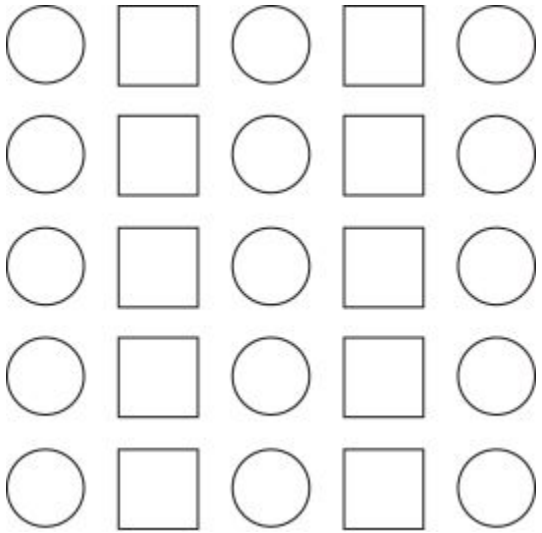
Our minds group and organize elements in predictable ways

- Proximity
  - Group elements when they are close to each other
- Similarity
  - Group elements that look like each other
- Continuity
  - Group elements that are aligned with each other
- Symmetry
  - Made up of exactly similar parts facing each other or around an axis
- Closure
  - The status of tasks. Whenever a product needs a little more time to complete a task, loaders inform us that the product is still working in the background
- Common Region
  - Group elements when they are located within the same closed region
- Common Fate
  - Objects are perceived as lines that move along the smoothest path

Similarity

What are the groups?

Shape

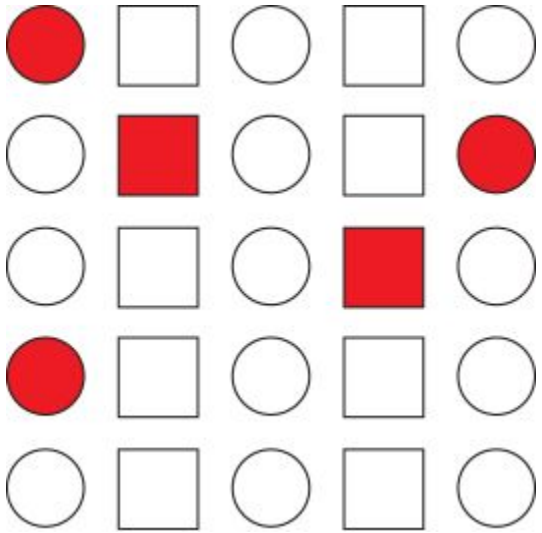


Similarity

What are the groups?

Similarity is particularly affected by color and can *override* other attributes

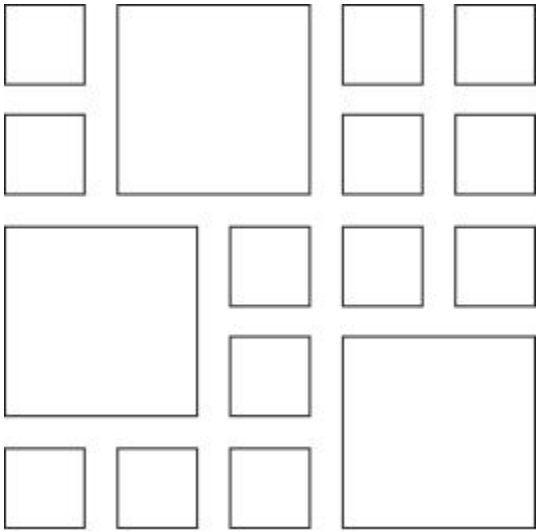
Here override the example of similarity in shape by adding color



Similarity

What are the groups?

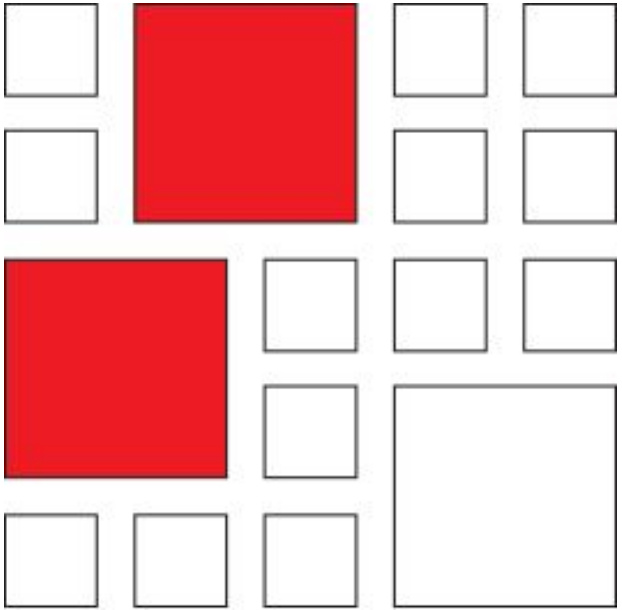
Size



Similarity

What are the groups?

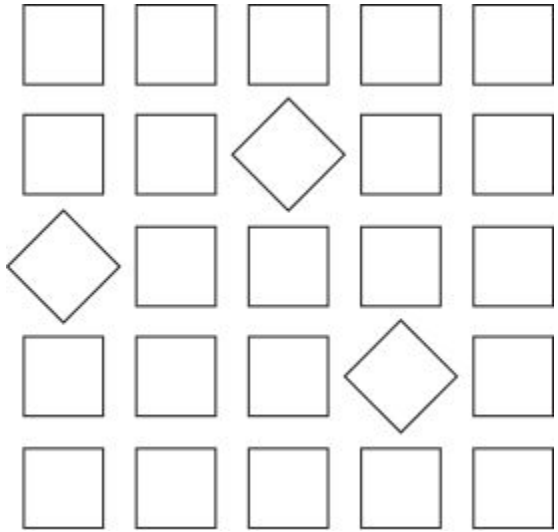
Here color overrides size



Similarity

What are the groups?

Orientation



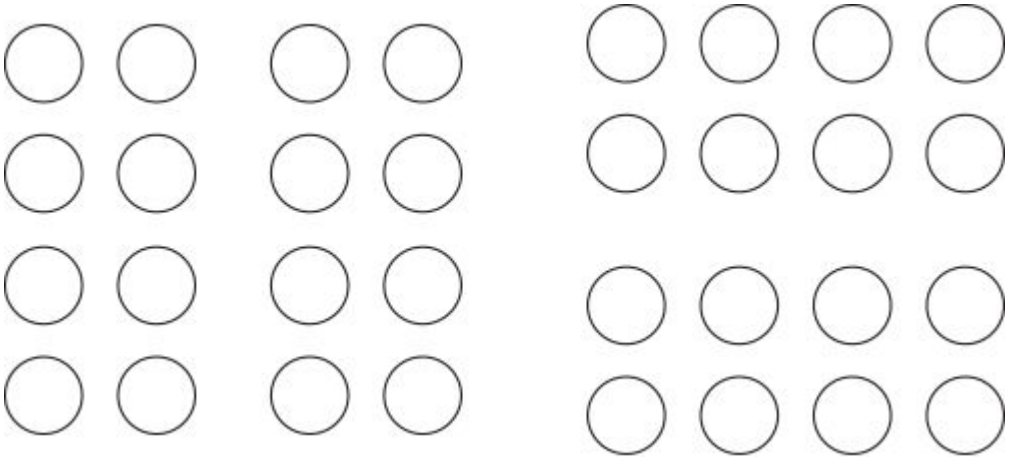
Similarity

- Color
- Shape
- Size
- Orientation

Proximity

What are the groups?

