

UX & Visual Design Principles for Developers

LUBINA BOGOEVA March, 2024 "The best user experiences happen when developers and designers speak the same language. When developers understand the why behind design decisions, they can build products that are not only functional but also delightful."

- Luke Wroblewski, international author and speaker

US

UX strategist

- Objectives clarification
- Employs methodology
- Vision and solutioning
- Planning prioritization
- Roadmap strategies
- Execution oversight
- Measurement

UR

User researcher

- Owns research strategy
- Performs heuristic reviews
- Plans, conducts research
- Reviews analytics
- Builds personas, empathy maps, journeys
- Voice of the user / customer

BA

Business analyst

- Understand business strategy, scope
- Articulates, clarifies business objectives
- Deep product knowledge
- Defines business value
- Voice of the business

IA

Information architect

- Person-logical architectures
- Navigation schemas
- Organization schemas
- Scalable patterns
- Journey maps
- Taxonomies

ID

Interaction designer

- Interaction modeling
- Experience design
- Mental modeling
- Storyboards
- Wireframes
- Mockups
- UI accessibility

VD

Visual designer

- Graphics and art
- Iconography
- Typography
- Color
- Style
- Branding
- Spacing and hierarchy

CS

Content strategist

- Content mapping
- Tone, voice, style
- Content creation
 Cultural context review
- Content organization
- Copy editing
- Communications

FED

Front-end developer

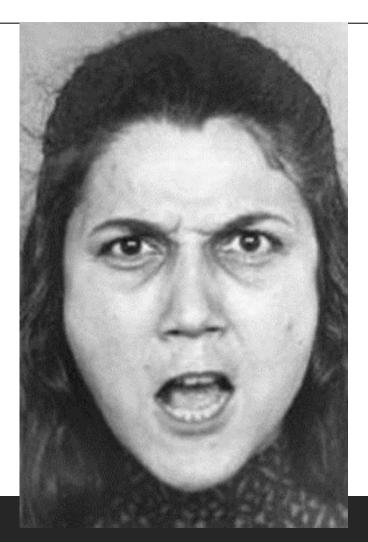
- Code to implement designs
- Front-end frameworks
- Development languages
- Web, native, hybrid management
- Functionality and integration
- Coded accessibility



(User Experience is a team effort)

@MECUXD 2020

What do you see?



How much is?

17 x 24

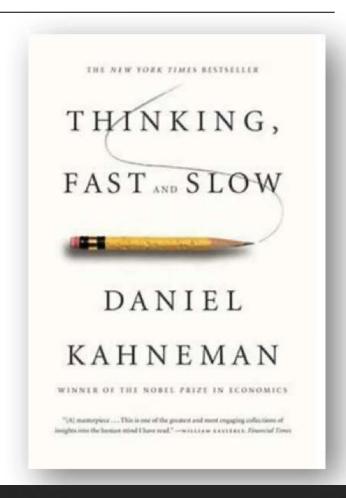
Logical Mind vs. Emotional Mind

System 1 operates automatically and quickly, with little or no effort and no sense of voluntary control.

System 2 allocates attention to the effortful mental activities that demand it, including complex computations.

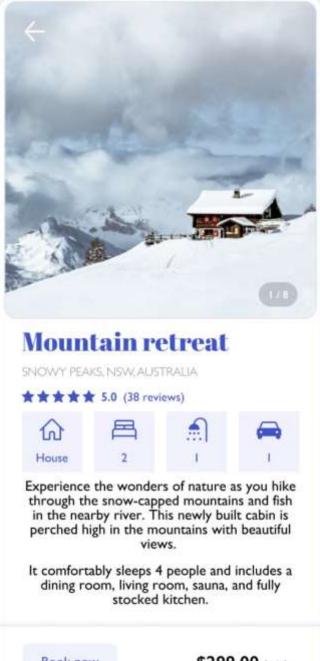
When we think of ourselves, we identify with System 2, the conscious, reasoning self that has beliefs, makes choices, and decides what to think about and what to do. Although System 2 believes itself to be where the action is, the automatic System 1 is the hero of the book.

-- Daniel Kahneman, winner of the Nobel Prize in Economic



Hierarchy

- Step farther back from the screen
- Squint
- What do you see?

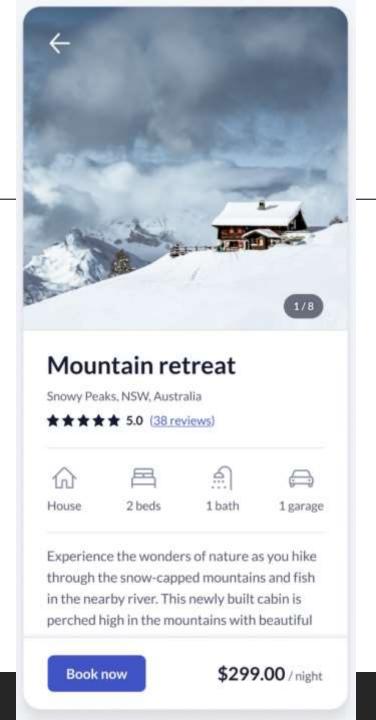


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Hierarchy

What about now?



