From Problem to Prototype

A Design Thinking Sprint

> *"Design is not just what it looks like and feels like. Design is how it works."*— Steve Jobs

What is Design Thinking?

A Human-Centered Centered Approach Approach to Innovation

Design thinking is a process for creative problem-solving that starts with the people you're designing for. It's about understanding human needs and creating solutions that truly work.

This isn't a straight line process. We loop back as we learn. Today, we're sprinting through the first the first four stages.

The 5-Stage Design Process

Empathize

Understand your users deeply through observation and engagement

Define

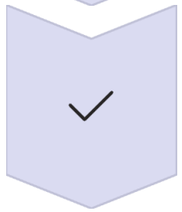
Frame the problem based on user needs and insights

Ideate

Generate a wide range of creative solutions

Prototype

Build testable representations of your ideas



Test

Learn from users and refine your solution

Phase 1: Empathize & Define

Empathize

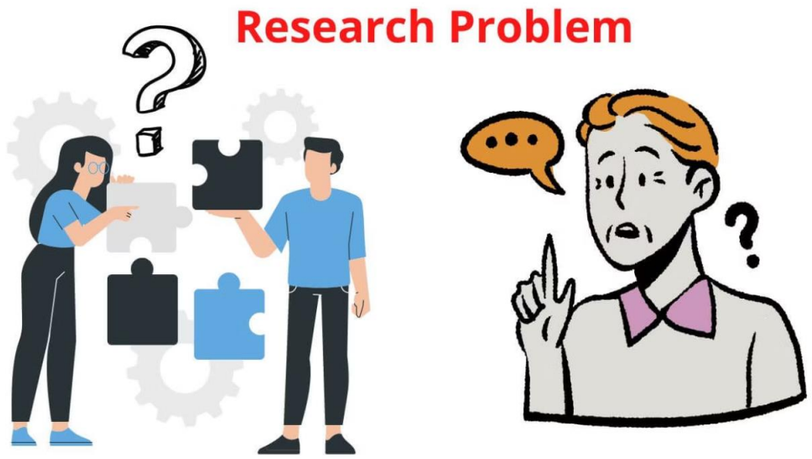
Understand the Human Need

Goal: Get to the root of the user's experience

Tool: The Empathy Map

What do they Say, Do, Think, and Feel?