White space

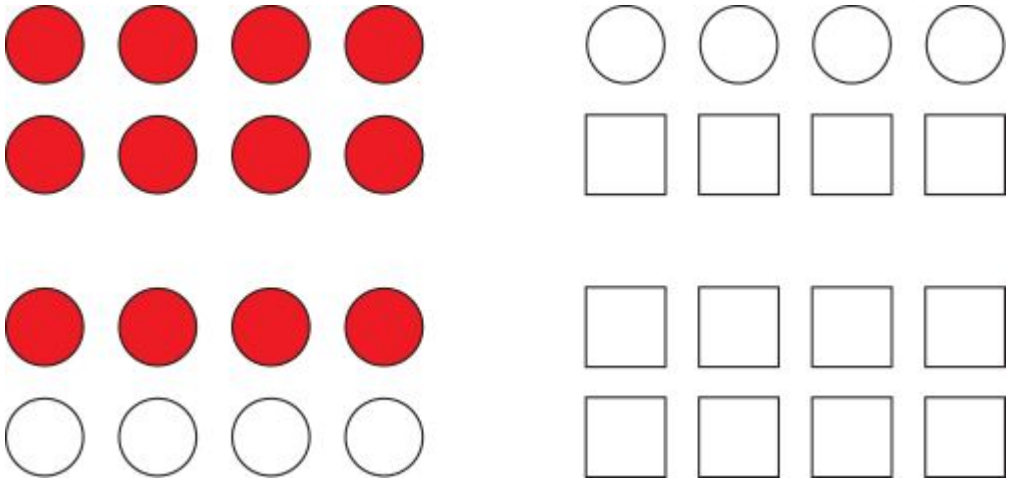


Proximity

What are the groups?

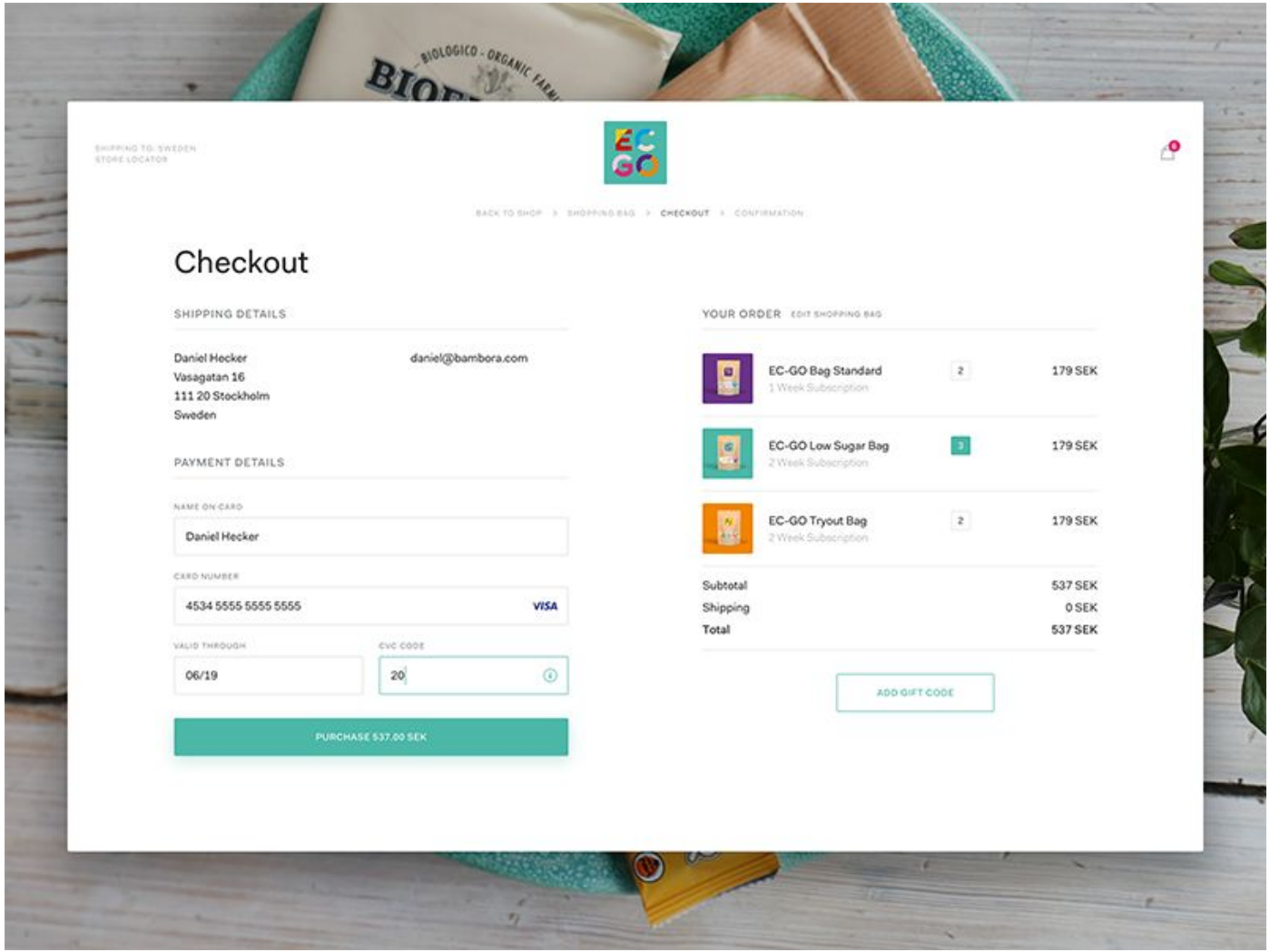
Proximity overrides similarity principles of color & shape

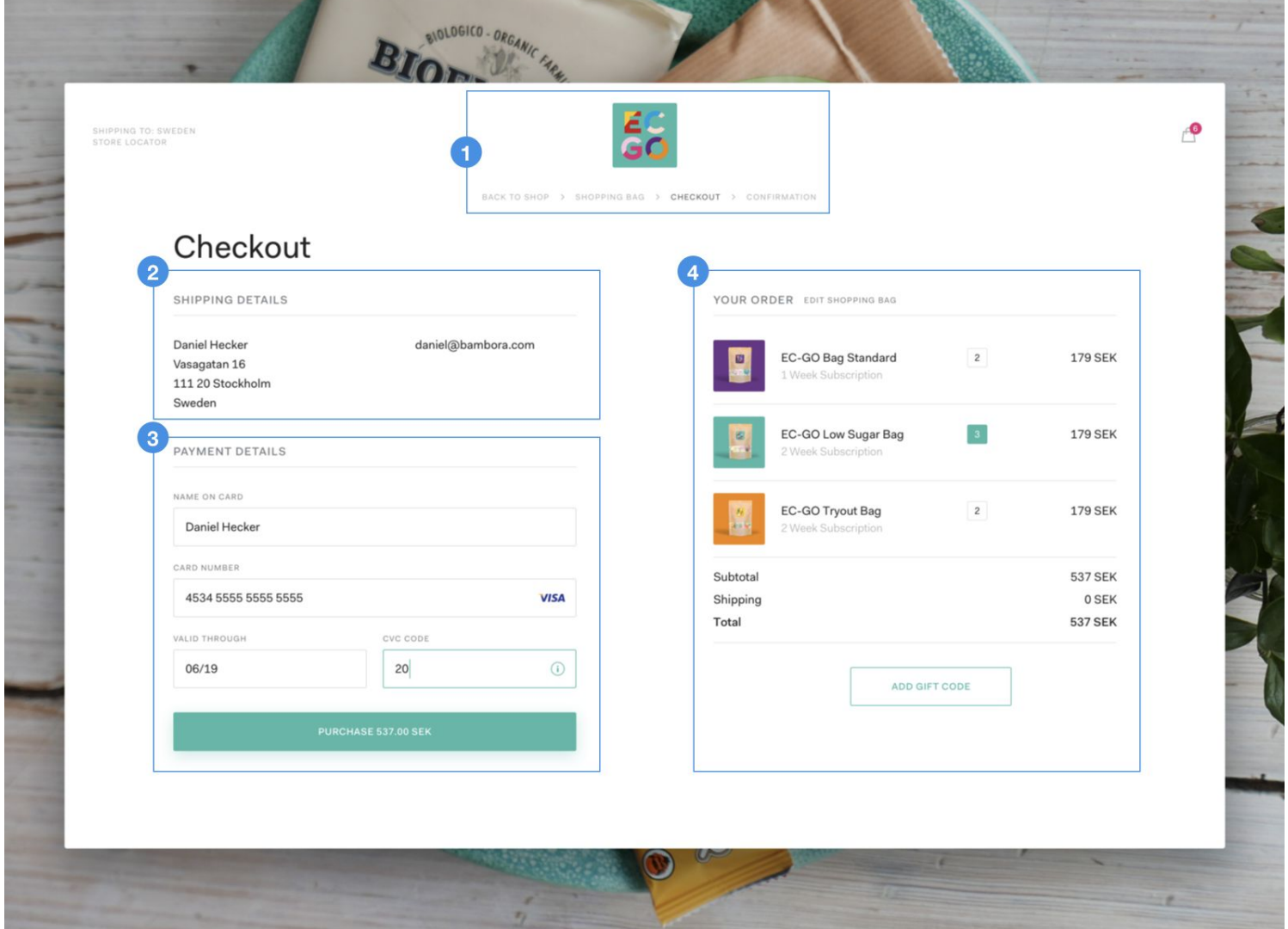
Each grouping is still perceived as a separate element.



