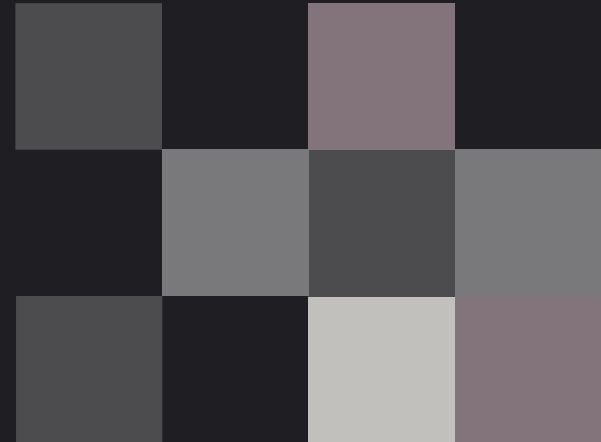


COURSE DAY 2

UI/UX Training for Engineers

September 2025



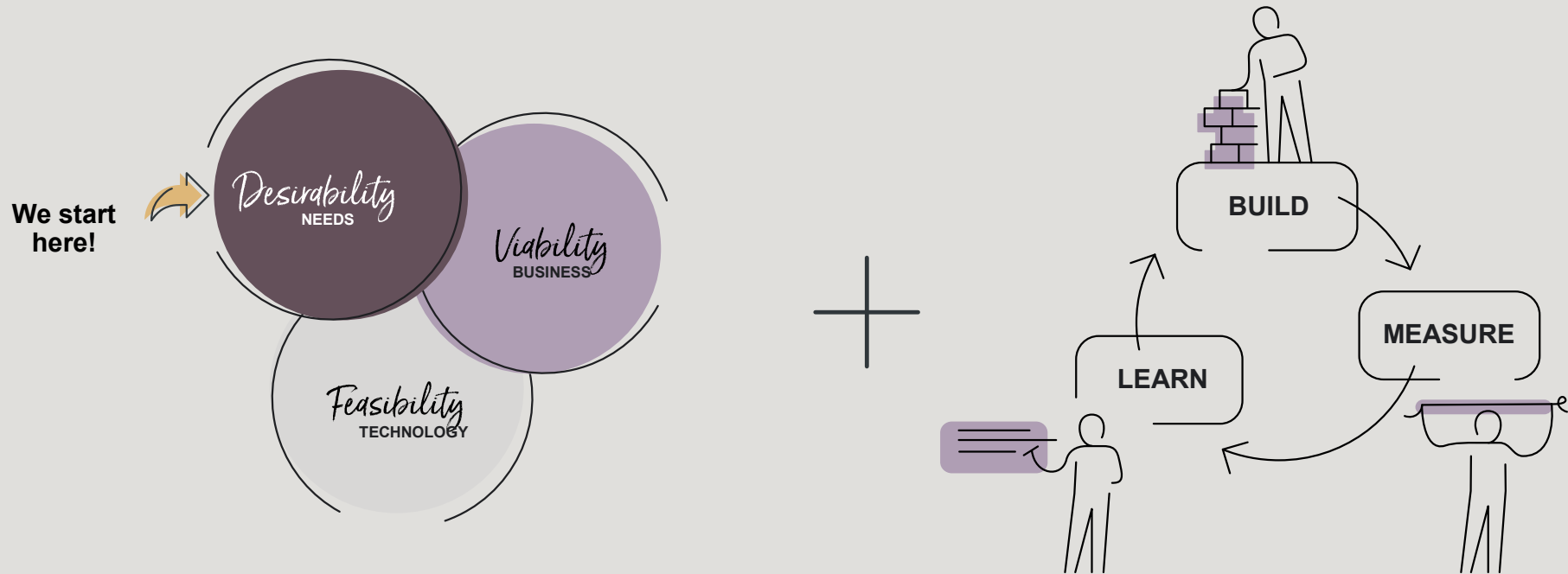
WELCOME BACK

& thank you for yesterday

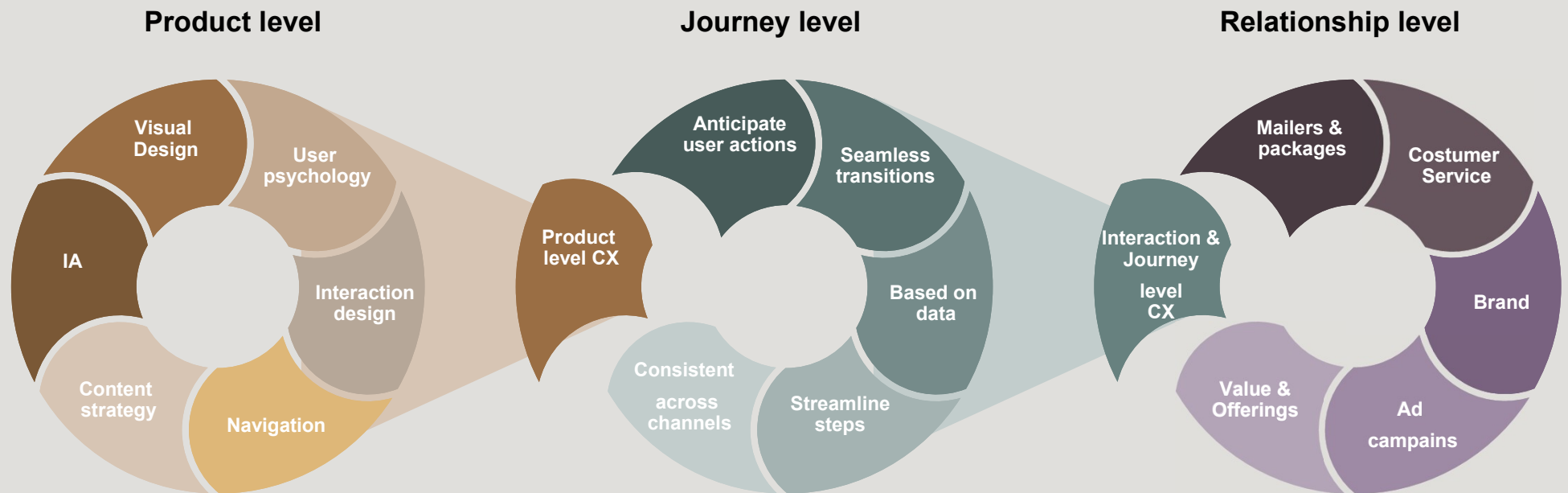
What about **yesterday's agenda**
was important or interesting to you?

Recap on UX

Mindset and process



A mindset with a broad toolkit depending on the user group and level of interaction



Today's purpose

The goal is not to make you designers, but to give you tools to view your system objectively, **identify relevant design issues, and apply practical design methods to solve them.** The focus is on ensuring the **system is useful and meets user needs, with strategic, analytical choices rather than gut feeling.**



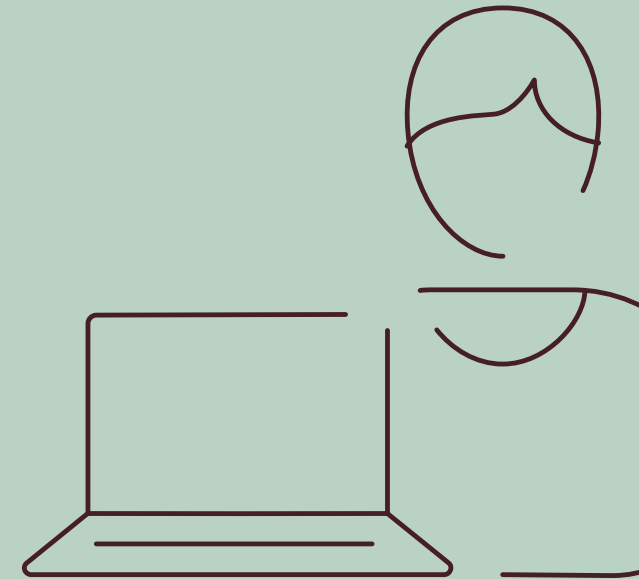
IT'S TIME FOR THE AGENDA

Usability, IA and UI



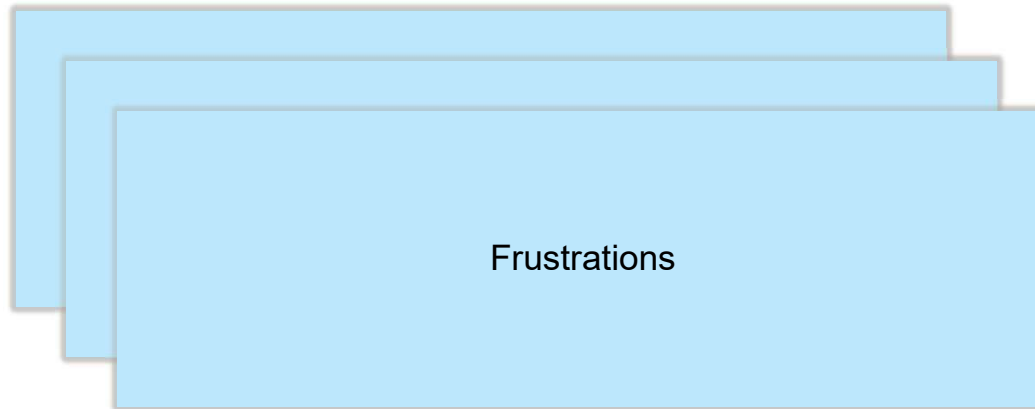
Exercise

— Worst possible UI



userinyerface.com

Worst possible UI - **Frustrations**



Frustrations

**IT IS TIME FOR A
SHORT BREAK**

UI Design

Does *golden* UI design rules exist?

Or should we call them *guidelines*?

Gestalt

are principles/laws of human perception that describe how humans group similar elements.

Accessibility

the practice of designing and developing websites, tools, and technologies so that people with disabilities can use them effectively.

[What are the Gestalt Principles? | IxDF](#)

[What is accessibility | MDN](#)

Heuristics

are broad rules of thumb and not specific usability guidelines.

Design Tips

Aggregated wisdom of the crowd.

[10 Usability Heuristics | NN Group](#)


Humans, Intuition Psychology & Experience



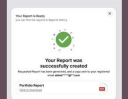
Usability Heuristics

10 Usability Heuristics – According to NN group

1



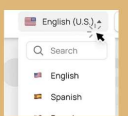
EXAMPLE
Utilize progress indicators to visually demonstrate ongoing processes




EXAMPLE
Implement notifications as direct feedback upon task completion to affirm successful actions.

Visibility of System Status

2




EXAMPLE
Optimize interface elements to reflect real-world conventions and analogies related to the context.



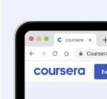
EXAMPLE
Highlighting text in an e-reading app is similar to highlighting text in a book.

Match Between the System & the Real World

3




EXAMPLE
Implement undo and redo functionalities to allow users to correct actions.



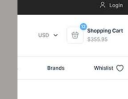
EXAMPLE
Make sure the exit is clearly labeled and discoverable.

User Control & Freedom

4



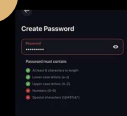
EXAMPLE
Having a design system that ensures uniformity across products.




EXAMPLE
Aligning designs with industry standards to leverage existing user familiarity and expectations.

Consistency & Standards

5



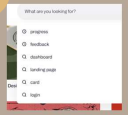
EXAMPLE
Establish constraints and defaults that guide users seamlessly through tasks.



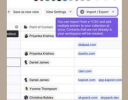
EXAMPLE
Prevent mistakes by removing memory burdens, supporting undo, and warning your users.

Error Prevention

6




EXAMPLE
Keeping frequently used options visible and easily accessible to users.



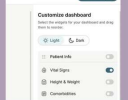
EXAMPLE
Offering contextual help through tooltips and hints, instead of giving users a long tutorial to memorize

Recognition Rather Than Recall

7



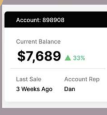
EXAMPLE
Incorporating shortcuts and gesture controls to enhance task efficiency for advanced users.




EXAMPLE
Allowing personalization options to tailor the interface to individual user workflows.