Type Hierarchy

Hierarchy

lets the reader know where to look first

Create hierarchy through scale, alignment, balance, emphasis and dominance.

Scale

What?

Using relative size to signal importance and rank in a composition.

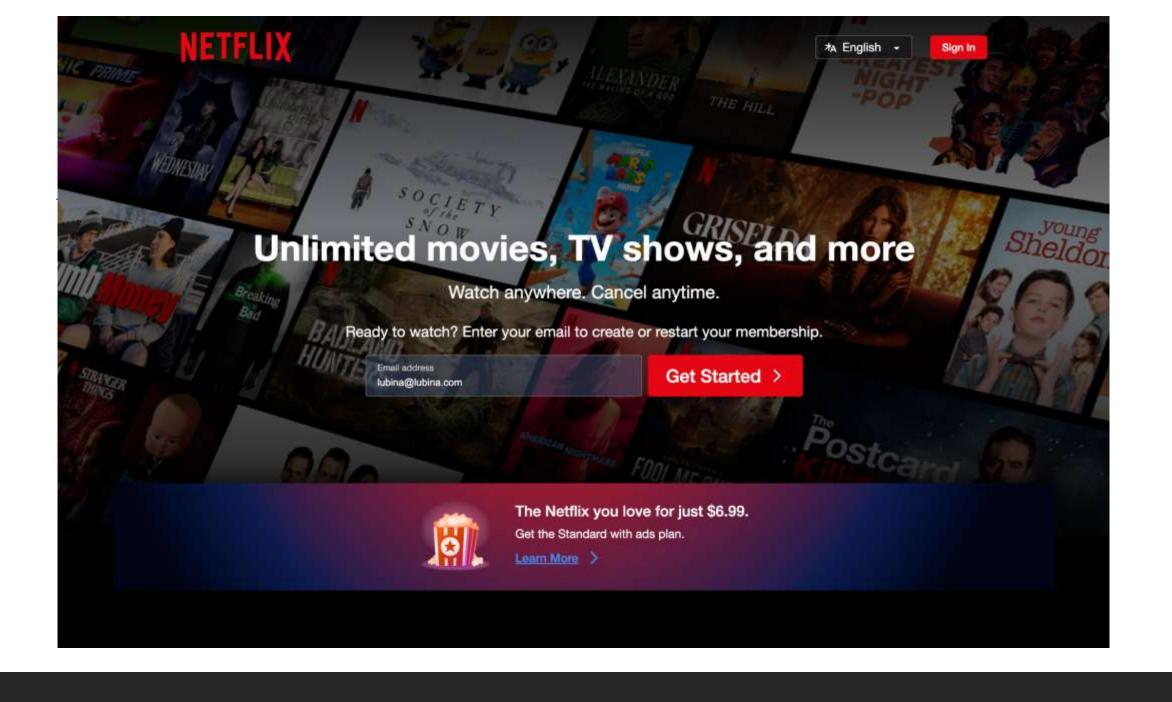
Why?

The most important elements in a design are bigger than the ones that are less important because when something is big, it's more likely to be noticed.

How?

Consider what you want your audience to look at first and use that to guide your strategy. A visually pleasing design generally uses no more than 3 different sizes. Having a range of differently sized elements will not only create variety within your layout, but it will also establish a visual hierarchy. Don't rely on color alone because it's not accessible for everyone and it's dependent on lighting conditions.

Clingy Cat Solutions All cats young and old can exhibit clingy behavior. The good news is that we can change needy behavior through the use of positive reinforcement training. You will find that, in very simple ways, you can change your cat's mind and redirect unwanted neediness. Plus, training can be both mentally and physically stimulating for your cat. You may be hestent to start because you're worried about the time Involved. While If a true that some training goals can take some time to achieve, training sessions with a cat should always be short and sweet. Why not get started? All you need in 10 minutes a day. Here are three common needy behaviors and methods for resolving them. 1. Laptop Lover My 17-year-old cat. Bob, has his own subtle (yet hugely irritating) way of bothering. One minute I'm typing away and Bob is nowhere to be seen. I'm deep in concentration, writing about cat behavior, when I notice a letter on the screen that I didn't put there. It came from a sneaky paw attached to a striped body that just seemed to materialize in the form of a giant cat blob lying flat next to the computer. Does this sound familiar? If you want things to change, you'll need to be a bit more observant and consistent than I've been with Bob. You'll need to catch him in the act of sneskiness. As you're typing away, watch him out of the corner of your eye. As he approaches the table and looks up to to your foot, then as he healtates say "Good" and not his head. Tour a cat treat an







Deals



Alignment

What?