Proximity

What are the groups?

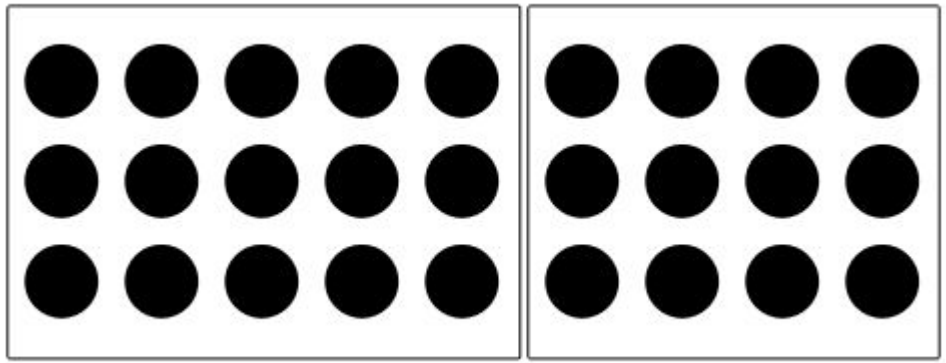



SHIPPING TO: SWEDEN
STORE LOCATOR
1
BACK TO SHOP > SHOPPING BAG > CHECKOUT > CONFIRMATION
Checkout
2
SHIPPING DETAILS
Daniel Hecker
Vasagatan 16
111 20 Stockholm
Sweden
daniel@bambora.com
3
PAYMENT DETAILS
NAME ON CARD
Daniel Hecker
CARD NUMBER
4534 5555 5555 5555
VISA
VALID THROUGH
06/19
CVC CODE
20
PURCHASE 537.00 SEK
4
YOUR ORDER
EDIT SHOPPING BAG
EC-GO Bag Standard
1 Week Subscription
2
179 SEK
EC-GO Low Sugar Bag
2 Week Subscription
3
179 SEK
EC-GO Tryout Bag
2 Week Subscription
2
179 SEK
Subtotal
537 SEK
Shipping
0 SEK
Total
537 SEK
ADD GIFT CODE

Common Region

What are the groups?

Adding borders or other visible barriers creates a separation between groups of objects—even if they have the same proximity, shape, color, etc

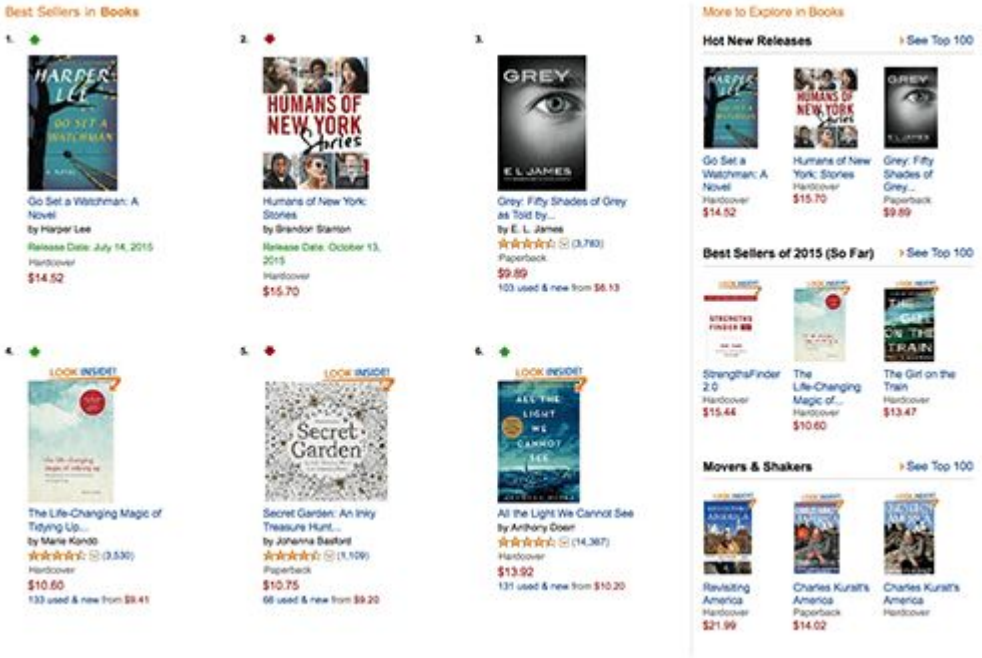


Similarity, Proximity & Common Region

Grouping by proximity can also be combined with similarity to create stronger relationships.

Grouping by proximity and similarity in size causes us to perceive two separate groupings