Flexibility & Efficiency of Use

8



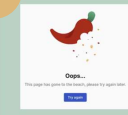
EXAMPLE
Maintaining a clear visual hierarchy to direct user attention meaningfully




EXAMPLE
Prioritizing content and task-critical elements in the user interface

Aesthetic & Minimalistic Design

9



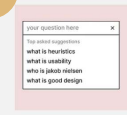
EXAMPLE
Using simple language to describe errors clearly, avoiding technical jargon or error codes




EXAMPLE
Offering suggestions or shortcuts to enable immediate error recovery.

Help Recognize, Diagnose, & Recover from Errors

10



EXAMPLE
Having help documentation that is easily searchable and user-friendly.



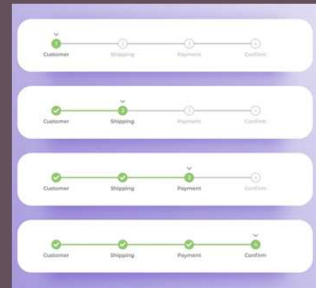
EXAMPLE
Developing clear, concise FAQs and step-by-step guides to anticipate user questions and needs.

Help & Documentation

1

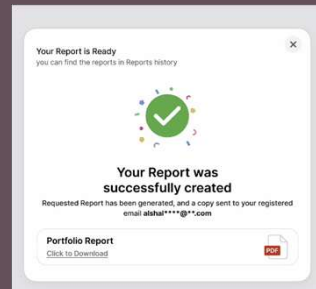
Visibility of System Status

The design should constantly **keep users informed about what is happening** through feedback mechanisms.



EXAMPLE

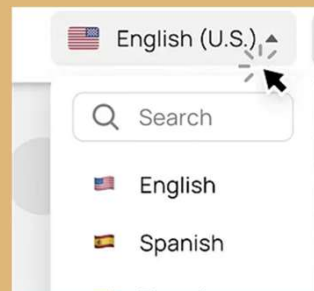
Utilize progress indicators to visually demonstrate ongoing processes



EXAMPLE

Implement notifications as direct feedback upon task completion to affirm successful actions.

Employ **language and symbols that users are familiar with** and reflect their experiences from the real world.



EXAMPLE

Optimize interface elements to reflect real-world conventions and analogies related to the context.

7.1 Introduction

A skill that a Games User Researcher should have is the ability to develop quality methods and measures to answer questions about human learning and attitudes with games. Games User Researchers should have a deep understanding of the limits of different methods and measures as well as the skill should be guiding teams to focus on the most appropriate question because while all questions are interesting, not all are equally useful to a game better.

Picking or devising a method to answer questions is just like a sports skill-based endeavour. You get better at it the more you do it. So the more you try, the better you get (just like playing games). Engaging in method selection

Games User Research, Anders Drachmann, Pejman Mirza-Rashti, Lennart E. Nacke (Eds.).
© Oxford University Press 2018. Published 2018 by Oxford University Press

EXAMPLE

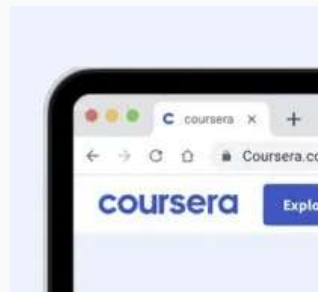
Highlighting text in an e-reading app is similar to highlighting text in a book.

Users often perform actions by mistake. They need a **clearly marked "emergency exit"** to leave the unwanted action.



EXAMPLE

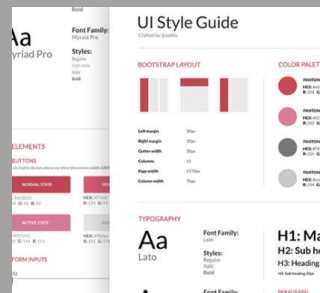
Implement undo and redo functionalities to allow users to correct actions.



EXAMPLE

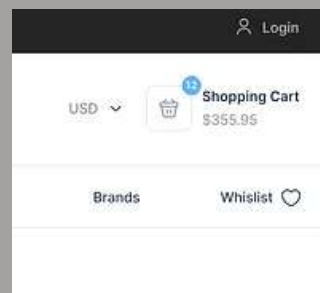
Make sure the exit is clearly labeled and discoverable.

The design should adhere to **consistent patterns and established conventions**.



EXAMPLE

Having a design system that ensures uniformity across products.



EXAMPLE

Aligning designs with industry standards to leverage existing user familiarity and expectations.

Systems should **proactively prevent errors**, helping users avoid **mistakes** rather than just providing solutions afterward.



Create Password

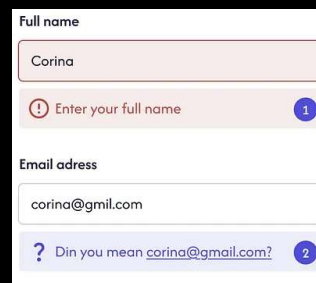
Password:

Password must contain:

- ✓ At least 8 characters in length
- ✓ Lower case letters (a-z)
- ✓ Upper case letters (A-Z)
- ✗ Numbers (0-9)
- ✗ Special characters (!@#\$%^&*)

EXAMPLE

Establish constraints and defaults that guide users seamlessly through tasks.



Full name

❗ Enter your full name 1

Email address

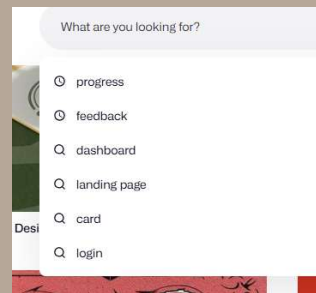
? Din you mean [corina@gmail.com?](#) 2

EXAMPLE

Prevent mistakes by removing memory burdens, supporting undo, and warning your users.

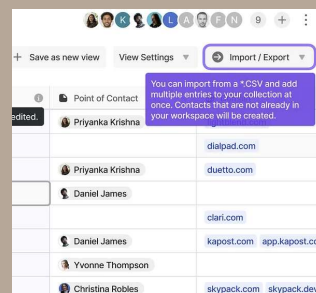
6 Recognition Rather Than Recall

The **system should rely on recognition of visible elements** rather than requiring users to recall information from memory.



EXAMPLE

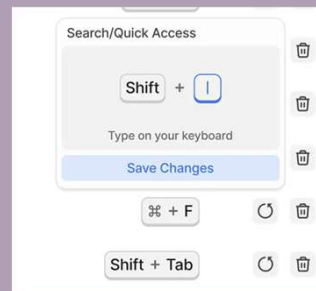
Keeping frequently used options visible and easily accessible to users.



EXAMPLE

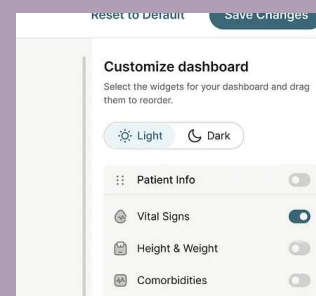
Offering contextual help through tooltips and hints, instead of giving users a long tutorial to memorize

Offer flexibility to accommodate both novice users and experts, providing shortcuts for efficiency.



EXAMPLE

Incorporating shortcuts and gesture controls to enhance task efficiency for advanced users.

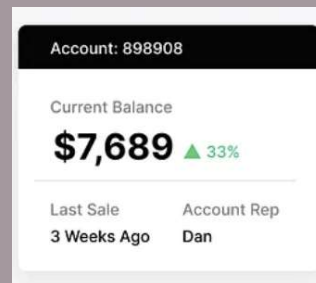


EXAMPLE

Allowing personalization options to tailor the interface to individual user workflows.

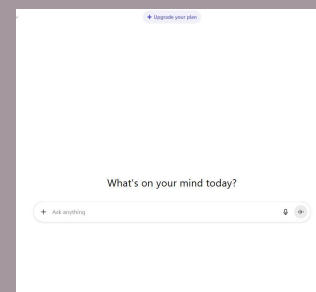
8 Aesthetic & Minimalistic Design

Interfaces should **not contain information that is irrelevant or rarely needed.**



EXAMPLE

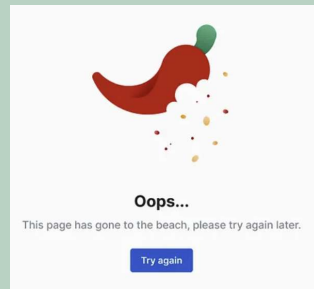
Maintaining a clear visual hierarchy to direct user attention meaningfully



EXAMPLE

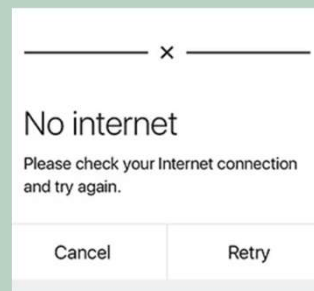
Prioritizing content and task-critical elements in the user-interface

Error messages should **be expressed in plain language (no error codes)**, precisely indicate the problem.



EXAMPLE

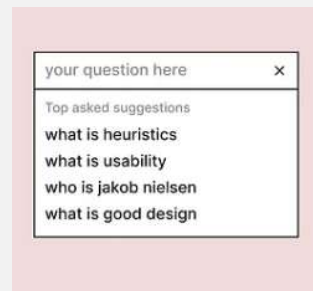
Using simple language to describe errors clearly, avoiding technical jargon or error codes



EXAMPLE

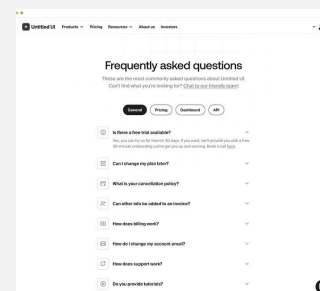
Offering suggestions or shortcuts to enable immediate error recovery.

The design should **have accessible help documentation** for guiding **users** in understanding and completing tasks.



EXAMPLE

Having help documentation that is easily searchable and user-friendly.




EXAMPLE

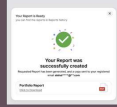
Developing clear, concise FAQs and step-by-step guides to anticipate user questions and needs.

10 Usability Heuristics – Reflections

1



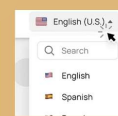
EXAMPLE
Utilize progress indicators to visually demonstrate ongoing processes



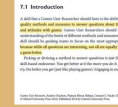
EXAMPLE
Implement notifications as direct feedback upon task completion to affirm successful actions.

Visibility of System Status

2




EXAMPLE
Optimize interface elements to reflect real-world conventions and analogies related to the context.



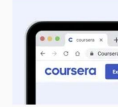
EXAMPLE
Highlighting text in an e-reading app is similar to highlighting text in a book.

Match Between the System & the Real World

3




EXAMPLE
Implement undo and redo functionalities to allow users to correct actions.



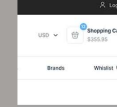
EXAMPLE
Make sure the exit is clearly labeled and discoverable.

User Control & Freedom

4



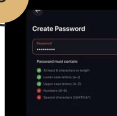
EXAMPLE
Having a design system that ensures uniformity across products.



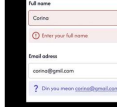
EXAMPLE
Aligning designs with industry standards to leverage existing user familiarity and expectations.

Consistency & Standards

5



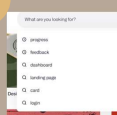
EXAMPLE
Establish constraints and defaults that guide users seamlessly through tasks.



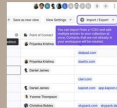
EXAMPLE
Prevent mistakes by removing memory burdens, supporting undo, and warning your users.

Error Prevention

6




EXAMPLE
Keeping frequently used options visible and easily accessible to users.




EXAMPLE
Offering contextual help through tooltips and hints, instead of giving users a long tutorial to memorize

Recognition Rather Than Recall

7



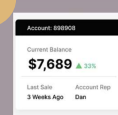
EXAMPLE
Incorporating shortcuts and gesture controls to enhance task efficiency for advanced users.




EXAMPLE
Allowing personalization options to tailor the interface to individual user workflows.