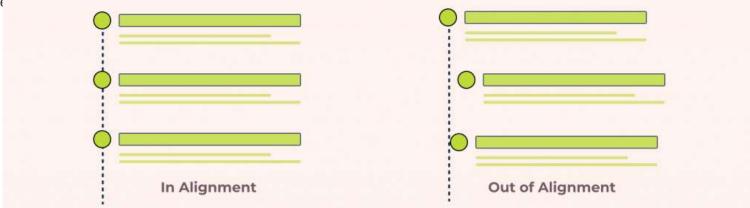
Objects are said to be aligned when they are placed in such a way that their edges or central axis line up on a common position.

Why?

Contributes to the aesthetics and projects polished, professional image. Promotes proper product organization that helps users navigate easily through our product. Users prefer things that are organized. It helps them find what they are looking for. Creates a sense of unity in the product. Guides the users and helps them understand the connections between different elements.

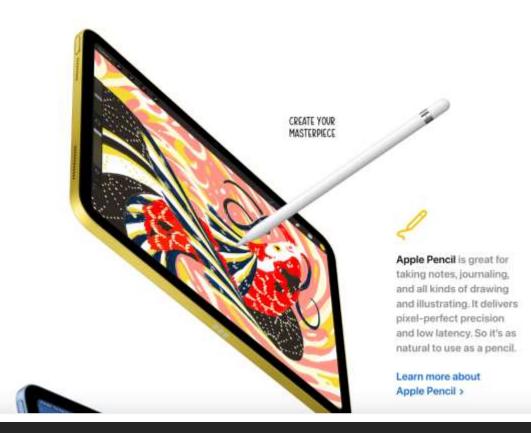
How?

imagine invisible lines running across the page around every element. If you were to align the "margin" of the page with a ruler – do elements line up accordingly? This is a great way to tell if proper alignment is being used. You can actually use grids, as well as lines to ensure proper alignment. The next time you are working in PowerPoint or InDesign – simply drag lines from the "ruler" surrounding the edges of the document to ensure proper alignment. A quick way to align elements is to use the Align tool, available in most design application, as well as Power Point. Sometimes breaking the grid is a good thing, it can look creating and and from Theorems is to be described and the design application.



Jot for joy. Type with ease.

Expand what you can do with everyday essentials designed just for iPad, like Apple Pencil and the Magic Keyboard Folio. Add a colorful Smart Folio for front and back protection. And connect to drives, docks, displays, and more using USB-C.*



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iPad







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Serious performance in a thin and light design.

iPad Air

10th generation The colorful, all-screen iPad for the things you do every day.

From \$440

iPad

9th generation All the essentials in the most affordable iPad.

From \$329

10.2"

experience designed to fit in one hand.



iPad mini

The full iPad

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Lewn more >

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12.9" or 11"

Liquid Betina XDR display or Liquid Retira display* ProMotion technology

P3 wide color Antireflective coating 10.9"

Liquid Retina display*

P3 wide obler. Attireflective coating 10.9"

Liquid fleting display* Retina display

kROS color sRGB color 8.3"

Liquid Retina display?

Plimide color Antireflective coating





ATA A14 Bionic chip

Ats A13 Bionic chip



ANG A15 Blank chip



12MP Uttre Wide front camera





system

12MP Ultra Wide front camera

Landscape 12MP Ultra Wide front camera.

12MP Ultra Wide front camera

Invoice w/ proper alignment

Item Description	Price(USD)
Clay Pot	100.54
Sharpie	5.00
Pencil	24.24
Key Chain	24.00
Eraser	4.99

Sub Total: 158.77

Tax: 0.00

......

Grand Total: 158.77

Invoice w/ left alignment

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Sub Total: 158.77

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Balance

What?

Balance occurs when there is an equally distributed (but not necessarily symmetrical) amount of visual signal on both sides of an imaginary axis going through the middle of the screen. This axis is often vertical but can also be horizontal.