Assigns more prominence to the left group



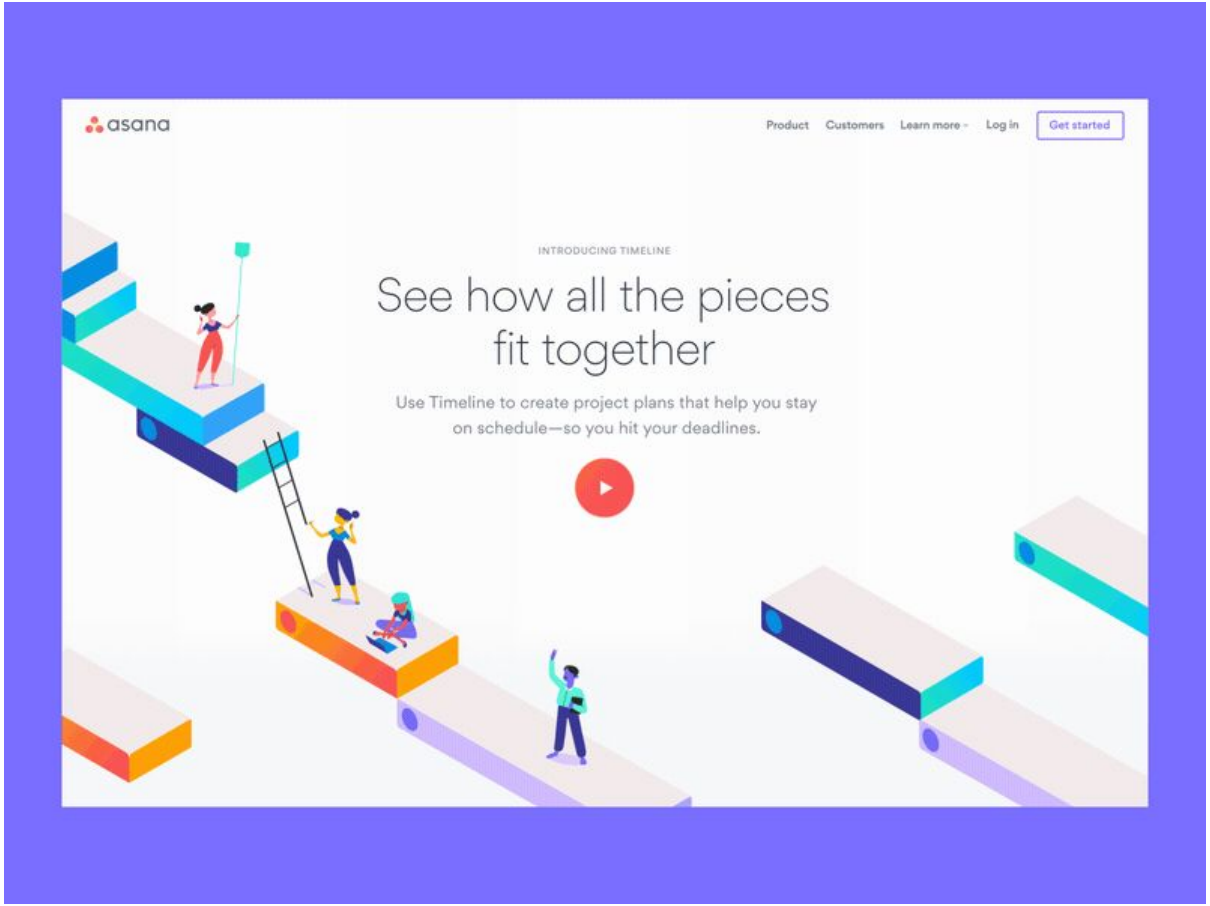
Continuity

What are the groups?

Your eyes like to travel along lines.

Our mind has a tendency to follow paths and group elements that are aligned with each other.

Elements that are arranged on a line or curve are perceived to be more related than elements not on the line or curve



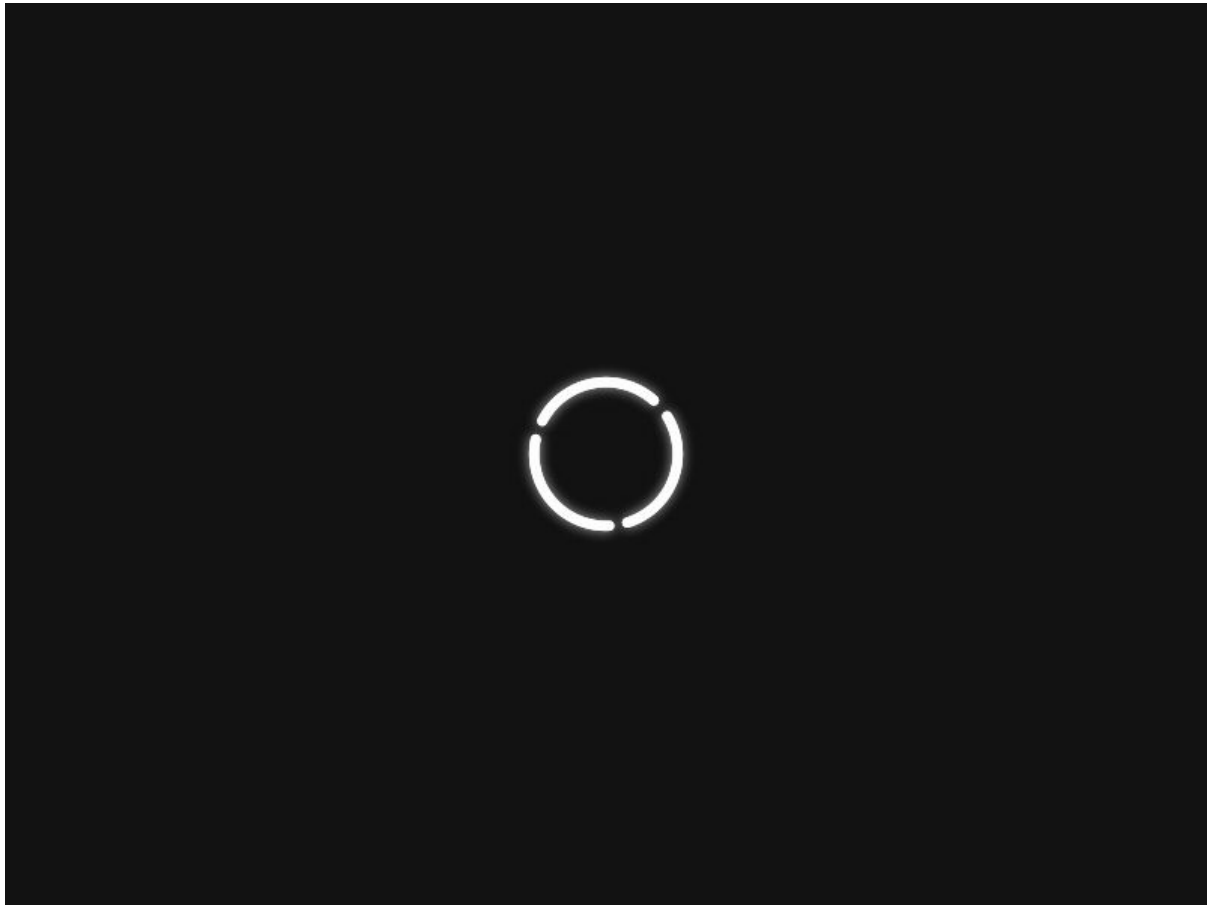
Continuity

Customers Who Bought This Item Also Bought
Page 1 of 20
CROSSING THE CHASM
Crossing the Chasm, 3rd Edition: Marketing and Selling Disruptive Products
› Geoffrey A. Moore
72
Paperback
$12.35 Prime
THE LEAN STARTUP
ERIC RIES
The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to
› Eric Ries
1,062
Hardcover
$16.66 Prime
Innovator's Dilemma
The Innovator's Dilemma: The Revolutionary Book That Will Change the Way
› Clayton M. Christensen
209
#1 Best Seller in Industrial Management...
Paperback
$10.06 Prime
THE INNOVATOR'S SOLUTION
The Innovator's Solution: Creating and Sustaining Successful Growth
› Clayton M. Christensen
22
Hardcover
$18.33 Prime
How Will You Measure Your Life?
› Clayton M. Christensen
583
Hardcover
$15.86 Prime

Closure

Since a whole is easier to process than multiple parts, we'll fill in the gaps or connect the dots to complete implied shapes or images

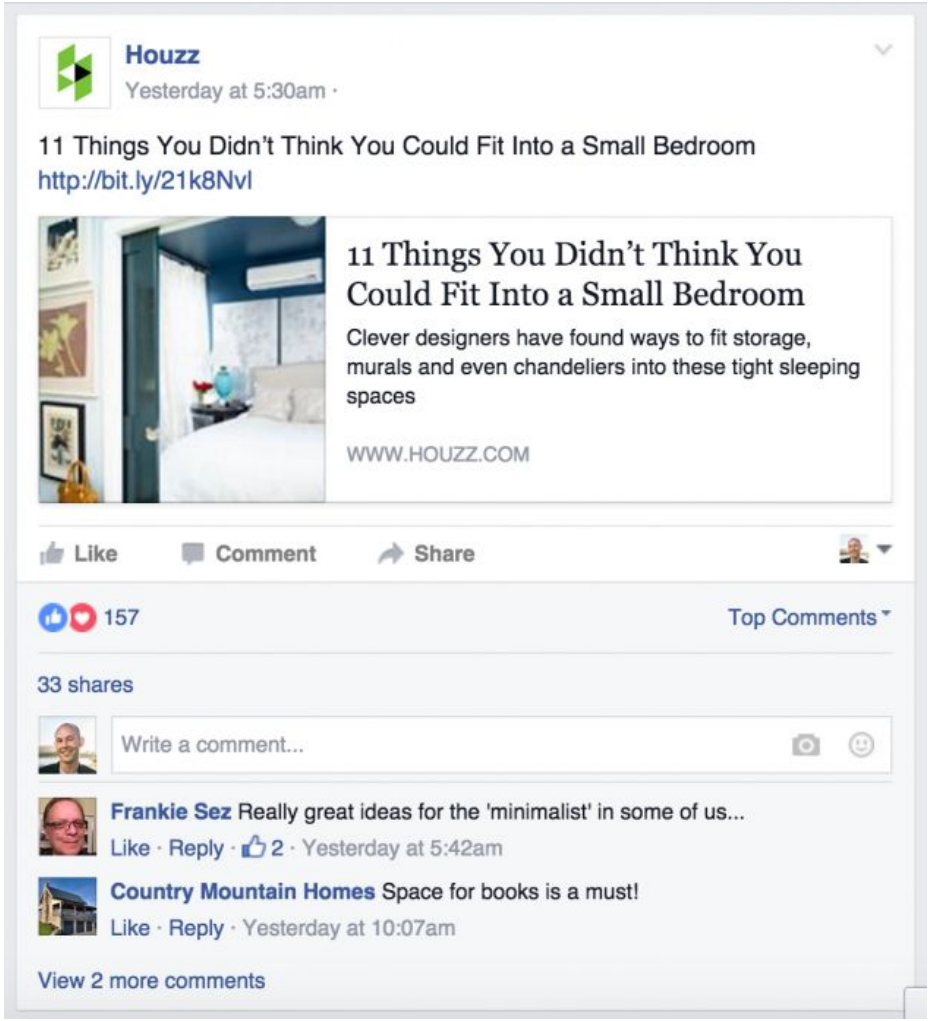
The lines never really touch each other and yet we see a circle