Flexibility & Efficiency of Use

8



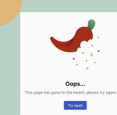
EXAMPLE
Maintaining a clear visual hierarchy to direct user attention meaningfully



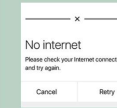
EXAMPLE
Prioritizing content and task-critical elements in the user interface

Aesthetic & Minimalistic Design

9



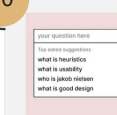
EXAMPLE
Using simple language to describe errors clearly, avoiding technical jargon or error codes




EXAMPLE
Offering suggestions or shortcuts to enable immediate error recovery.

Help Recognize, Diagnose, & Recover from Errors

10



EXAMPLE
Having help documentation that is easily searchable and user-friendly.



EXAMPLE
Developing clear, concise FAQs and step-by-step guides to anticipate user questions and needs.

Help & Documentation

Evaluating a User Interface



Heuristic Evaluation

The purpose of a heuristic evaluation is to assess the usability of a system by identifying areas where it aligns or misaligns with recognized usability heuristics.

The method is fast and inexpensive compared to other methods as it does not require involvement of real users, however it is important to note, that this method does not substitute for testing with real users.



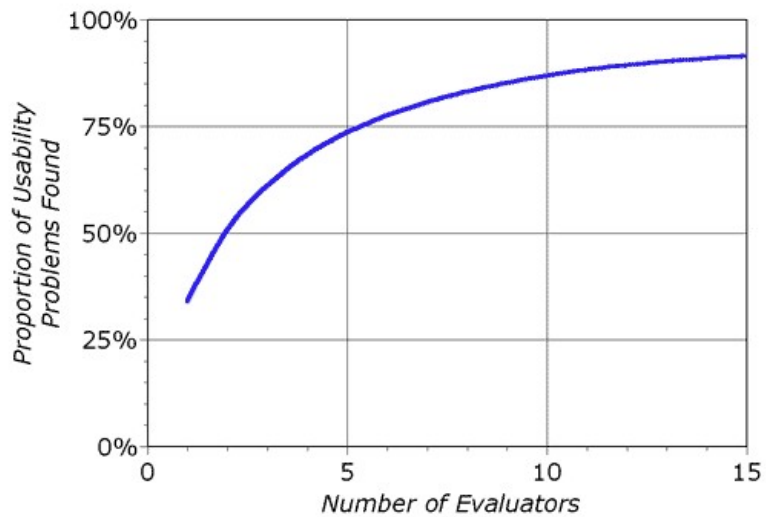
Pros of Heuristic Evaluation

- Heuristics can help highlight potential usability issues early in the design process.
- It is a fast and inexpensive tool compared with other methods involving real users.

Cons of Heuristic Evaluation

- Heuristic evaluation is based on assumptions about what “good” usability is. As heuristics are based on research, this is often true.
- The evaluations are no substitute for testing with real users.





Jakob Nielsen; [The Theory Behind Heuristic Evaluations](#), 1994,

Amount of evaluators

Heuristic evaluations work best when performed by a group of people, not just by one evaluator.

Ideally, **three to five people should independently evaluate the same interface.**



Exercise

— Heuristic evaluation

SELECT SYSTEM

Select the right system to evaluate

What system are you evaluating? *

☒ ArcEdit

☐ ECT

☐ ECS

Next

SAVE YOUR RESPONSES

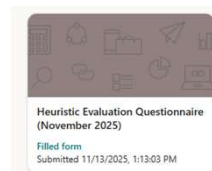
After submitting your evaluation, make sure to save your responses, as you will use the results later.

Your response was submitted.

Important thing you can do next

[Save my response](#)

[Submit another response](#)



Heuristic Evaluation Questionnaire (November 2025)



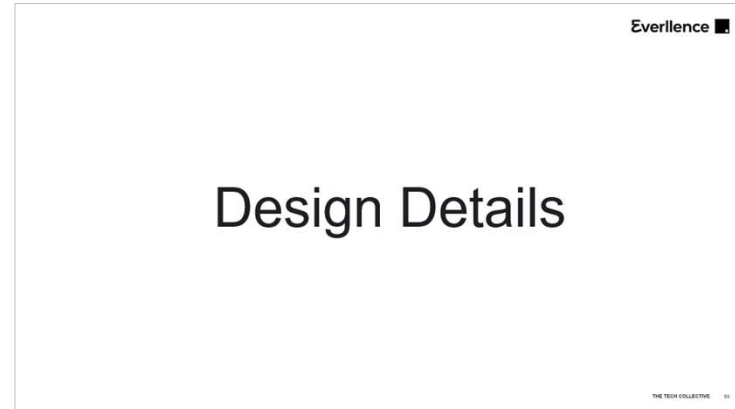
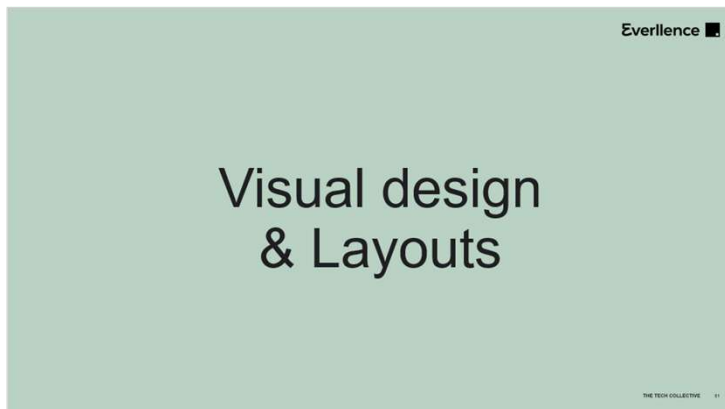
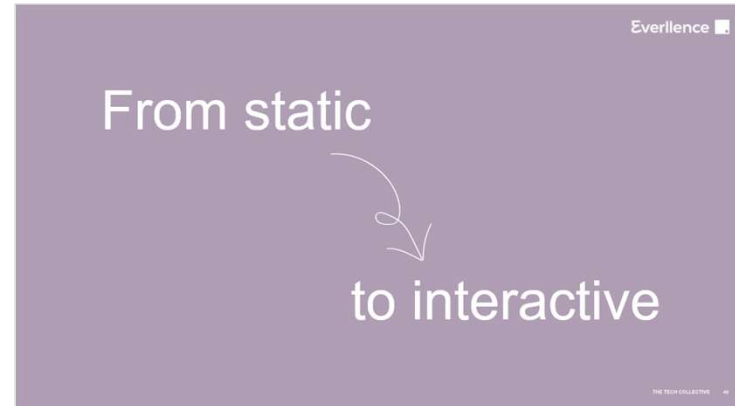
[Heuristic Evaluation Questionnaire \(November 2025\) – Fill out form](#)

Reflections: What do you think about the heuristics and this method?

UI Design

Tips & tricks

We have 4 UI design tips categories



Structuring... the details

Structuring

Design Systems

Atomic Design

...the details

Labels

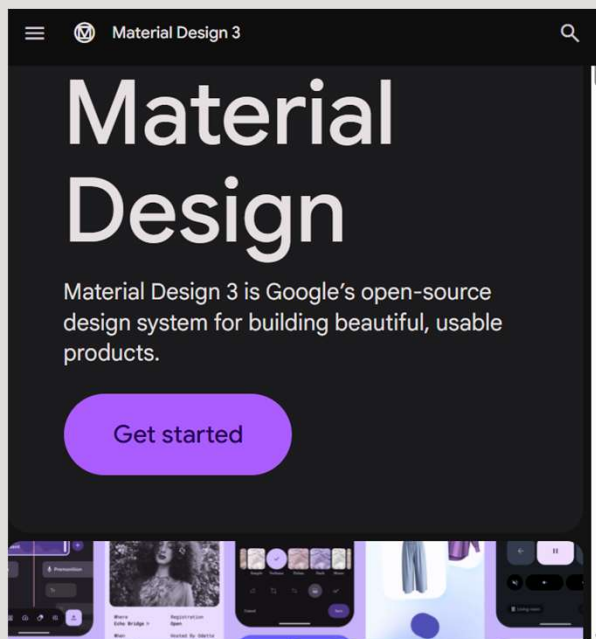
Colors and Fonts

Forms

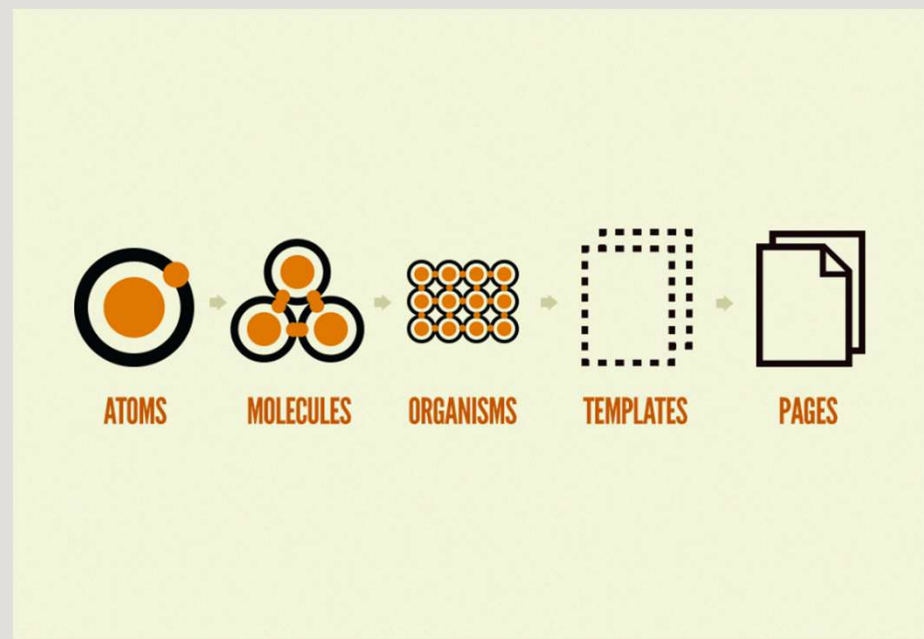
Buttons

Structuring

Design Systems



Atomic Design



Structuring

Design Systems

Atomic Design

...the details

Labels

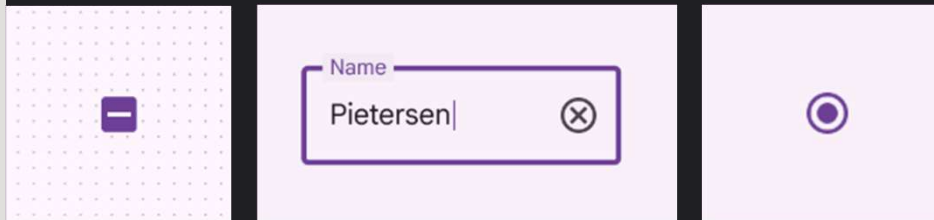
Colors and Fonts

Forms

Buttons

... the details

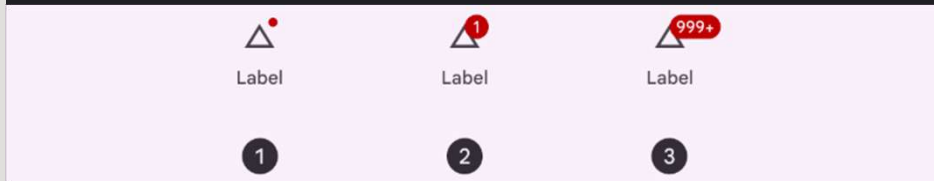
Forms



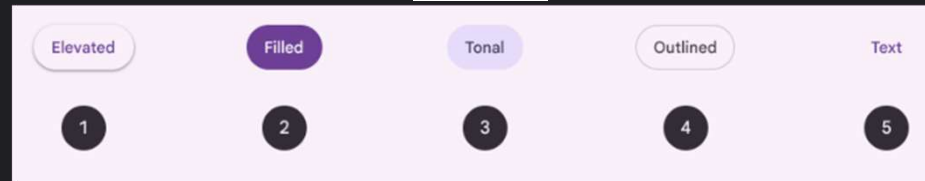
Colors and Fonts

Primary	Secondary	Tertiary	Error
On Primary	On Secondary	On Tertiary	On Error
Primary Container	Secondary Container	Tertiary Container	Error Container
On Primary Container	On Secondary Container	On Tertiary Container	On Error Container