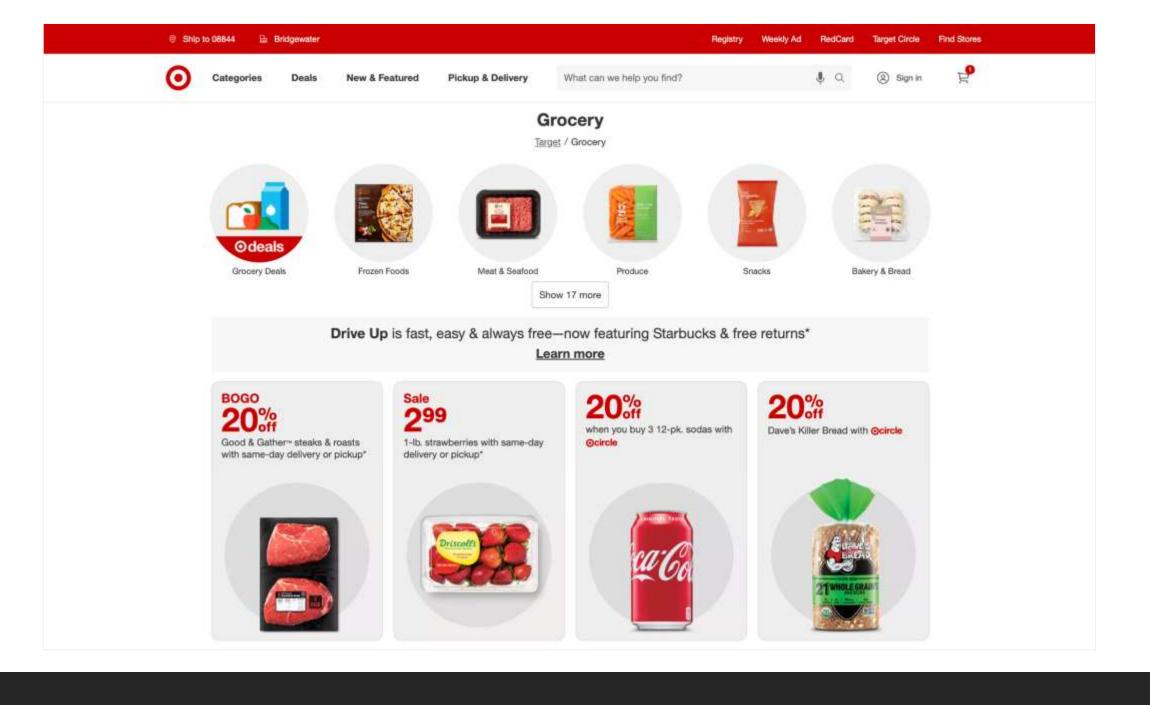
Why?

Balance creates structure and emphasis on important pieces of your design. Balance is the foundation of a good layout.

How?

The type of balance you use depends on what you try to convey:

- **a. Symmetrical:** Elements are symmetrically distributed relative to the central imaginary axis. Symmetry is quiet and static. It creates a sense of formality, tradition and steadiness.
- **b. Asymmetrical:** Elements are asymmetrically distributed relative to the central axis. Asymmetry is dynamic and engaging. It creates a sense of energy and movement.
- **c.** Radial: Elements radiate out from a central, common point in a circular direction. It will always lead the eye to the center of the composition.





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Dominance

What?

Dominance refers to the visual weight or prominence of an element within a design composition.

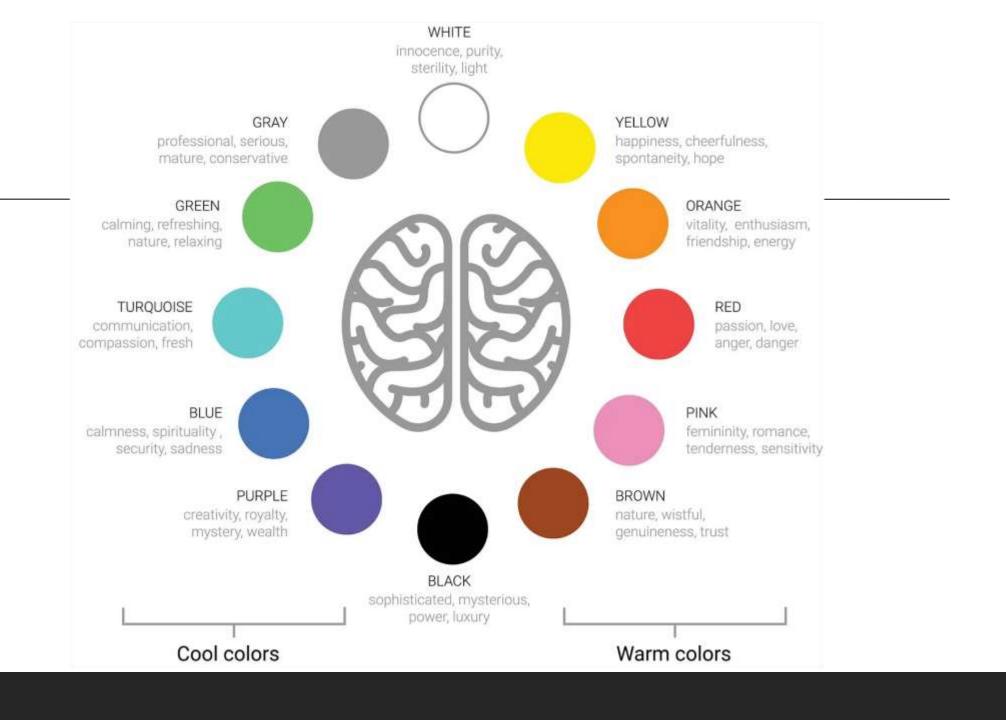
Why?