Common Region

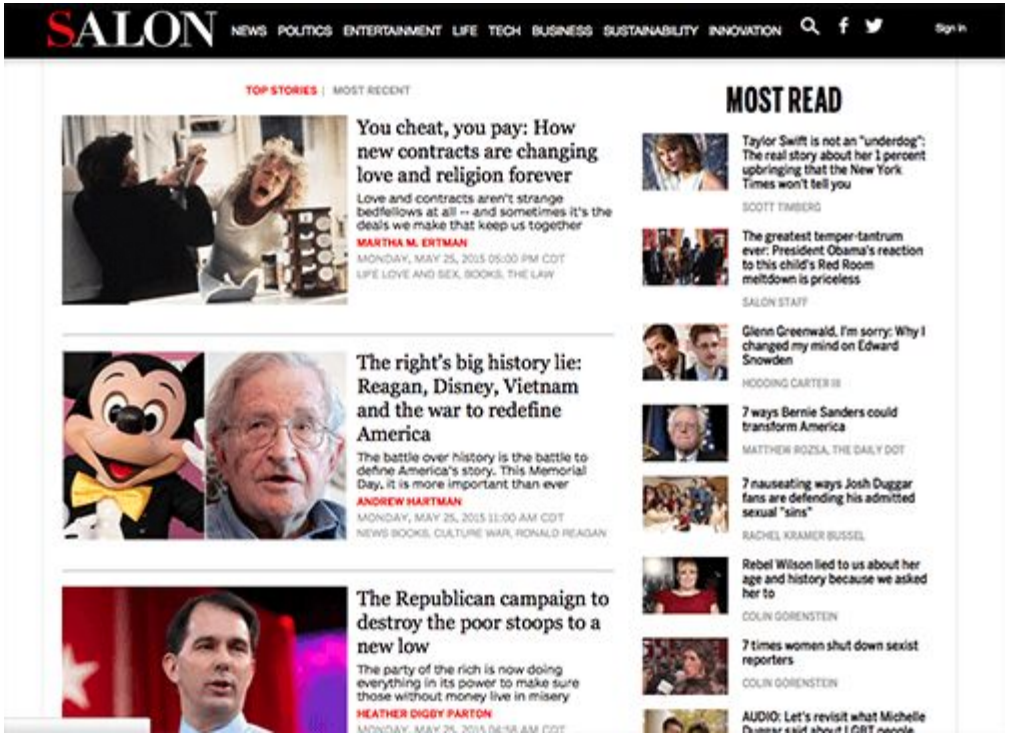
Example from Facebook

Comments, likes, and interactions are associated with this specific post—and not the other posts surrounding it



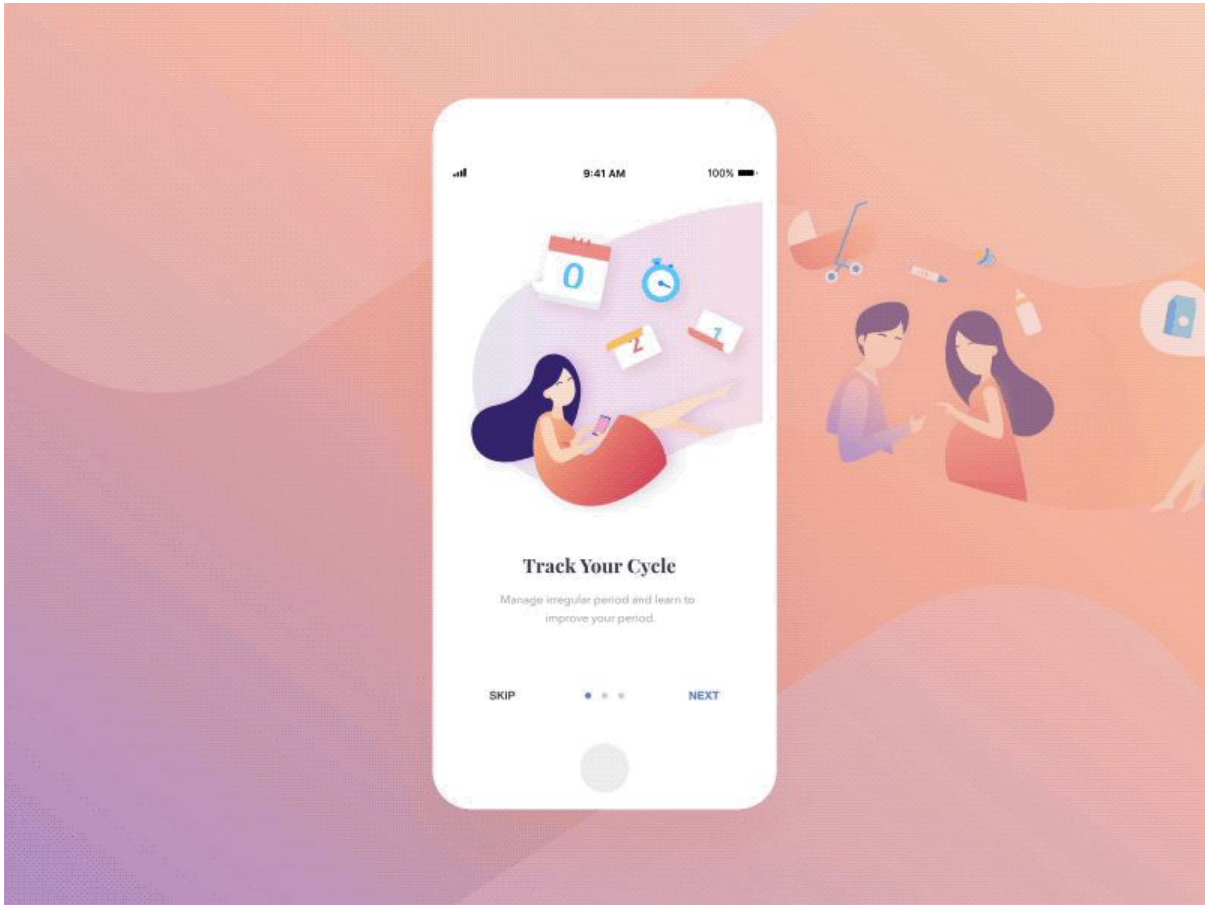
Altogether

What are the groups?



Altogether

What are the groups?