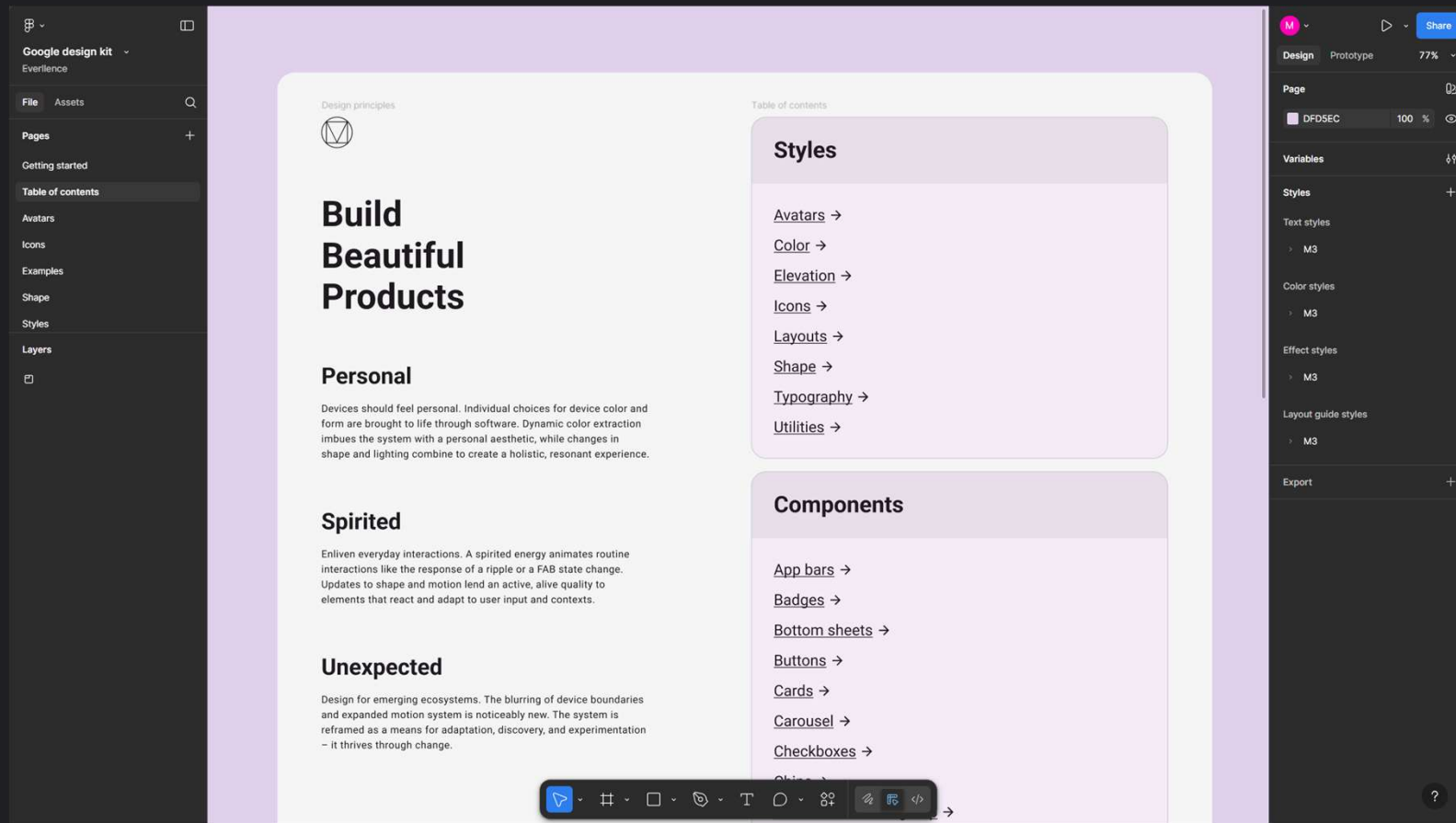
Labels



Buttons



... the details ... In Figma



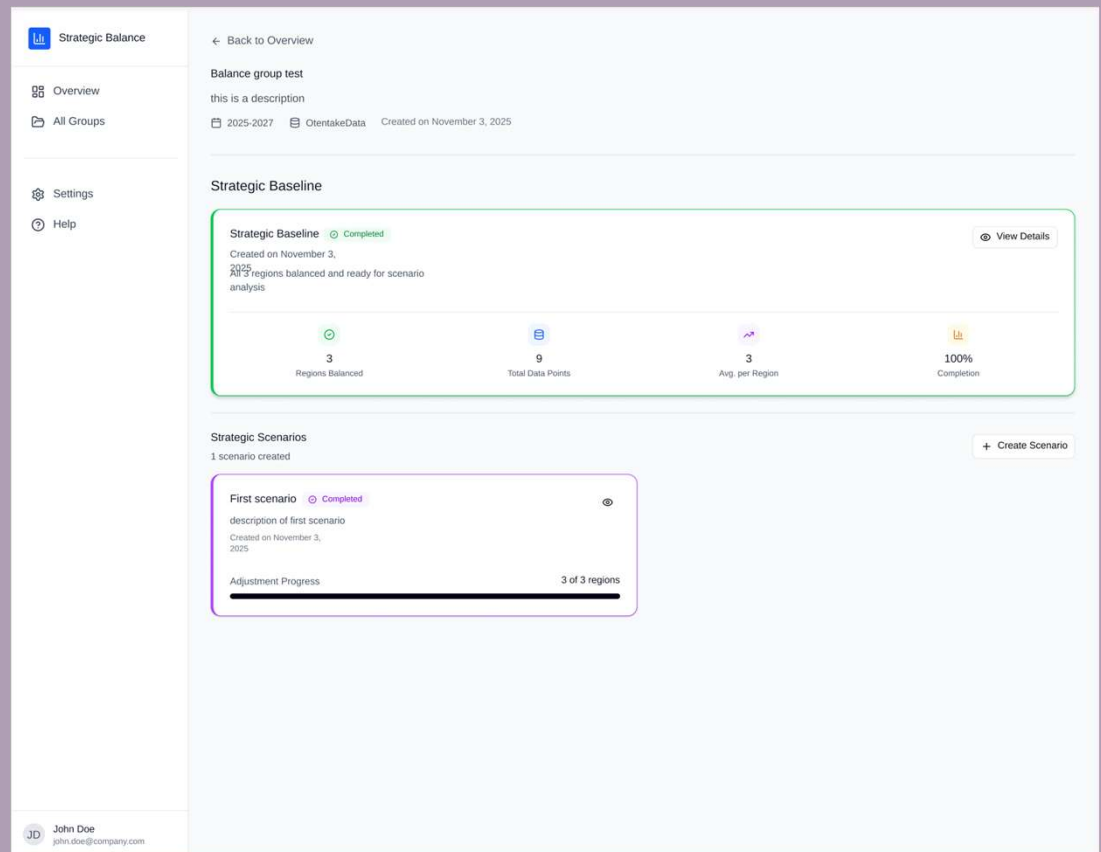
From static



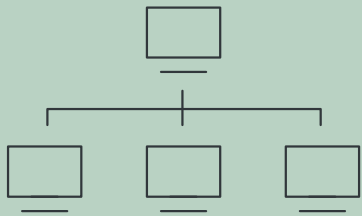
to interactive

Static Figma

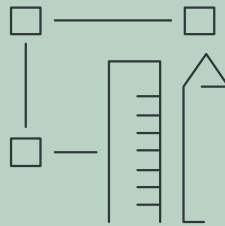
- Sunshine Scenarios



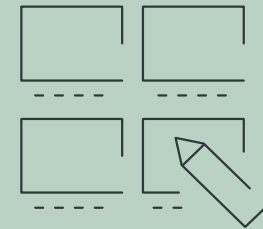
Visual design & Layouts



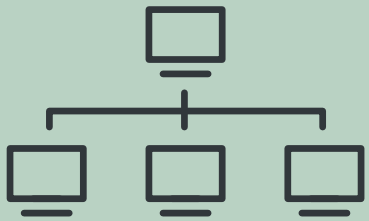
Visual Hierarchy



Design Patterns



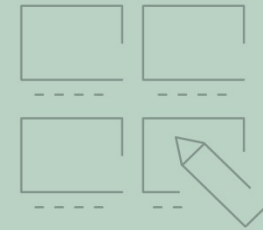
Gestalt Principles



Visual Hierarchy



Design Patterns



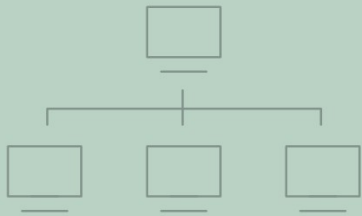
Gestalt Principles

And you will read this last

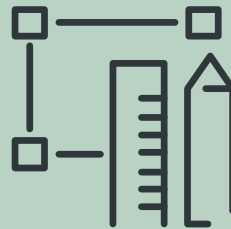
**You will read
this first**

And you will read this second

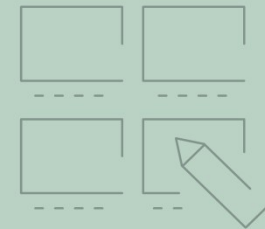
This one third



Visual
Hierarchy

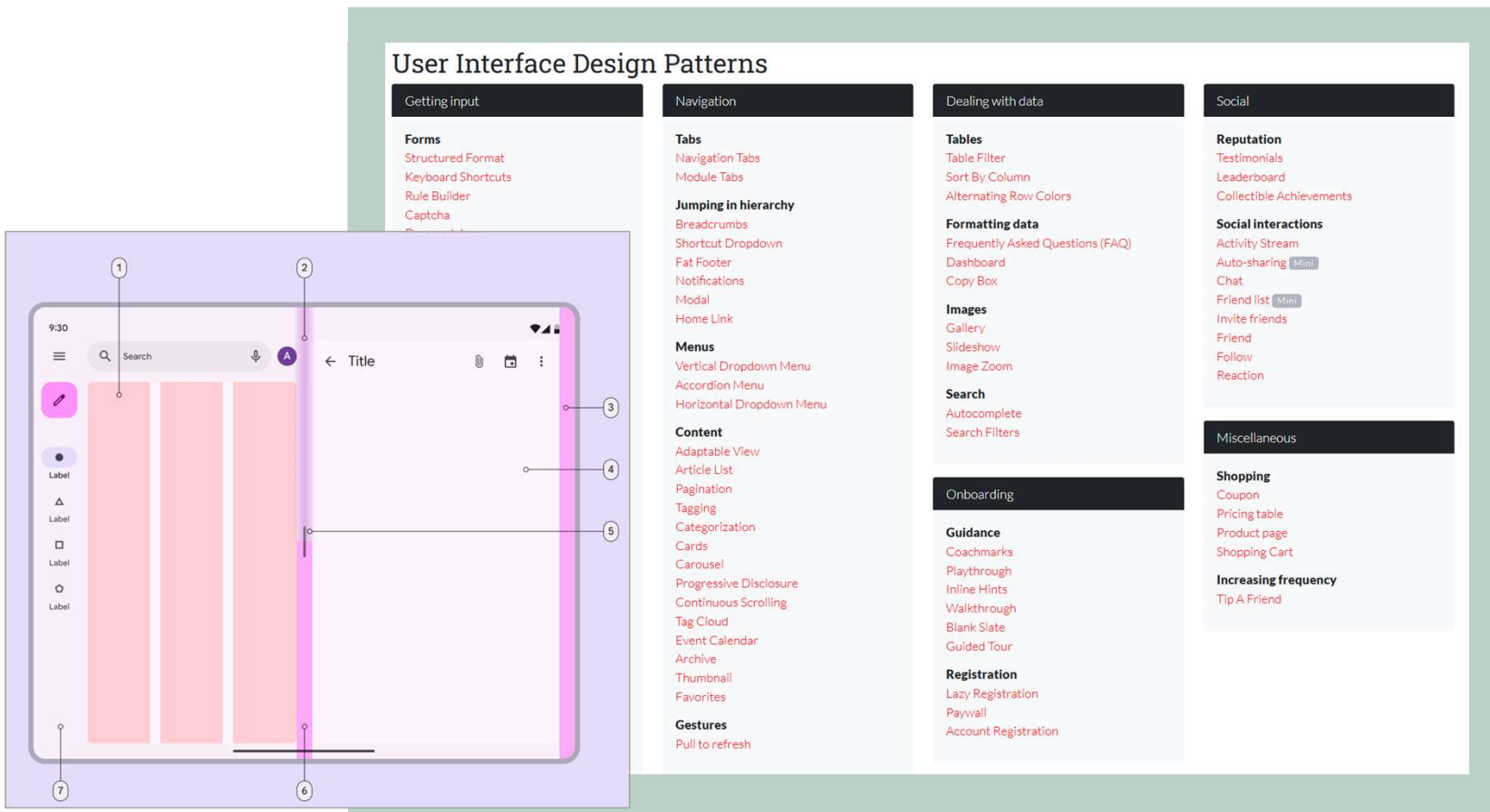


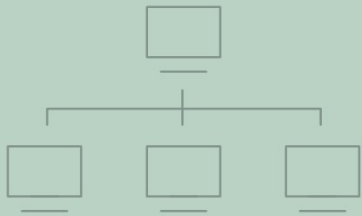
**Design
Patterns**



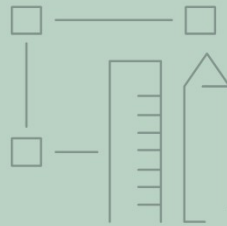
Gestalt
Principles

E.g.: Design patterns: Dealing with data





Visual
Hierarchy



Design
Patterns



**Gestalt
Principles**

Gestalt Principles

"Gestalt" is German for "**unified whole**".