Establishes the primary focal point and helps create the hierarchy of importance that directs the viewer's gaze.

How?

Dominance can be accomplished through a variety of ways that can be used alone or in combination:

- **a. Size:** Larger elements tend to dominate smaller ones. For instance, a headline in a bold, large font size will draw more attention than the surrounding text.
- **b.** Color: Besides light/dark, varying the brightness and hue can make certain elements more dominant. Fore example, a vibrant color will make an element stand out against a muted background.
- c. Contrast: Besides light/dark, you can use variances in thickness, texture and patterns to establish something as more dominant than the rest.
- d. Positioning: Elements placed in a prominent location within the layout will naturally attract attention and dominate the composition.
- **e. Isolation:** Isolating elements from the rest can create a focal point and draw attention to important information. This technique should be used sparingly in order to be effective, and preferably in combination with another design technique such as varying the color or size.

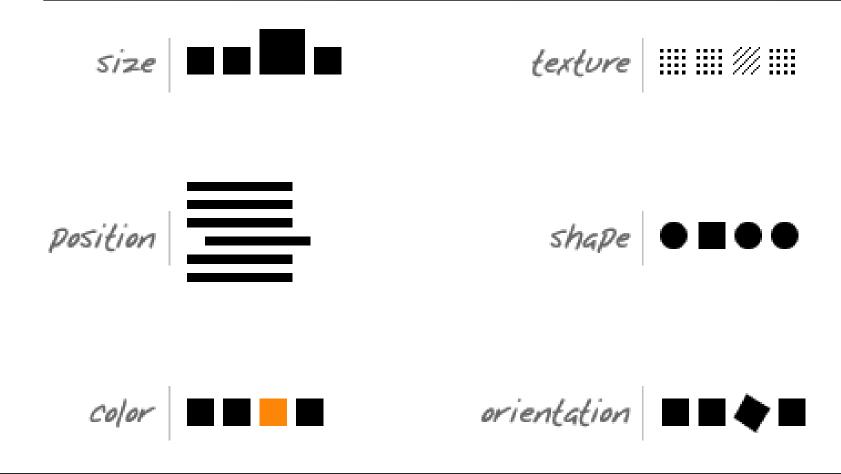


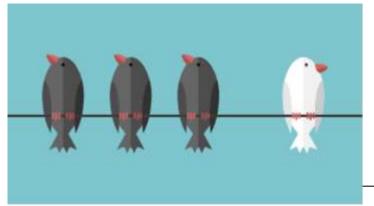
Color

- Color is a form of communication.
- The meaning of color depends on culture.
- Colors have a lot of <u>meanings</u> and taps into emotions.



Contrast









BLACK white





Positioning and Isolation



Models Shop Own Discover Audi Electric

myAudi login



Audi Electric

What is e-tron

Charging

e-tron technology e-tron benefits

Emphasis

What?

Emphasis guides the viewer's attention within the established hierarchy.

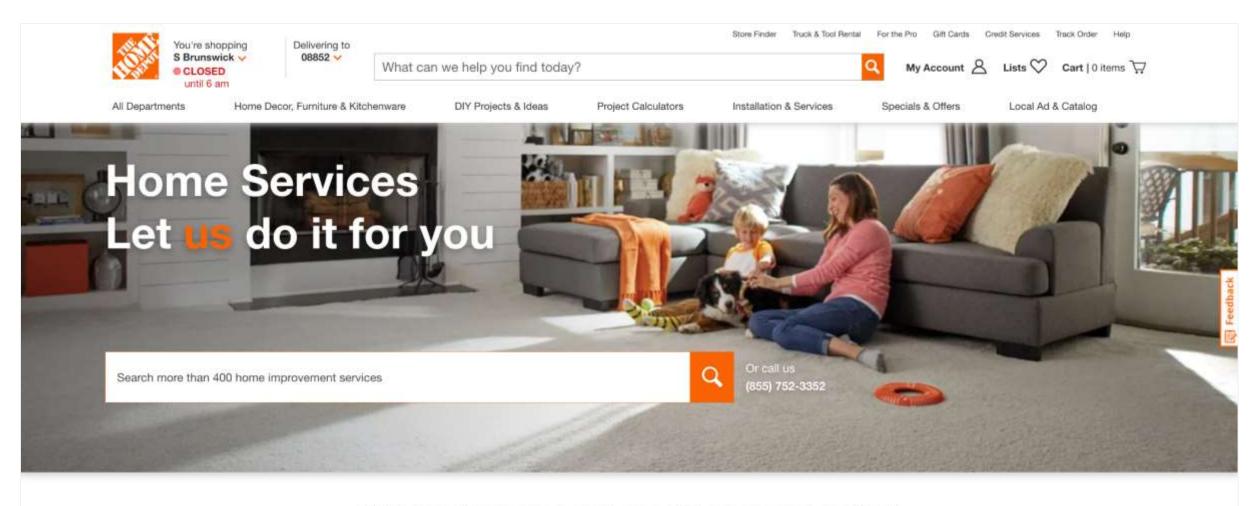
Why?