UI - Keep in Mind

- Color scheme
- Typefaces
- Iconography
- Layout

Responsive UI

Responsive web design responds directly to the user's behavior and environment based on screen size, platform, and orientation

SPORTS

Search within Sports

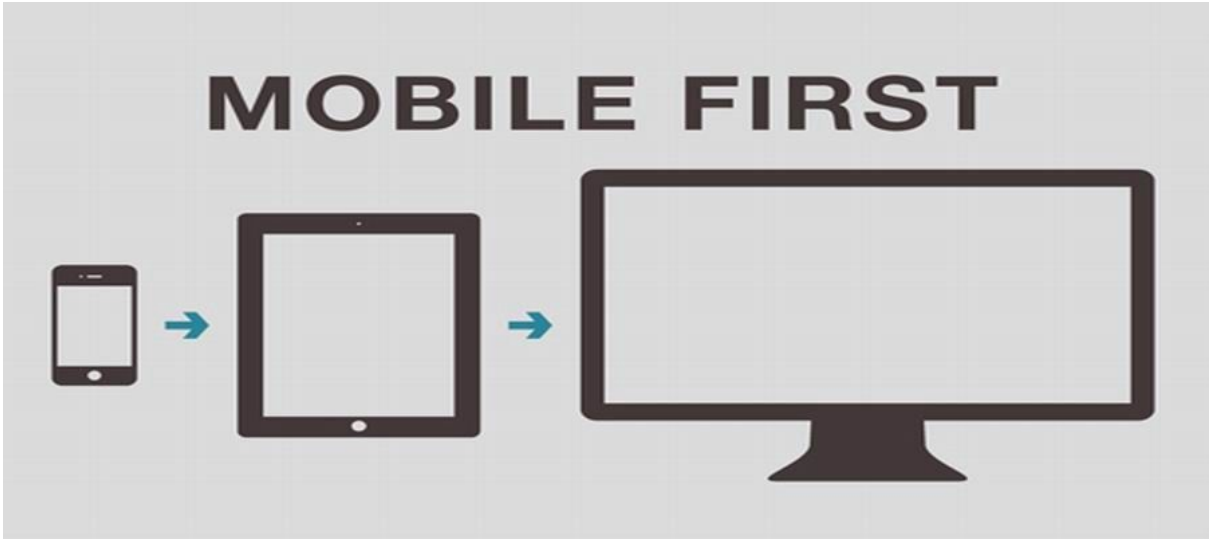
MANCHESTER UNITED ROCKED AS REAL MADRID PREPARES BID

Jose Mourinho has been strengthening his squad this summer. Now, there are fears it could lose one of its star players.

Mobile First

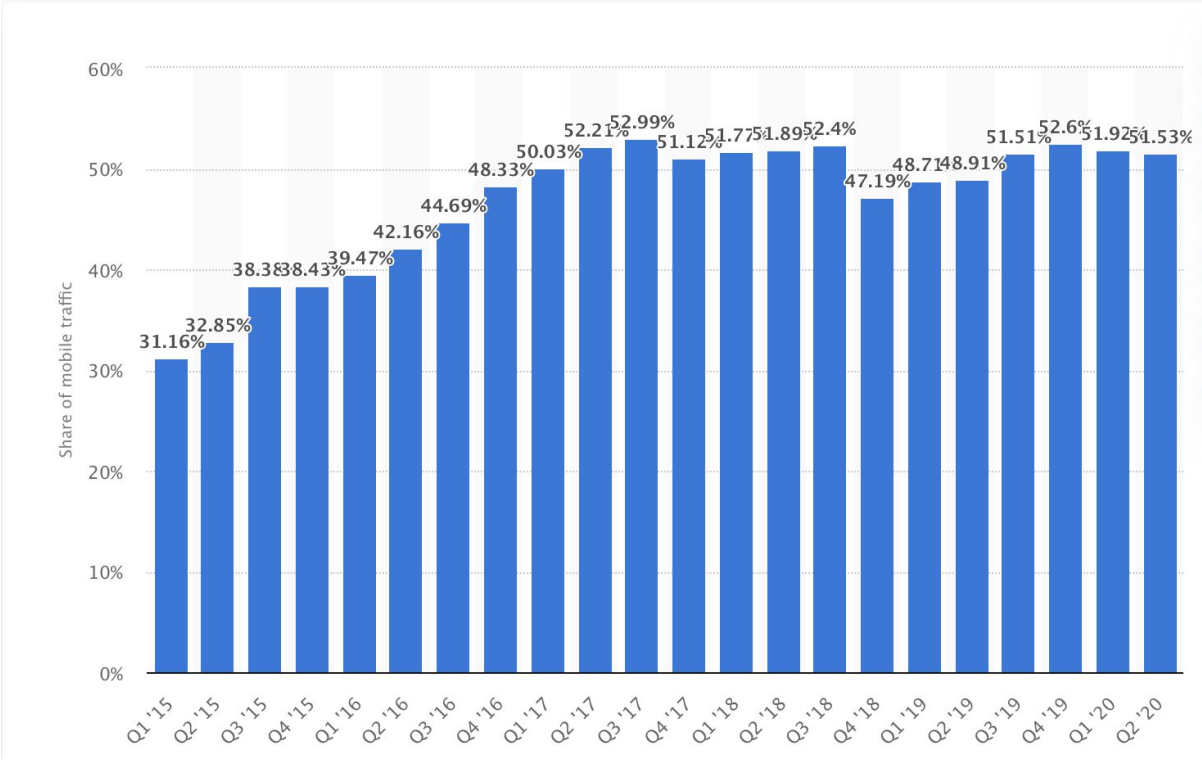
“Mobile first”, start the product design from the mobile end which has more restrictions, then expand its features to create a tablet or desktop version.

The idea is Progressive Enhancement



Mobile First

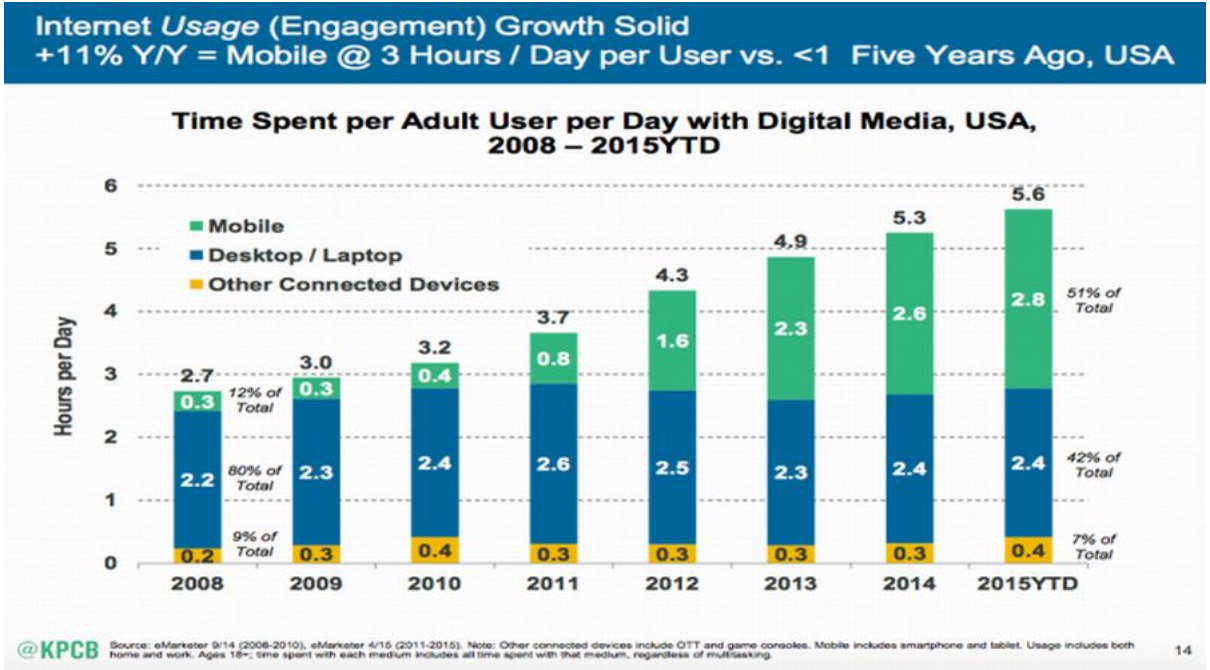
50% of internet traffic are mobile users



Mobile First

Mobile users spend more time on the internet

Smartphone sales have overtaken PC sales



Wireframes

Visual guide. Represents the skeletal of a website. Mockup of a web-page or component.