Coined in the 1920's by German psychologists Max Wertheimer, Kurt Koffka, and Wolfgang Kohler. They identified **a set of laws that address the natural compulsion to find order in disorder**.

According to this, the mind "informs" what the eye sees by perceiving a series of individual elements as a whole.

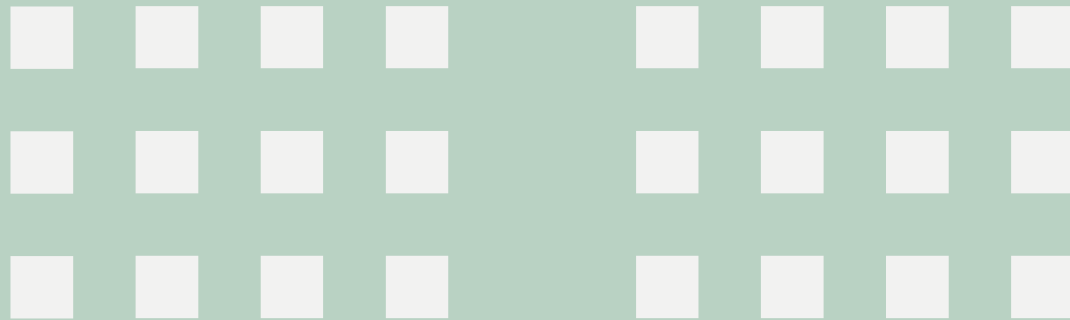
Interaction Design Foundation explains 12 different Gestalt principles, but we selected 3.



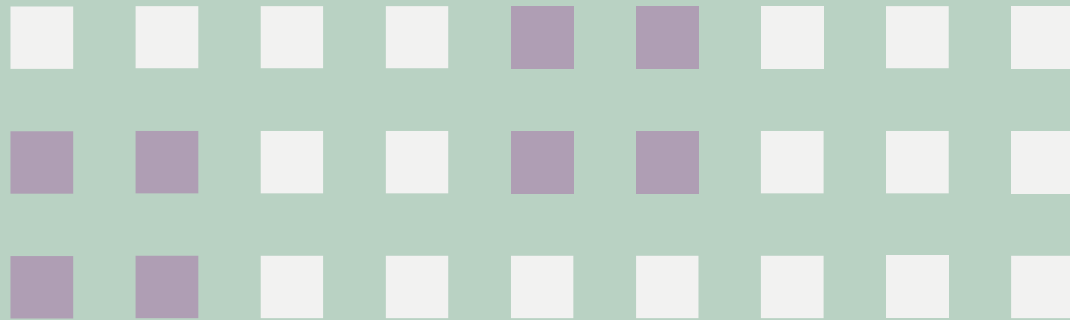
3: Common Region



5: Proximity

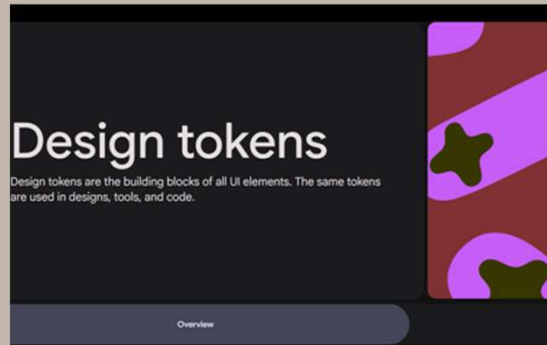


10: Similarity

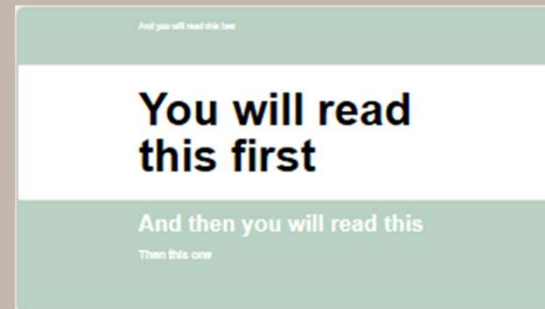


Recap on the UI design tips

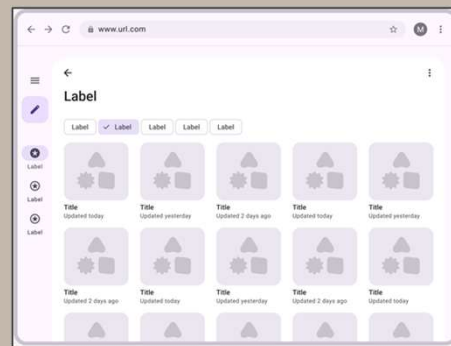
DESIGN SYSTEMS



VISUAL HIEARCHY



INTERACTIVE DESIGN



GESTALT PRINCIPLES



Design Details

“

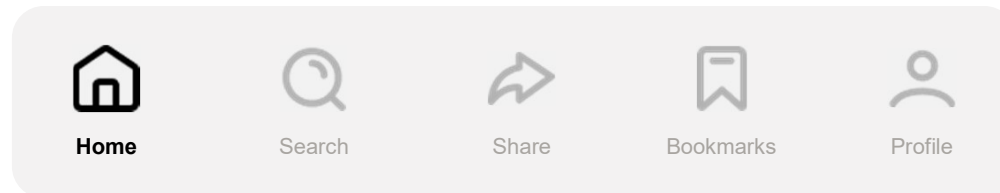
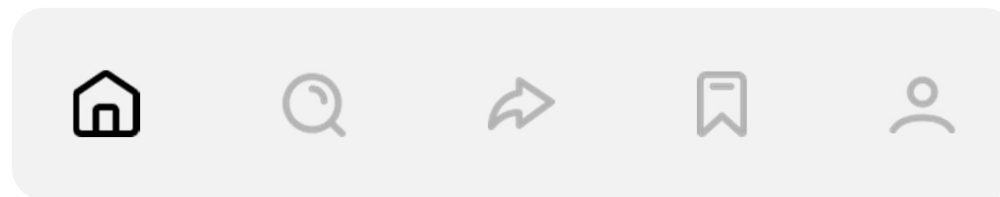
*I know this looks terrible,
but I have no idea why..*

”

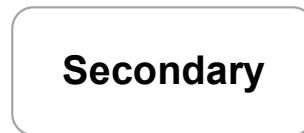
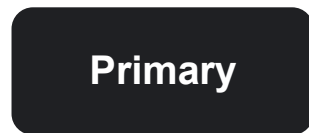
Adam Wathan

Don't confuse minimalism with simplicity

A



Use a single primary button
for the most important action



Tertiary

Don't rely on color alone as an indicator



Articles

Activities

About us



Articles

Activities

About us

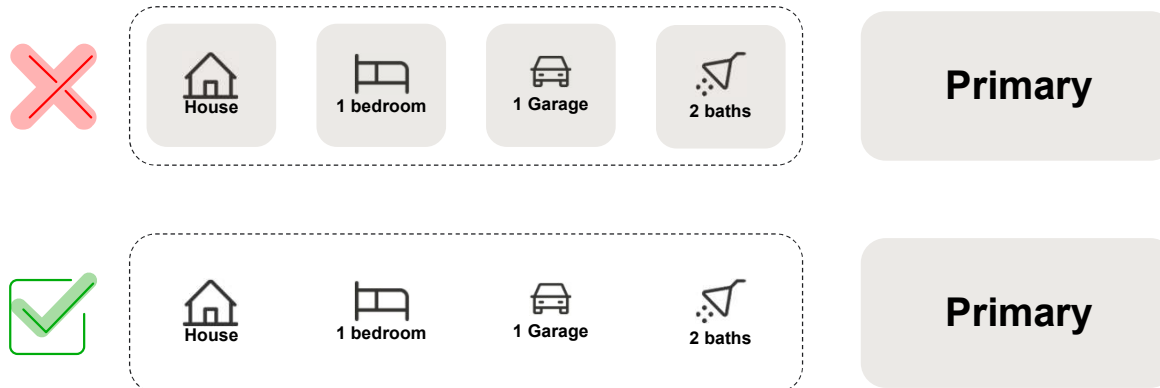
D

Space elements based on how closely related they are

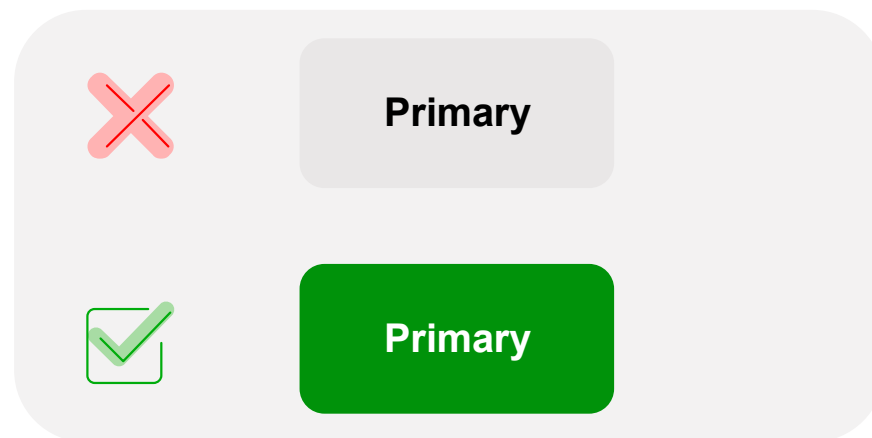
Use 8pt spacing grid:



Similar looking elements function similarly

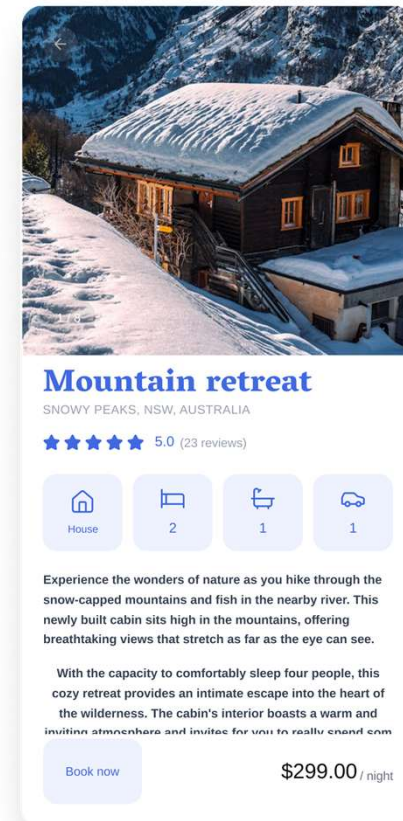


Use contrasts for accessibility



→ Applied Design Tips


What can we do?