Emphasis draws the viewer's attention to what is important – the most significant elements that help highlight your main message. It ensures that it is clear what are the important points within your message.

How?

Emphasis can be established the same way dominance can since emphasis presents dominance within a smaller section:

- a. Size: Larger elements tend to dominate smaller ones. For instance, a headline in a bold, large font size will draw more attention than surrounding text.
- **b. Color:** Besides light/dark, varying the brightness and hue can make certain elements more dominant. Fore example, a vibrant color will make an element stand out against a muted background.
- **c. Contrast:** Besides light/dark, you can use variances in thickness, texture and patterns to establish something as more dominant than the rest.
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- e. Isolation: Isolating elements from the rest can create a focal point and draw attention to important information. This technique should be used



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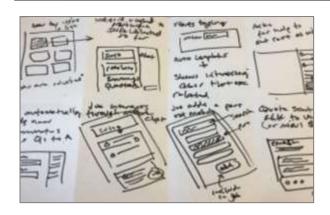
. PLEASE .

TURN OFF The light

[ON YOUR WAY OUT]

SAVE ENERGY

Prototype: Visualize Ideas



Sketches

The RICE scoring model is a prioritization framework designed to help product managers determine which products, features, and other initiatives to put on their roadmaps by scoring these items according to four factors. These factors, which form the acronym RICE, are reach, impact, confidence, and effort.



Wireframes

MoSCoW prioritization, also known as the MoSCoW method or MoSCoW analysis, is a popular prioritization technique for managing requirements. The acronym MoSCoW represents four categories of initiatives: must-have, should-have, could-have, and won't-have, or will not have right now.

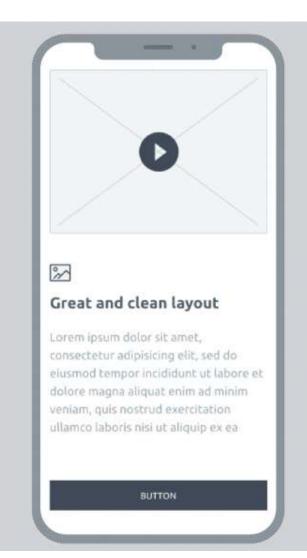


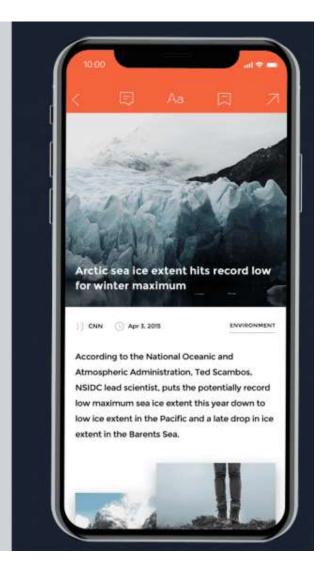
Mockups

The Prioritization Matrix is a diagram that shows the relative importance of the ideas generated in the prior session based on the value they'd bring to the user and the effort required on the part of the team.