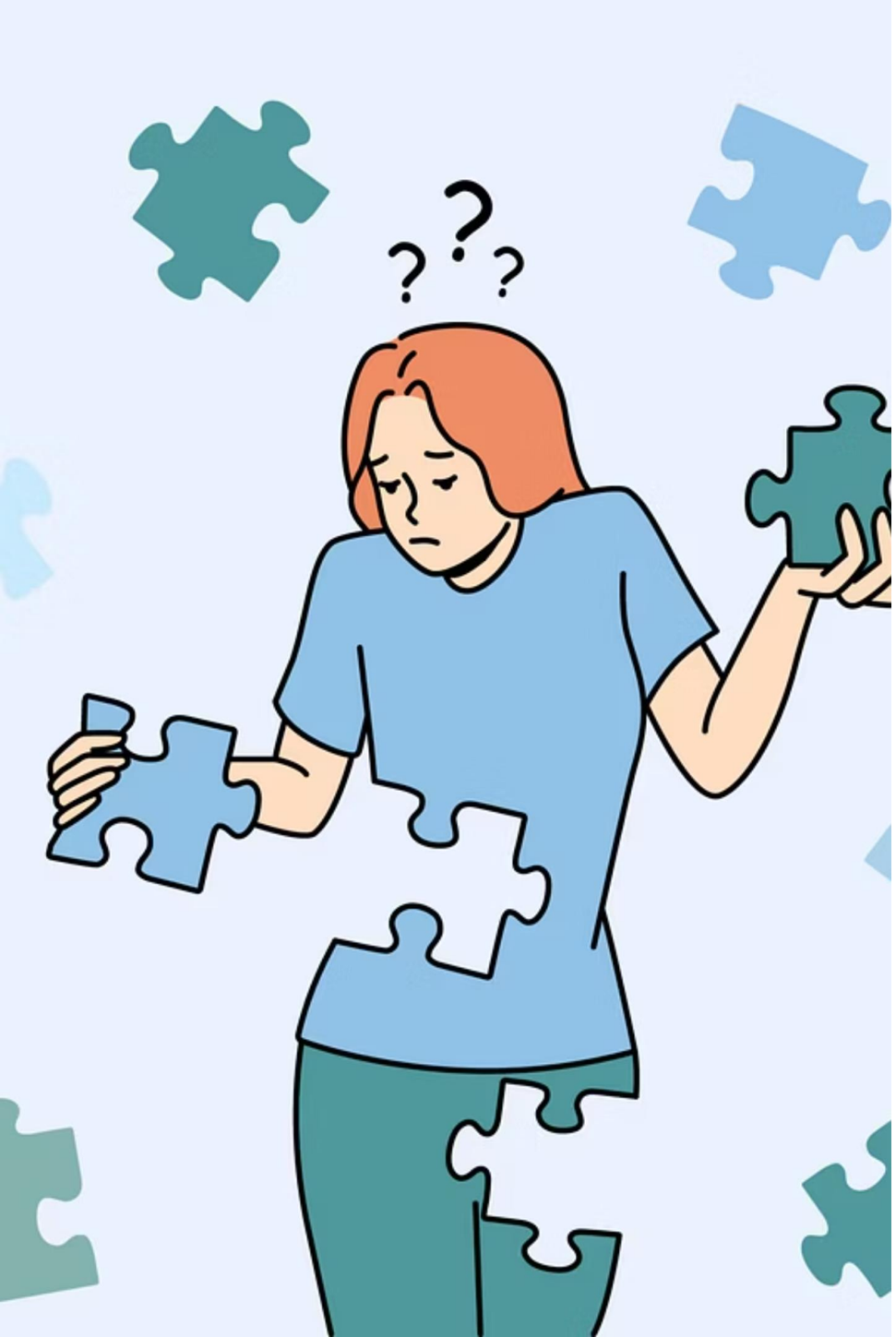
Define



Synthesize Into Action

Goal: Create a clear problem statement

> **[User]** needs a way to **[Need]** because [Surprising Insight]



Hands-On: The Problem Space

Your Mission: Find the "Why"

01

Pick an Annoying Object

Choose an everyday object that frustrates you—a you—a backpack, public door, remote control, or control, or kitchen appliance

02

Empathize with Users

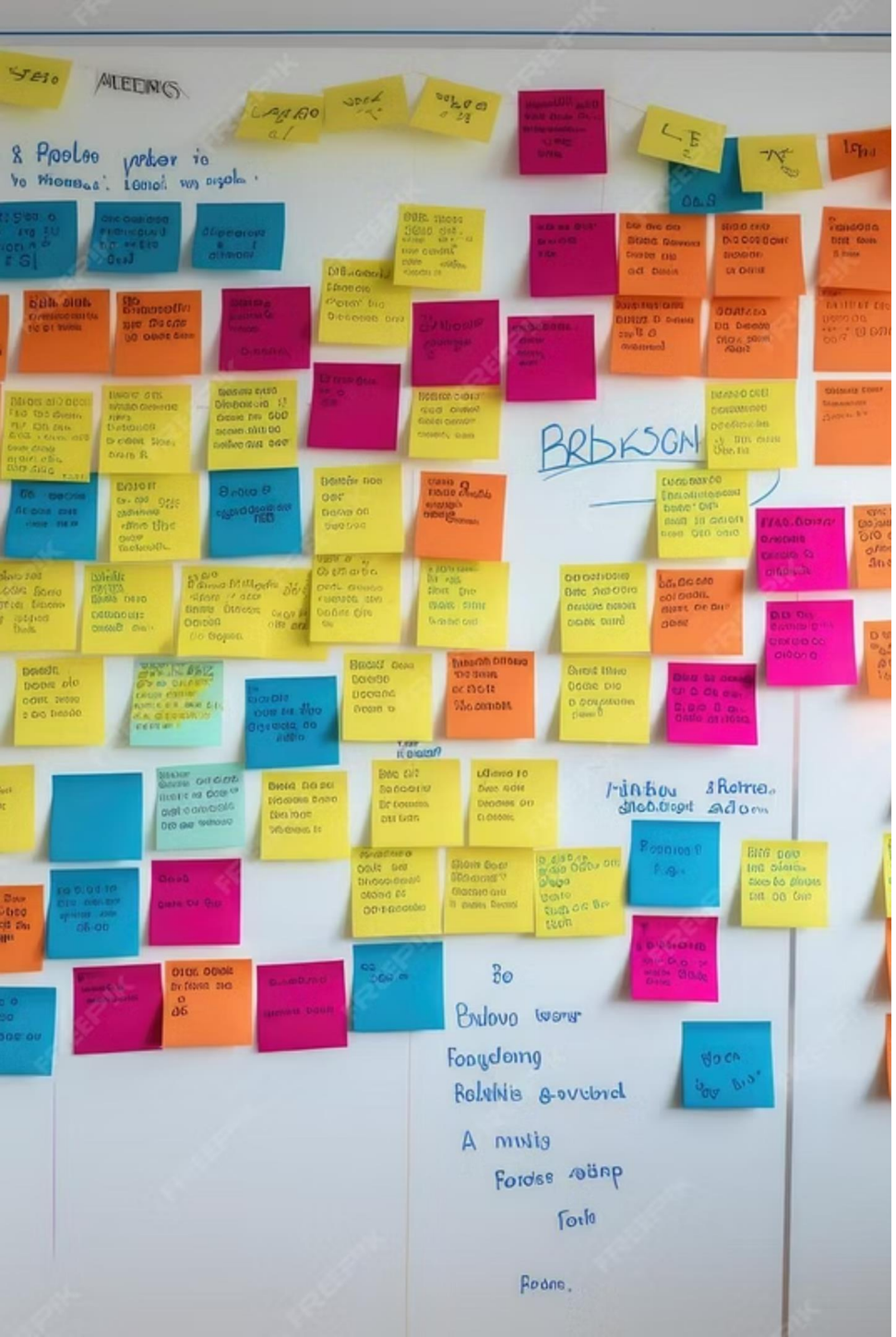
Interview 1-2 people about their experience. Fill out an Empathy Map for a typical user