Low-Fidelity: Rough sketch

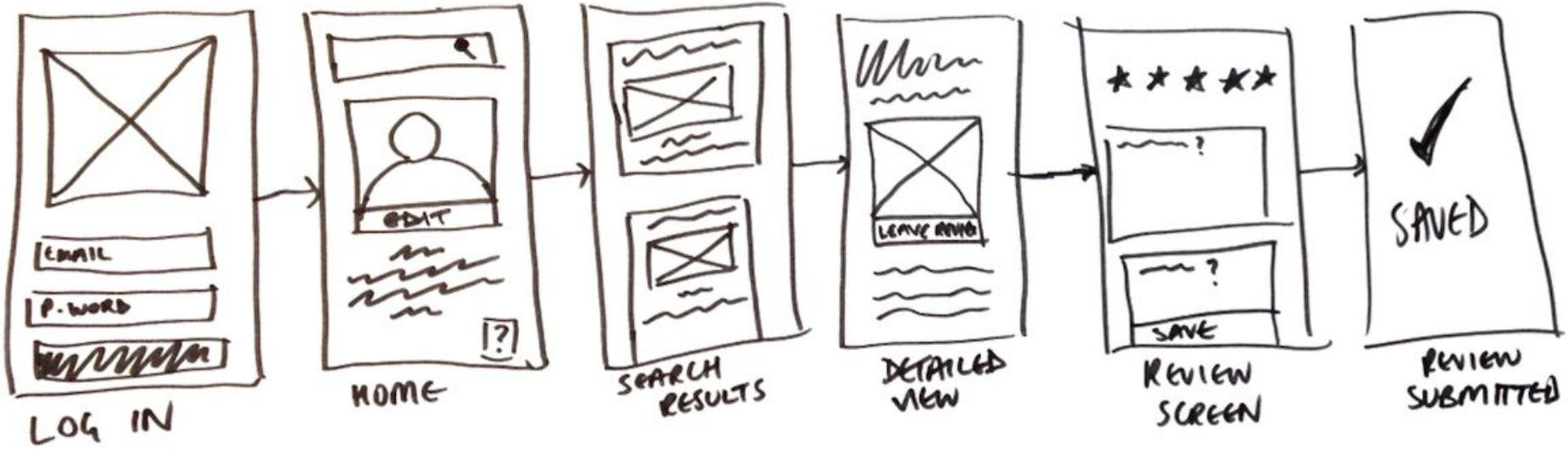
Mid-Fidelity: Between low & high

High-Fidelity: Polished image of the site

Low Fidelity Wireframe

Help a team communicate ideas and collaborate.

Abstract, using rectangles and labeling to represent content



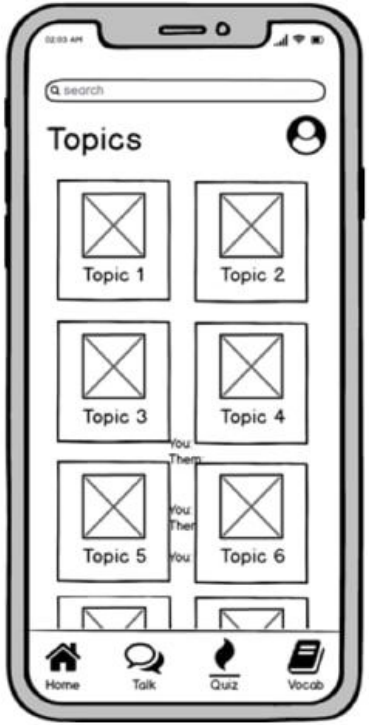
Low Fidelity Wireframe

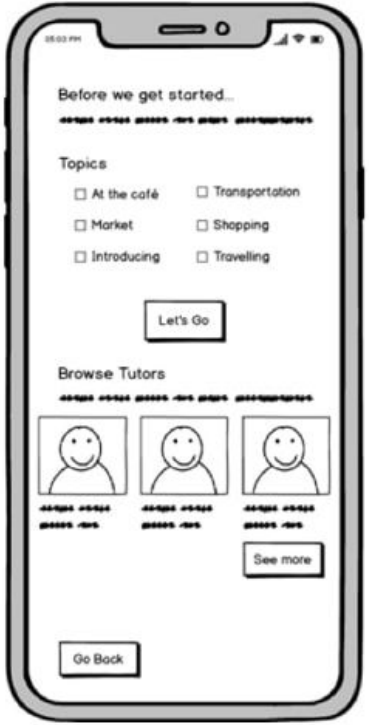
- Fast & easy to make
- Try different ideas (layouts, etc)
- Help a team communicate ideas and collaborate.
- Abstract. Uses rectangles and labeling to represent content
- Avoid distractions such as images or typography

Mid Fidelity Wireframe

Most commonly used wireframe. Mid-fidelity wireframes feature more accurate representations of the layout

- Avoid distractions such as images or typography
- More detail is assigned to specific components
- Features are clearly differentiated from each other


search
Topics
Topic 1
Topic 2
Topic 3
Topic 4
You
Them
You
Then
You
Topic 5
Topic 6
Home
Talk
Quiz
Vocab


Before we get started...
Topics
At the café
Transportation
Market
Shopping
Introducing
Travelling
Let's Go
Browse Tutors
See more
Go Back