Sketch Wireframe Mockup







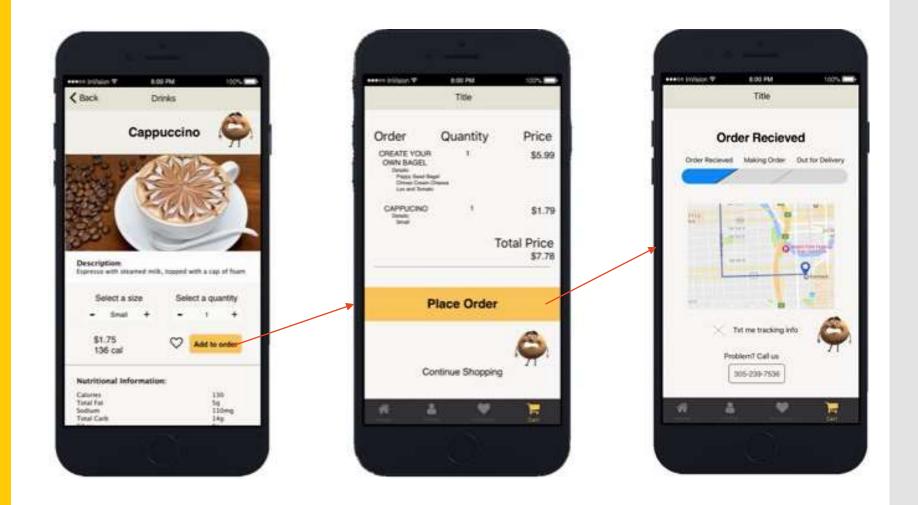
Interactive Prototypes

are realistic, tactile representations of your ideas. The goal is to understand what components of your ideas work, and which do not. Begin to weigh the impact vs. feasibility of your ideas through feedback on your prototypes.

Make your prototype realistic using actual data.

Make it interactive so the test subjects can click and explore the functionality.

Keep an open mind - the prototype will need to be changed based on the testing results.



Implement: Make the Vision Real

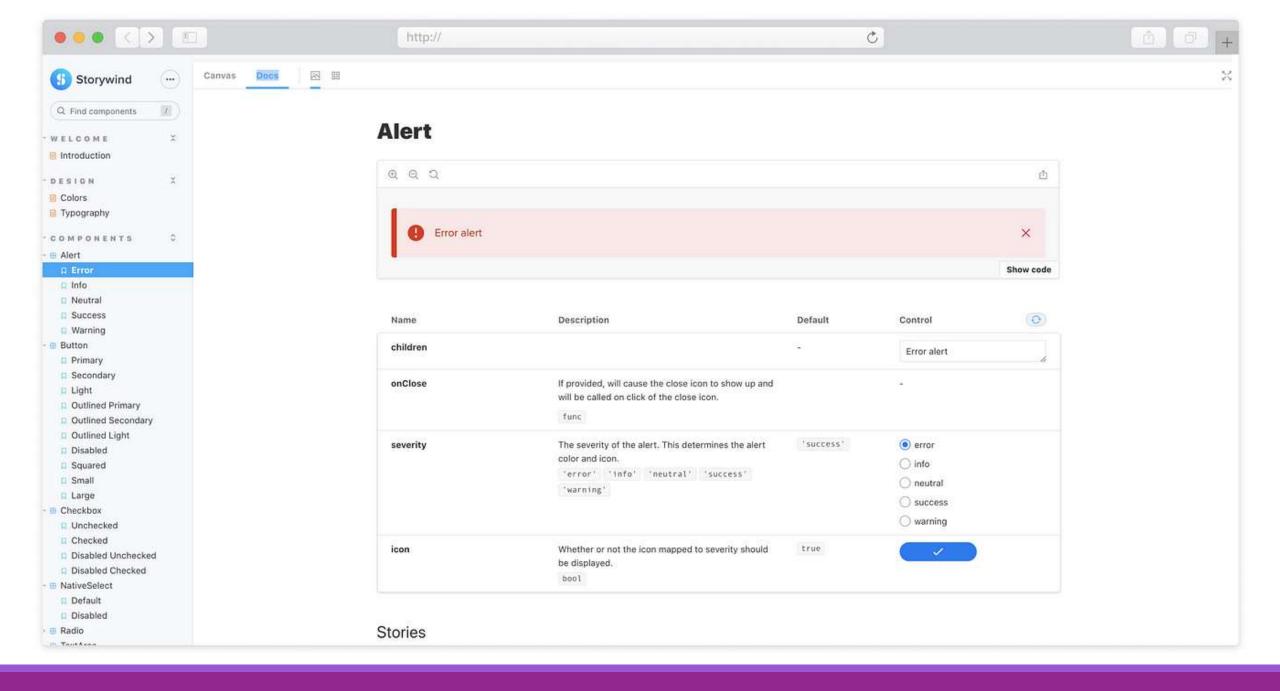
Frequent communication with the development team – software engineers, DBAs, UI developers, etc.

Design System in addition to the branding and style guides.

Design Systems

Imagine a developer's dream toolkit: a treasure trove of pre-built, pixel-perfect UI components, all neatly documented and ready to drop into your code. That's the magic of a design system! Think of it as a Lego set for interfaces, specifically crafted for your company's brand and user experience. It's different from a corporate style guide, which mainly focuses on brand voice and visual identity. A design system goes beyond visuals, providing developers with reusable code components, interaction patterns, and accessibility guidelines – all living in one central hub.