03

Define the Problem

Write a single, clear Problem Statement using our formula

Time: 15 minutes for this activity



Phase 2: Ideate & Select

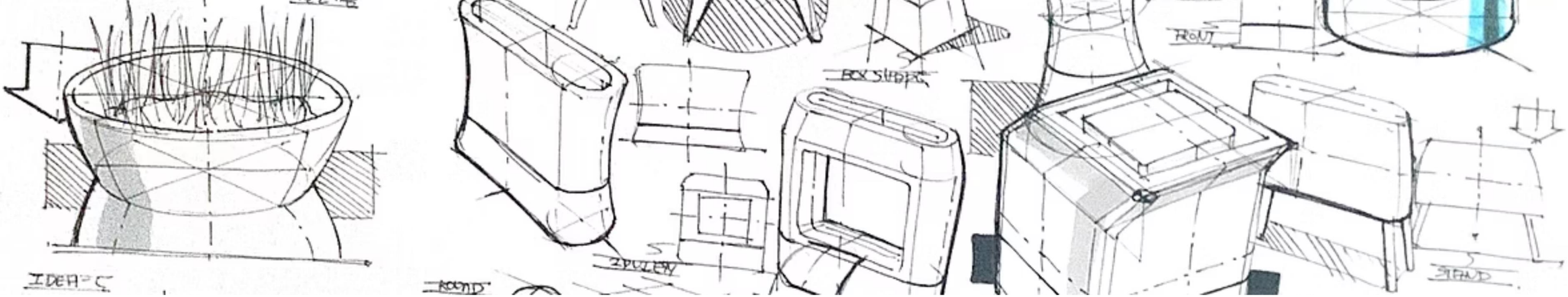
Generate a Universe of Solutions

Ideation Rules

- **Quantity over Quality!** Aim for volume
- **Defer judgment** — no criticism during ideation
- **Encourage wild ideas** — think outside the box
- **Build on others** — "Yes, and..." mentality

Selection Criteria

- **Feasibility:** Can we build it?
- **Desirability:** Do users want it? it?
- **Viability:** Is it practical?