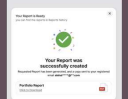
IT'S TIME
FOR LUNCH!

10 Usability Heuristics – Recap

1



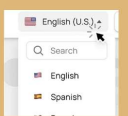
EXAMPLE
Utilize progress indicators to visually demonstrate ongoing processes




EXAMPLE
Implement notifications as direct feedback upon task completion to affirm successful actions.

Visibility of System Status

2




EXAMPLE
Optimize interface elements to reflect real-world conventions and analogies related to the context.



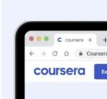
EXAMPLE
Highlighting text in an e-reading app is similar to highlighting text in a book.

Match Between the System & the Real World

3




EXAMPLE
Implement undo and redo functionalities to allow users to correct actions.



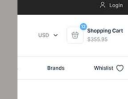
EXAMPLE
Make sure the exit is clearly labeled and discoverable.

User Control & Freedom

4



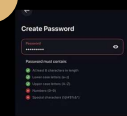
EXAMPLE
Having a design system that ensures uniformity across products.




EXAMPLE
Aligning designs with industry standards to leverage existing user familiarity and expectations.

Consistency & Standards

5



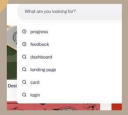
EXAMPLE
Establish constraints and defaults that guide users seamlessly through tasks.



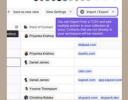
EXAMPLE
Prevent mistakes by removing memory burdens, supporting undo, and warning your users.

Error Prevention

6




EXAMPLE
Keeping frequently used options visible and easily accessible to users.



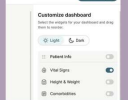
EXAMPLE
Offering contextual help through tooltips and hints, instead of giving users a long tutorial to memorize

Recognition Rather Than Recall

7



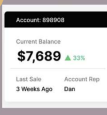
EXAMPLE
Incorporating shortcuts and gesture controls to enhance task efficiency for advanced users.




EXAMPLE
Allowing personalization options to tailor the interface to individual user workflows.

Flexibility & Efficiency of Use

8



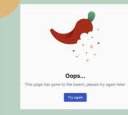
EXAMPLE
Maintaining a clear visual hierarchy to direct user attention meaningfully




EXAMPLE
Prioritizing content and task-critical elements in the user interface

Aesthetic & Minimalistic Design

9



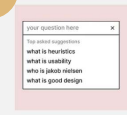
EXAMPLE
Using simple language to describe errors clearly, avoiding technical jargon or error codes




EXAMPLE
Offering suggestions or shortcuts to enable immediate error recovery.

Help Recognize, Diagnose, & Recover from Errors

10



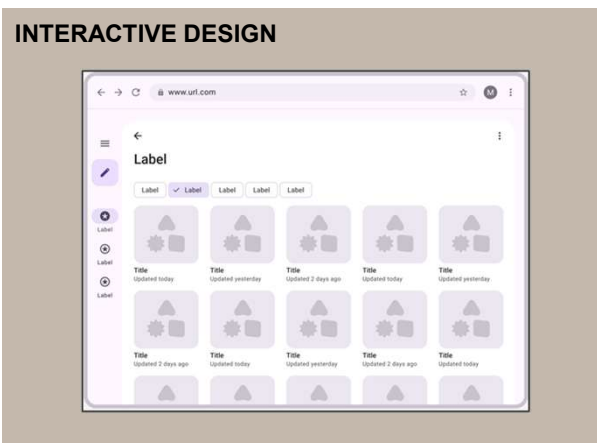
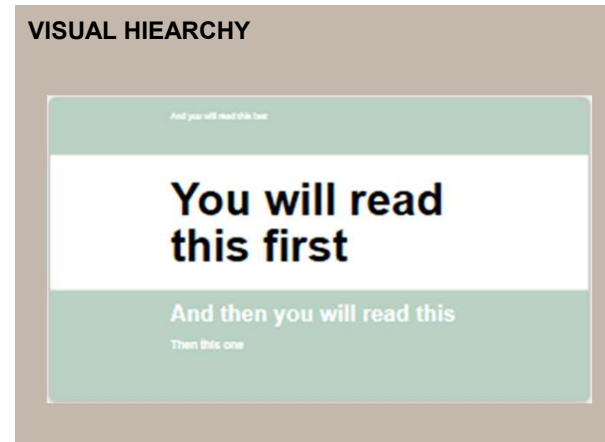
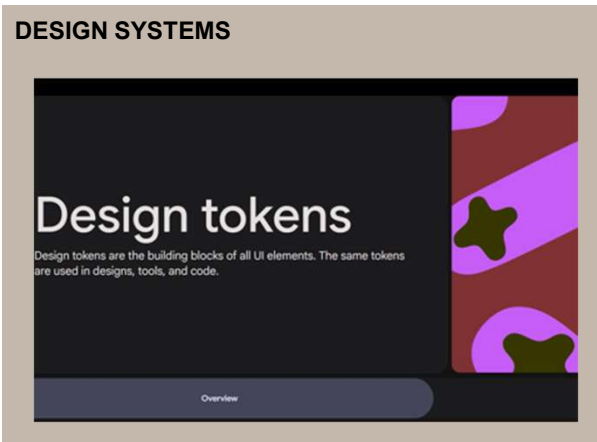
EXAMPLE
Having help documentation that is easily searchable and user-friendly.



EXAMPLE
Developing clear, concise FAQs and step-by-step guides to anticipate user questions and needs.

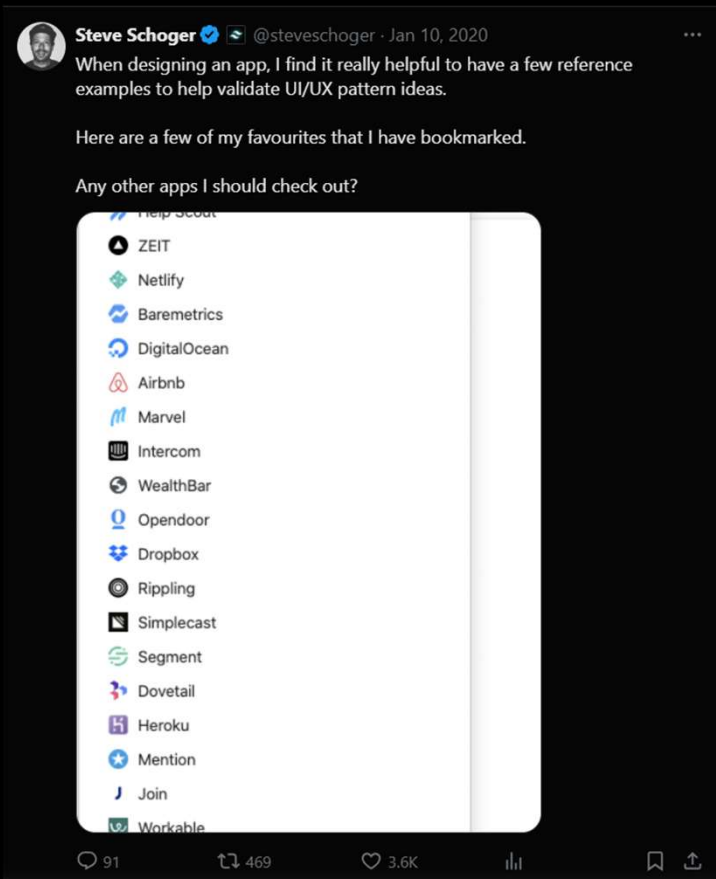
Help & Documentation

Recap on the UI design tips



Steal design ideas

Steal design ideas! *(But be careful..)*



[Steve Schoger on X](#)

Similar Sites and Problems

[Sentry.io](#)

[Port.io](#)

[Add you own sites]

The UX Industry

[UX Collective](#)

[UX Planet](#)

[Awwwards](#)



Energizer

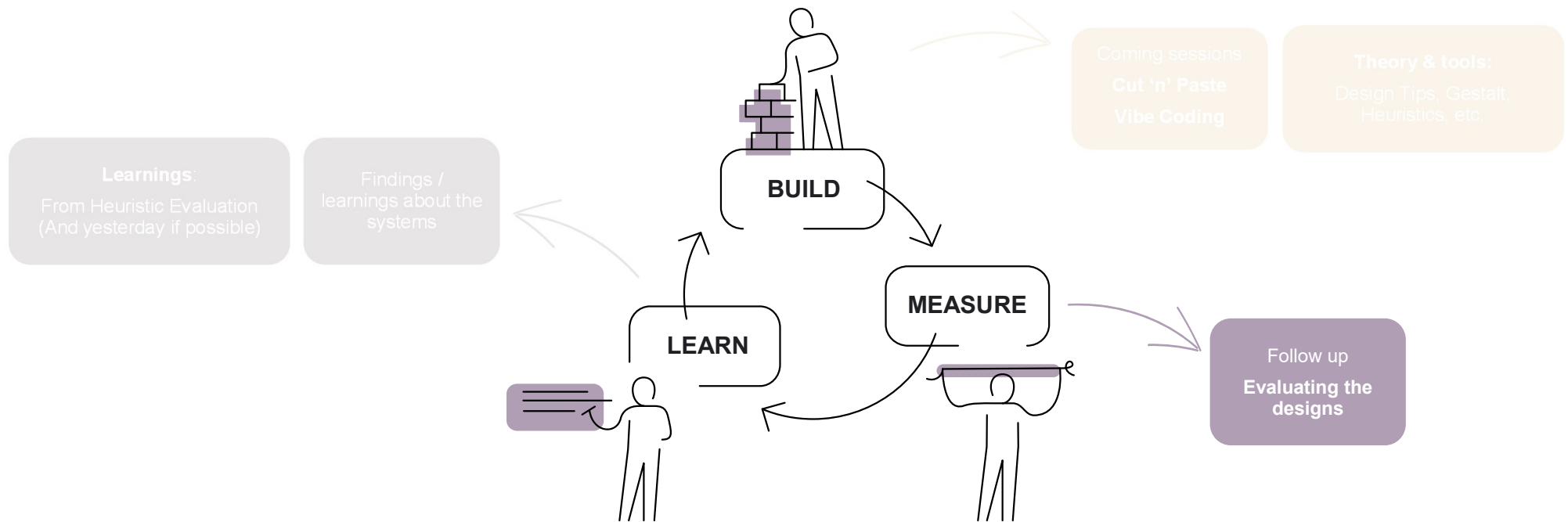


BOOTCAMP

Rapid prototyping

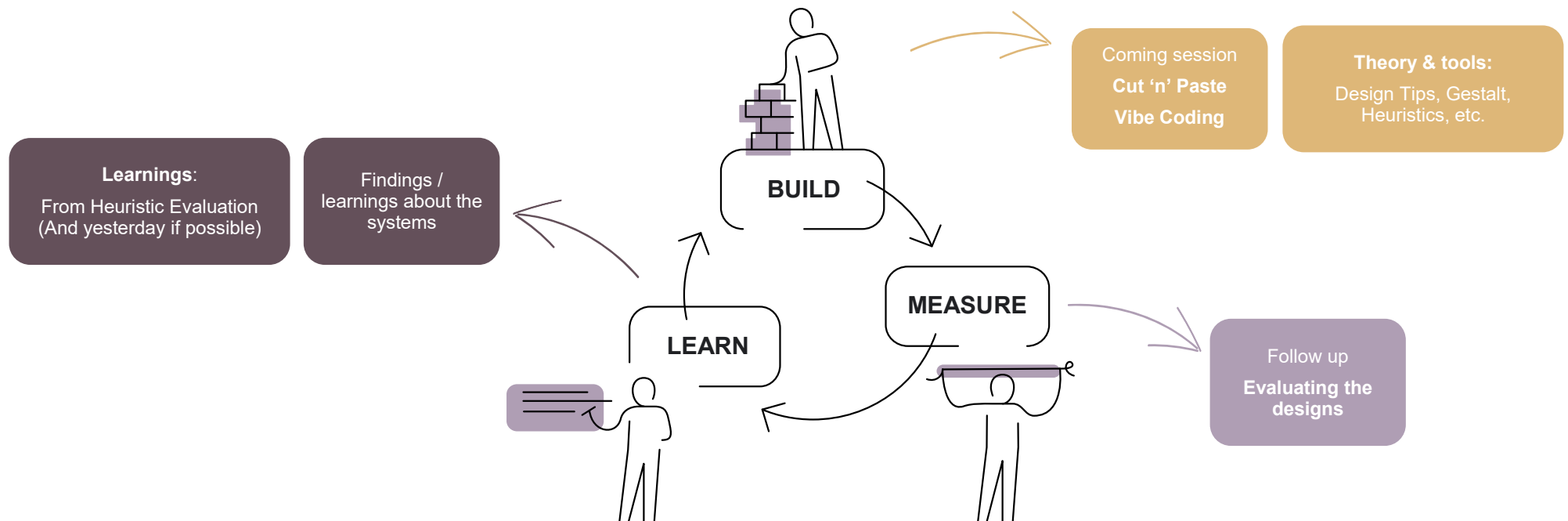
The bootcamp concept

The time has come to combine all the new theory and tools, with the new findings and learnings about your systems - **To try and ideate and create potential solutions**