No more reinventing the wheel every time you need a button or a form. Design systems save you tons of time and effort, letting you focus on the logic and functionality of your app. Plus, it ensures consistency across the entire product, meaning a more polished and user-friendly experience for everyone. So, ditch the UI cobbled together from scratch and embrace the power of a design system – it's your ticket to building beautiful, efficient, and brand-on-point projects!



Figma

Currently the most popular tool for developer-designer collaboration,

Real-time Collaboration and Feedback:Leave Comments and Ask Questions Directly on Designs:

Follow Design Changes: Developers can subscribe to Figma files and receive notifications for any changes made by designers. This keeps everyone in the loop and avoids duplication of efforts.

Easy Access to Design Assets and Specs:Inspect Design Properties: Figma's Inspect panel provides detailed information about design elements, including dimensions, colors, fonts, and code snippets. This saves developers time by eliminating the need to manually extract these details.

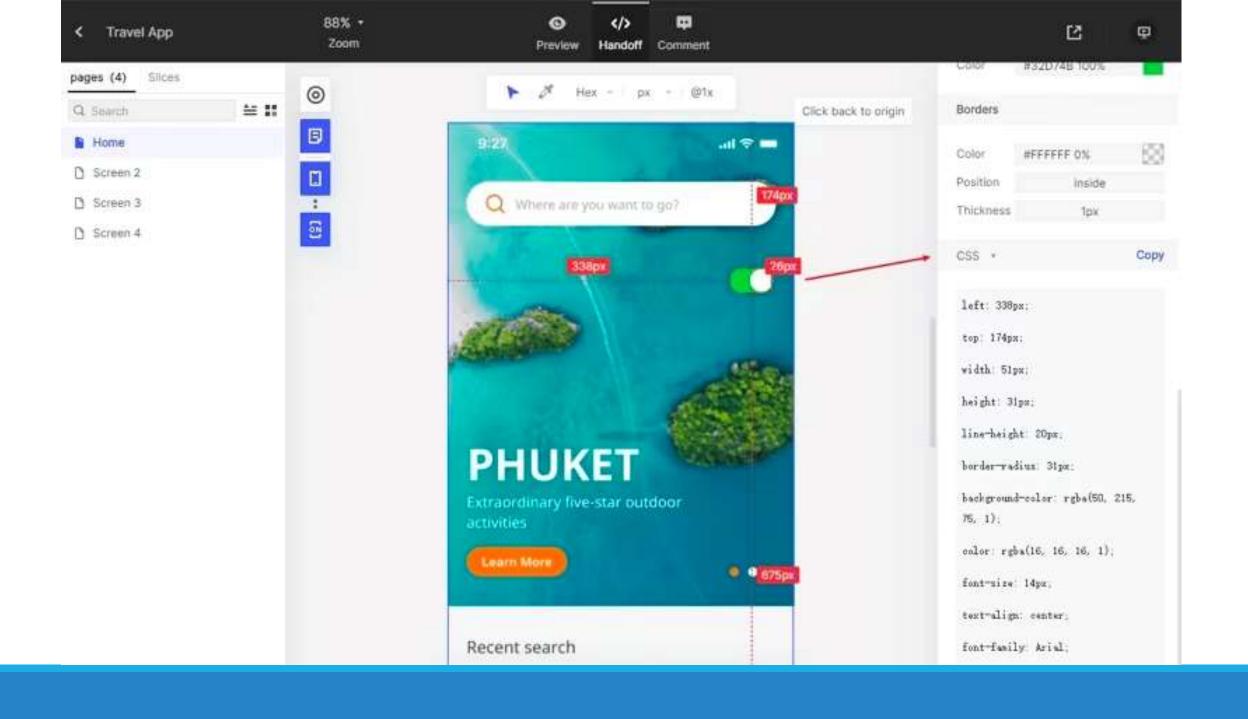
Download Assets: Developers can easily download design assets like icons, images, and SVGs directly from Figma, ensuring they have the latest versions for implementation.

Prototyping and User Testing: Interactive Prototypes: Designers can create interactive prototypes in Figma, allowing developers to test the functionality and user flow before starting development. This helps identify potential issues early on and saves time in the long run.

Design Systems and Component Libraries: Consistent UI Elements: Figma's design systems and component libraries allow designers to create and manage reusable UI components that developers can easily implement in their code. This ensures consistency across the product and saves time on development.

Plugins: Some Figma plugins, like Anima and Avocode, can automatically generate code for design elements, further streamlining the handoff process and reducing the risk of errors.

Regularly scheduled meetings, shared documents, and agreed-upon processes for design handoff can further enhance collaboration and prevent misunderstandings.



Q & A

THANK YOU!