All Tutors
Go Back

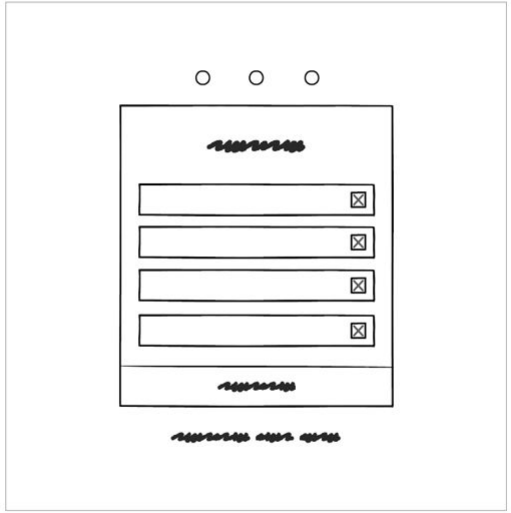
X
2 min
Send message

High Fidelity Wireframe

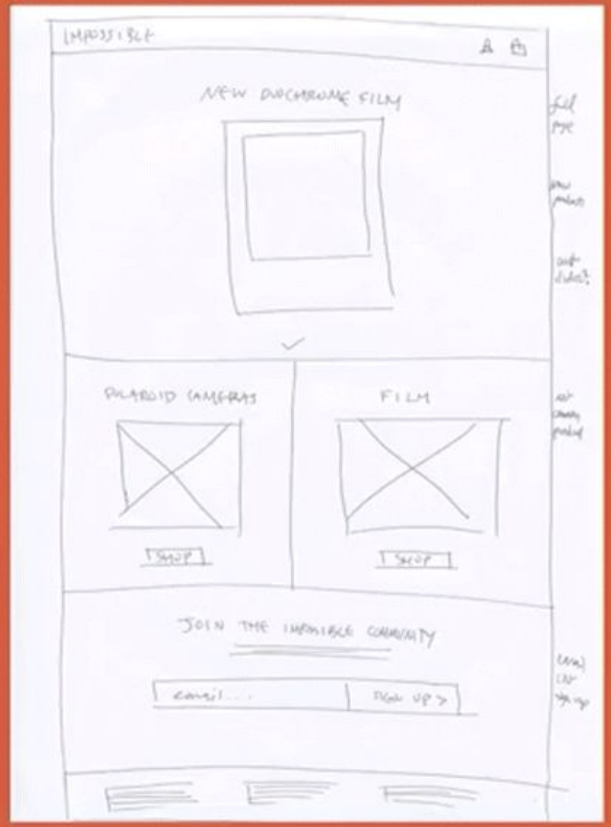
Pixel exact replica

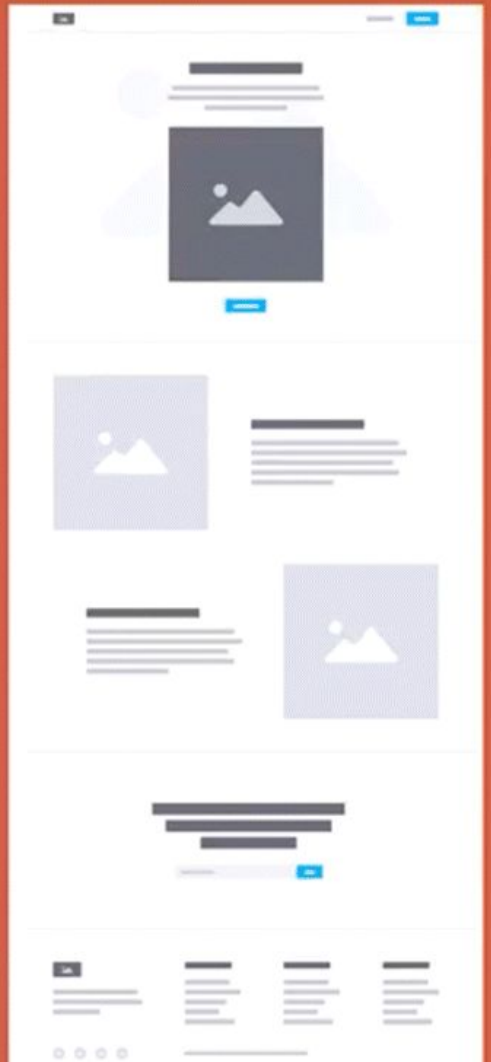
Real content, specific typography choices, and information on image dimensions

Mid-Fidelity Wireframe

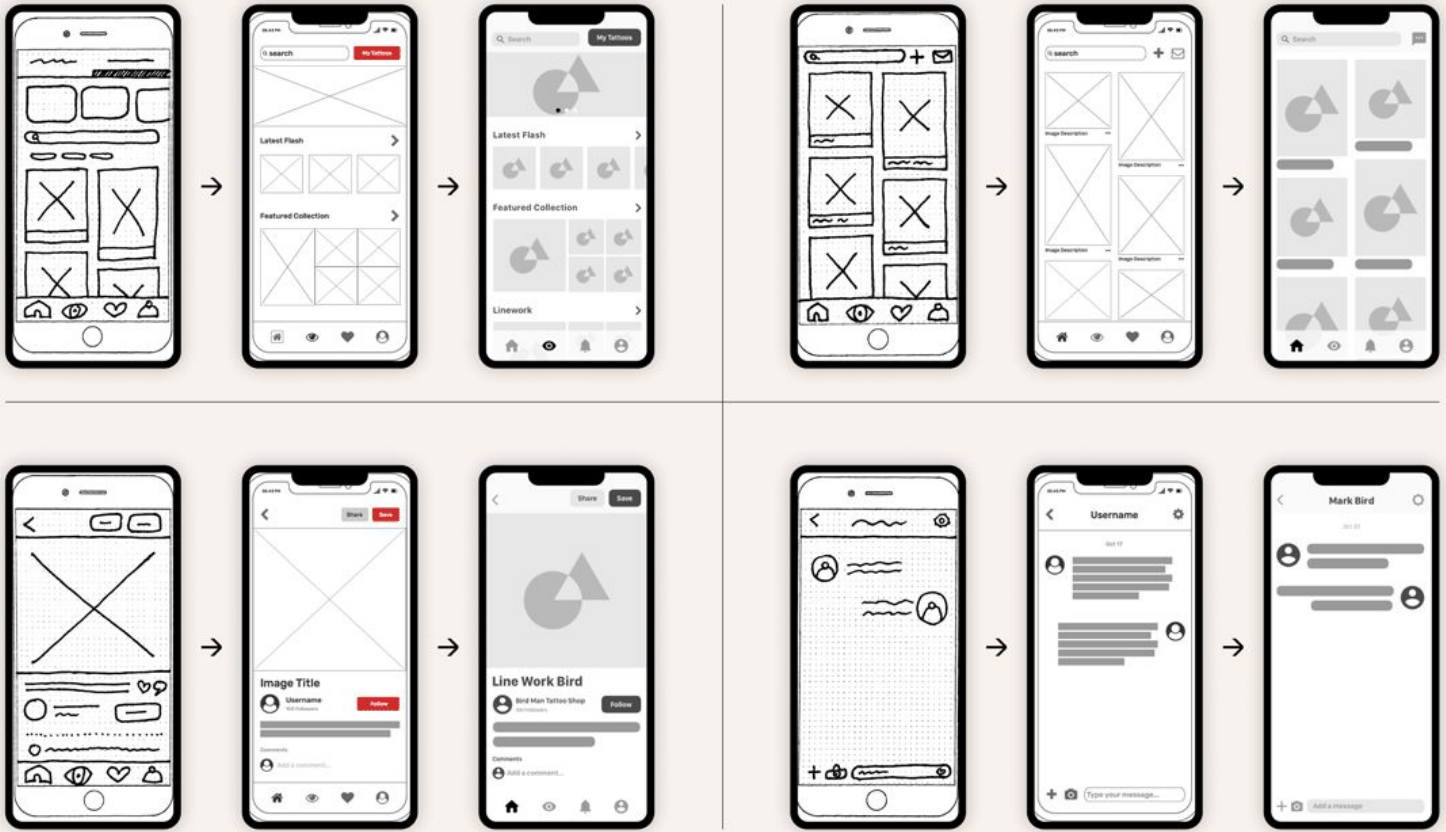


High-Fidelity Wireframe


NEW DUOCHROME FILM
POLAROID CAMERAS
FILM
SHOP
SHOP
JOIN THE IMPOSSIBLE COMMUNITY
SIGN UP



IMPOSSIBLE
SHOP
GOLDEN MEMORIES
SHOP NOW
CHOOSE YOUR CAMERA
INSTANT FILM
SHOP NOW
ENDLESS INSPIRATION
SIGN UP
IMPOSSIBLE


search
My Tattoos
Latest Flash
Featured Collection
Linework
Image Title
Username
Follow
Share
Save
Line Work Bird
Bird Man Tattoo Shop
Comments
Add a comment...
Mark Bird
Type your message...

User Satisfaction

- First impressions mean everything
  - In about 50 milliseconds (0.05 seconds) users form an opinion about a website. Determines whether they like it or not, whether they'll stay or leave
  - First impressions are 94% design-related
  - In 2.6 seconds a user's eyes to land on an area of a website that most influences their first impression
  - 75% of users admit to judging a company's credibility based on their website design
- Mobile first
  - 57% of internet users say they won't recommend a business with a poorly designed mobile website
  - 85% of adults think a company's mobile website should be as good or better than its desktop version
  - 63% of all retail website visits in Q2 2018 were smartphone users

HW - Reading

HTML/CSS/JavaScript If you want to learn or practice something specific. These are very basic tutorials.

- Intro to CSS & HTML (articles), CSS Crash Course Tutorial (video)
- Bootstrap Grid System
- A re-introduction to JavaScript (JS tutorial)

Bootstrap, Intro to React - Tutorial

HW Pt1 (Individual)

Build a checkout form. See this link as an example. You should have a billing address section, shipping address section, payment section, and a cart section.

If the checkbox “Shipping address is the same as my billing address” is clicked, then the shipping address section shouldn’t appear.

Add null/empty validation to each input. Your validation can happen after users type in or on submit click.

Push your code to git (any repo) and submit the link in your HW. This should not be 1 huge commit. Commit & push small updates as you work. I will also require the code in Gradescope. It has a plagiarism detection feature.

I should be able to simply clone your repo & open your HTML file in my browser to run it. Meaning, you can use bootstrap, sass, etc, but no dependencies on webpack, node, etc.

HW Pt2 (Group Submission)

Create the wireframes for each screen of your website. I will let you choose whether you do low, mid, or high fidelity.

Figma is a great tool to create your wireframes. Here's a learning guide if you want to use it.

Submission:
Add each wireframe to your HW submission.

If you use figma, please submit the link with your HW.