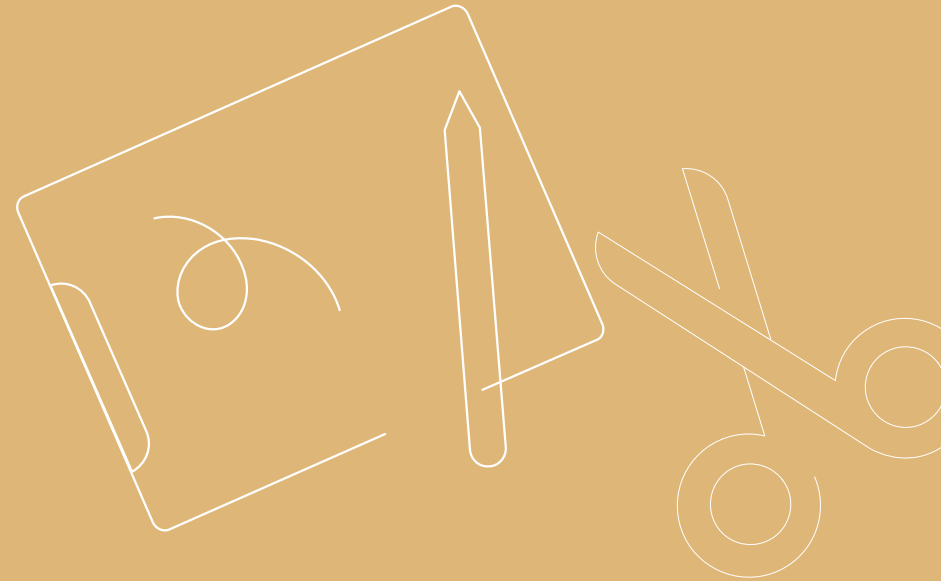
The bootcamp concept

The time has come to combine all the new theory and tools, with the new findings and learnings about your systems - **To try and ideate and create potential solutions**



We'll do this through 2 sessions with 2 different variations of “Rapid Prototyping”.

The first variation is analogue, with sketching



Variation 1

– Cut ‘n’ paste (analogue)

→ What is going to happen

01

Problem definition

Use your findings to guide the design

Use sketching and allow yourself to be creative and also create completely new components or designs

02

Solution Cut 'n' Paste

Cut, draw and rethink in low fidelity

Take the preprinted GUIs as your starting point

Use sketching and allow yourself to be creative and also create completely new components or designs

03

Design presentation

To guide the design

Which of your findings/learnings can be related to this?

Which of the Heuristics comes in to play and should be considered?

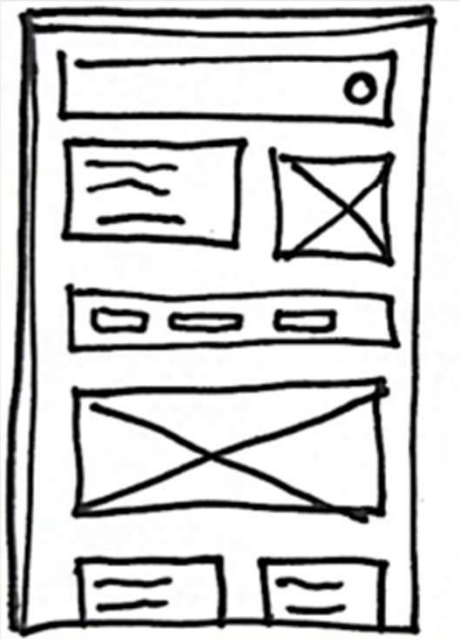
Which Design tips categories can you use?

Deliverable

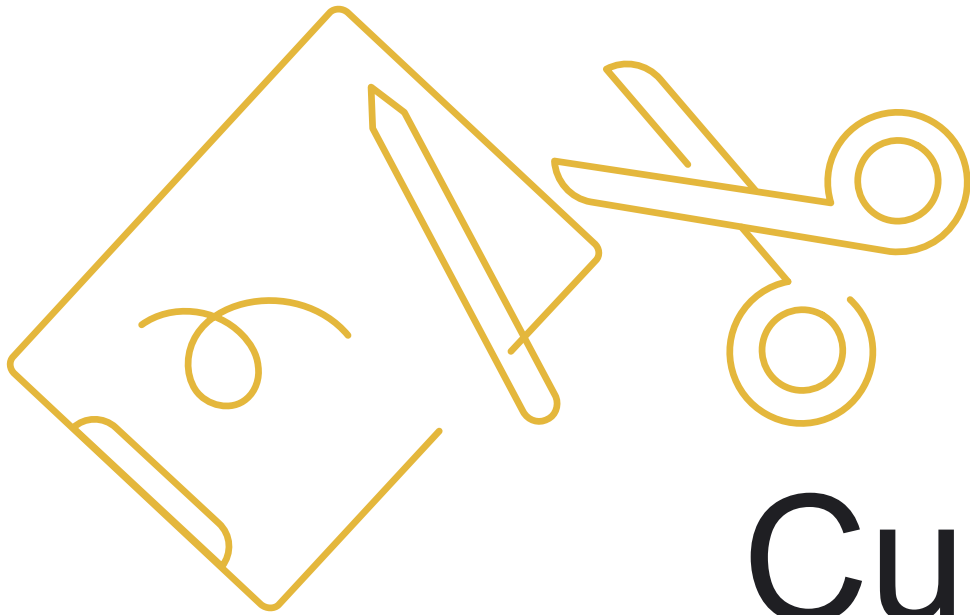
IDENTIFIED PROBLEM

The users struggle to...

PROPOSED SOLUTION



Description...



Cut 'n' Paste presentation


IT IS TIME FOR A
SHORT BREAK



SaaS Vibes

- A Short story



leo  @leojr94_ · 15. mar.

my saas was built with Cursor, zero hand written code

AI is no longer just an assistant, it's also the builder


Now, you can continue to whine about it or start building.

P.S. Yes, people pay for it

 80


 44

 613

 98 t



leo 
@leojr94_



guys, i'm under attack

ever since I started to share how I built my SaaS using Cursor

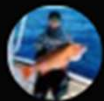
random thing are happening, maxed out usage on api keys, people
bypassing the subscription, creating random shit on db


as you know, I'm not technical so this is taking me longer that usual to
figure out


for now, I will stop sharing what I do publicly on X

there are just some weird ppl out there

2:34 PM · Mar 17, 2025 · **372.5K** Views



leo  @leojr94_ · 20. mar.

i'm shutting down my app 


Cursor just keeps breaking other parts of the code

you guys were right, I shouldn't have deployed unsecured code to production


I'll just rebuild it with Bubble, a more user friendly and secure platform for non techies like me

I appreciate everyone

[Vis mere](#)

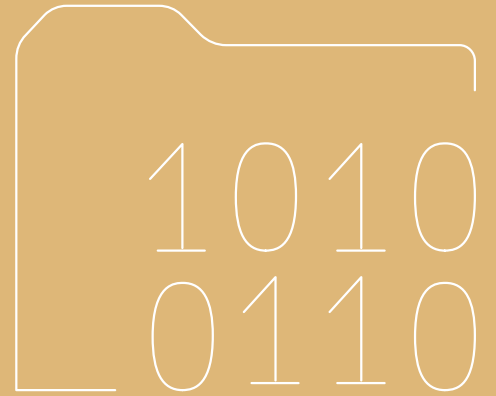
 574

 471

 4 t

 938 t



Variation 2

– Vibe Coding (digital)

Digital and AI-enabled Vibe coding

Everllence ■

A very new and modern approach. It can be a **good creative partner**, or a **source of inspiration**.

Usage example: Aggregate and summarize all your findings and ask it to find common solutions to these problems.

Mid-stage/ high fidelity

Gen-AI is useful for creating **quick and interactive mock-ups** of the potential solutions or detailed components, when you have an overall description and idea for the desired solution.

Can create a lot of *boilerplate* and “*low hanging fruit*”-UI.



Be mindful, about your AI-generated content,
before you put it into production!

→ **What is going to happen**

01

Gather findings

Gather your findings from both Think Aloud, Card Sorting, Heuristic Evaluation, and feedback from sketching and use for the prompt

02

Prepare Prompt

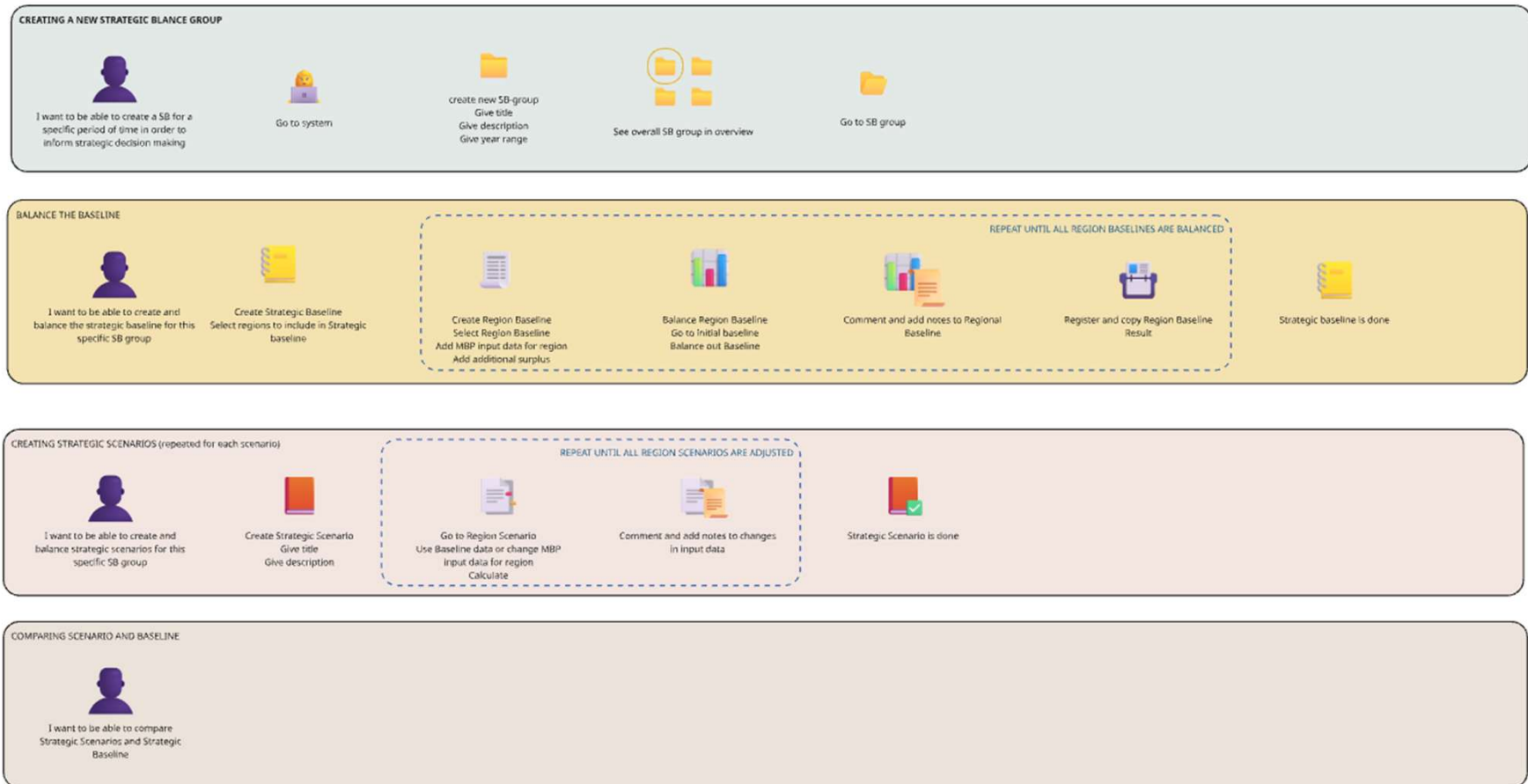
Find inspiration in the prompt guide

03

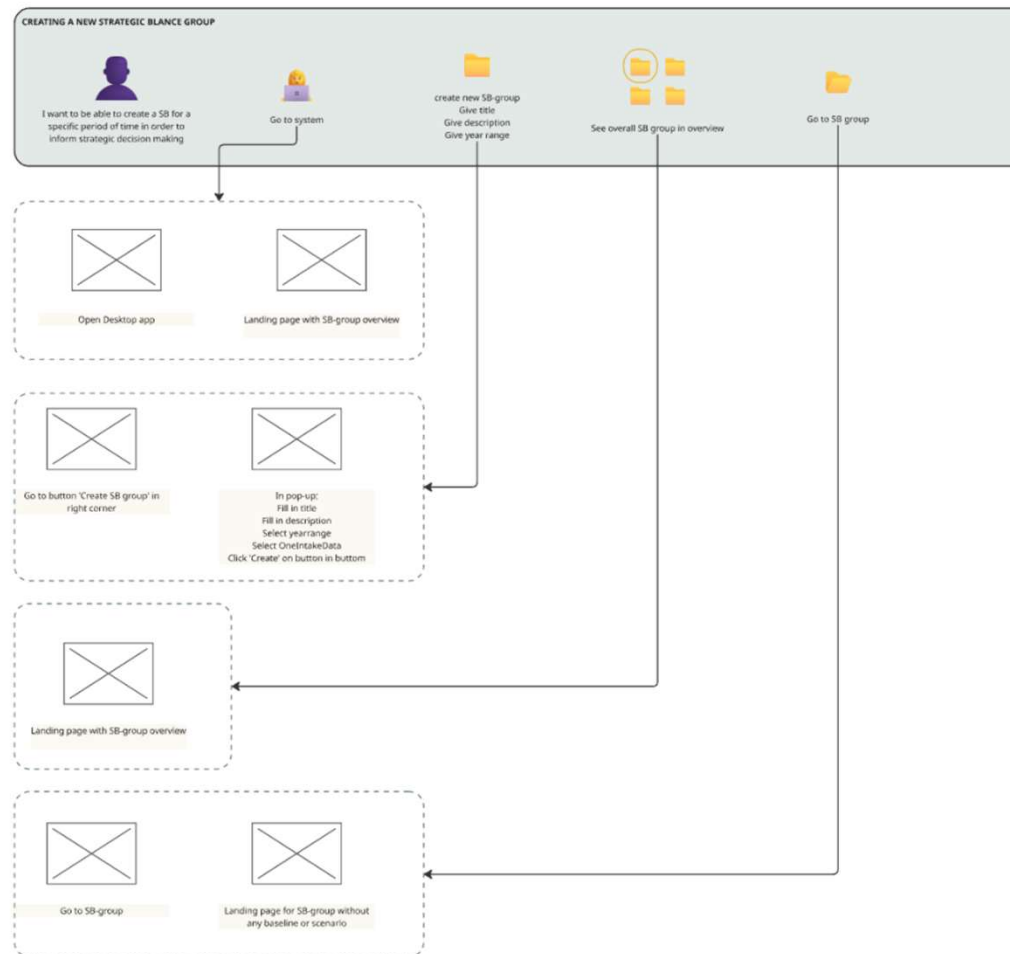
Play with Figma Make

Use your prompt in Figma Make and create a higher fidelity prototype with the tool

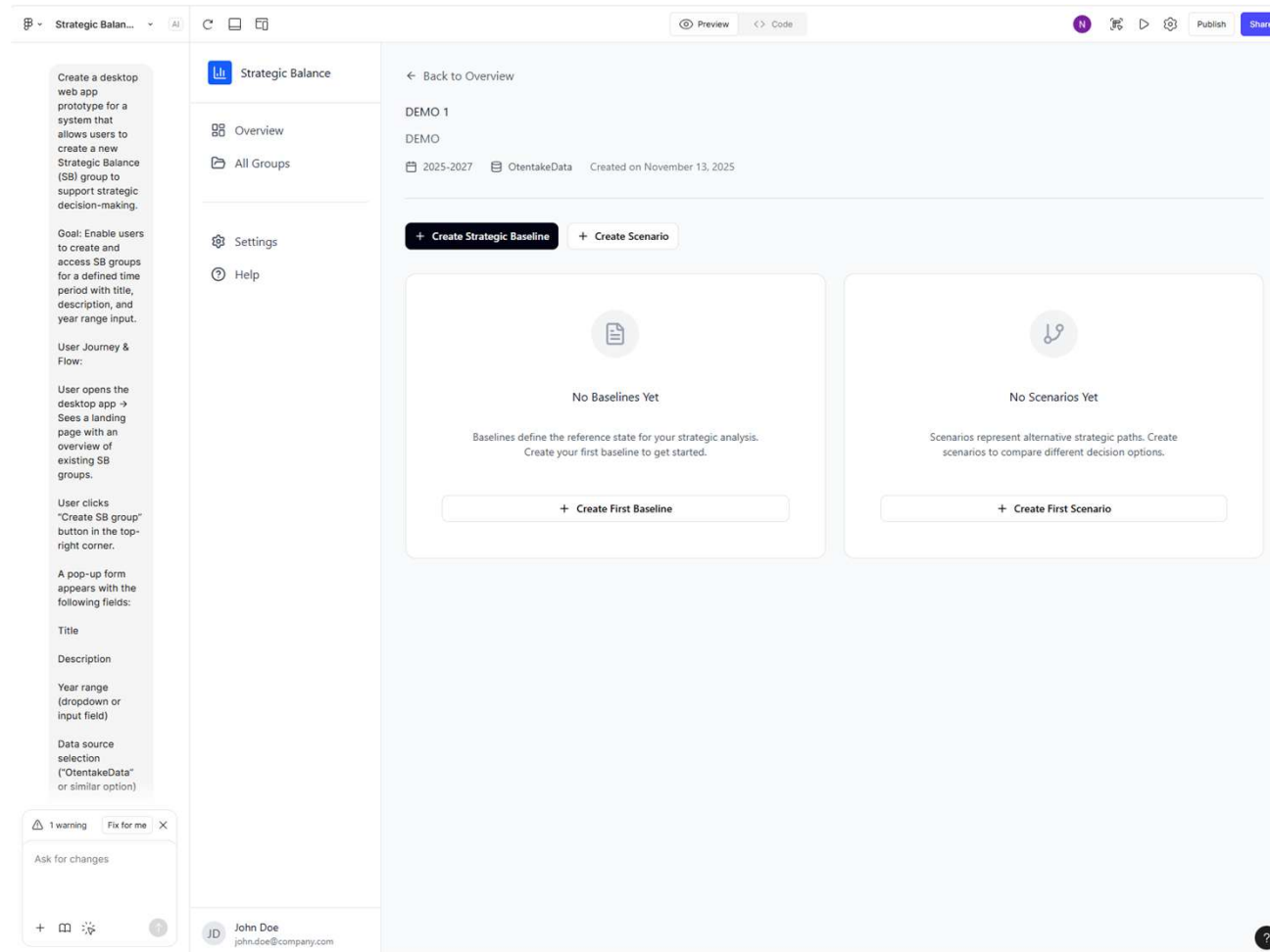
Prompting Figma Make – an example



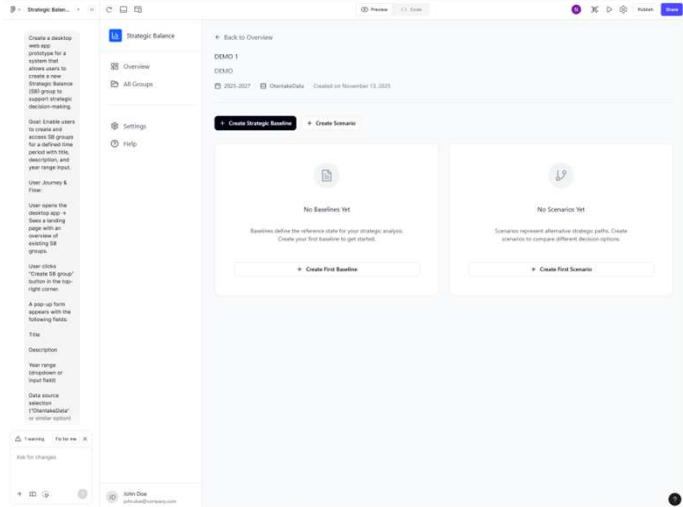
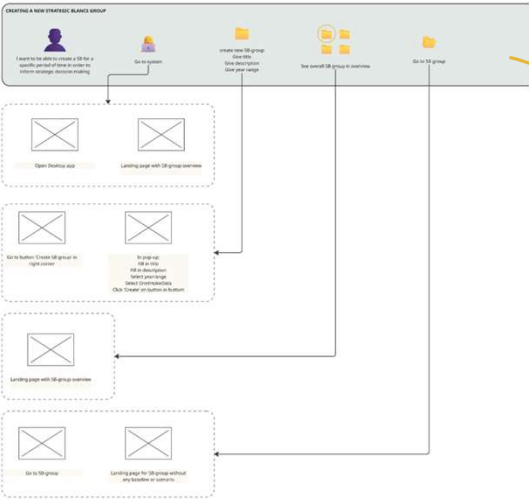
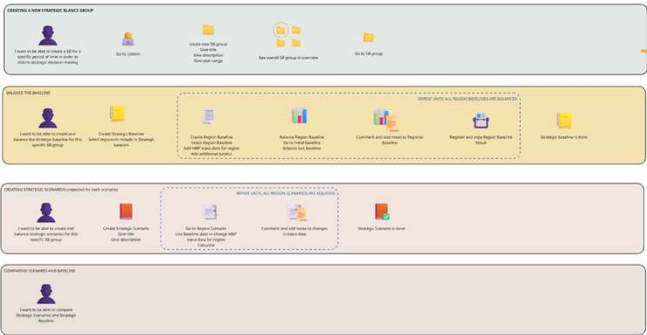
Prompting Figma Make – an example

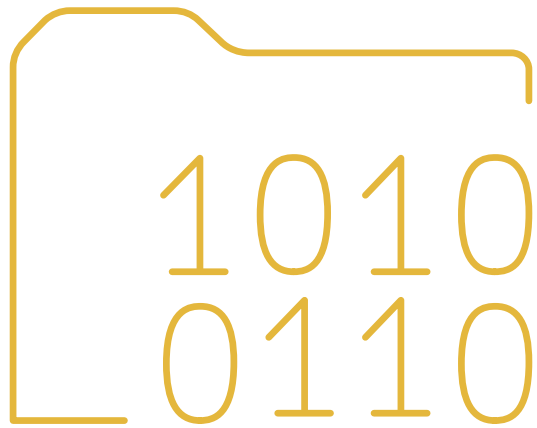


Prompting Figma Make – an example



Prompting Figma Make – an example





Vibe coding reflection

Let's revisit the expectations



Evaluation



THANK YOU



Mathias Nikolaj Nielsen
mnin@thetechcollective.eu



Nanna Lundbæk Sørensen
nals@thetechcollective.eu