Communicating Your Idea: Sketching

A Sketch is a Conversation Starter

It's NOT About Art

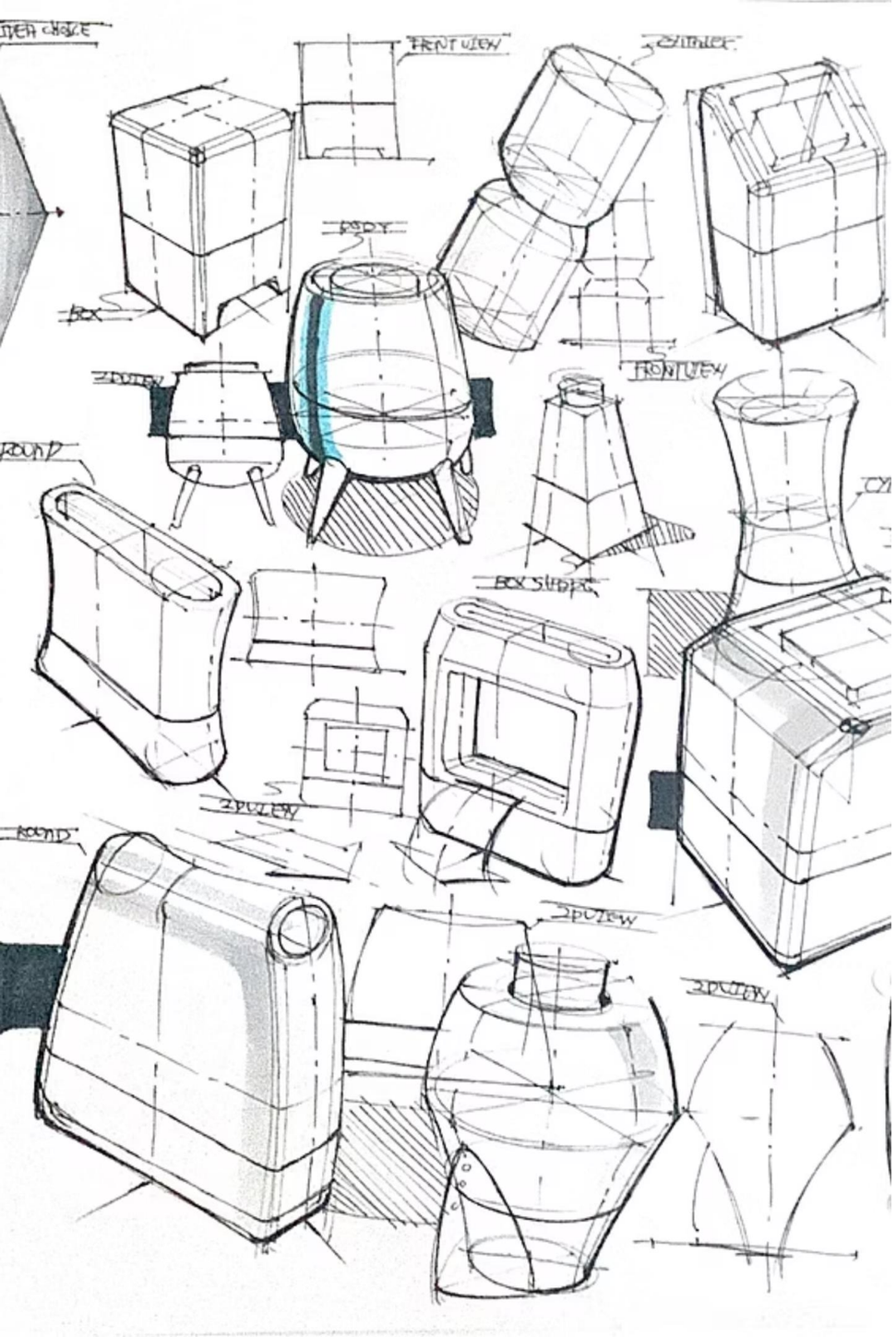
Use basic shapes, lines, and arrows. Focus on communication, not perfection.

Annotate Everything

Add labels like "This part rotates," "Material: plastic," or "User presses here."

Keep It Simple

A clear, simple sketch beats a complex drawing every time. Clarity wins.



Hands-On: The Solution Sprint

Your Week Mission: Ideate & Illustrate

1

Ideate (10 min)

Using your Problem Statement, set a timer and generate **10+ ideas**. Go wild and think big! think big!

2

Sketch (15 min)

Choose the **3 most promising ideas** and create clear, annotated sketches for each concept

3

Select (5 min)

Pick your **favorite concept** and write one sentence justifying your choice

Total Time: 30 minutes for this complete activity

Bringing It All Together

You've Just Completed a Design Sprint!

1. **Empathy Map**

   Deep understanding of user experience and emotions

2. **Problem Statement**

   Clear, actionable definition of the challenge to solve

3. **10+ Creative Ideas**

   Diverse range of potential solutions generated through ideation

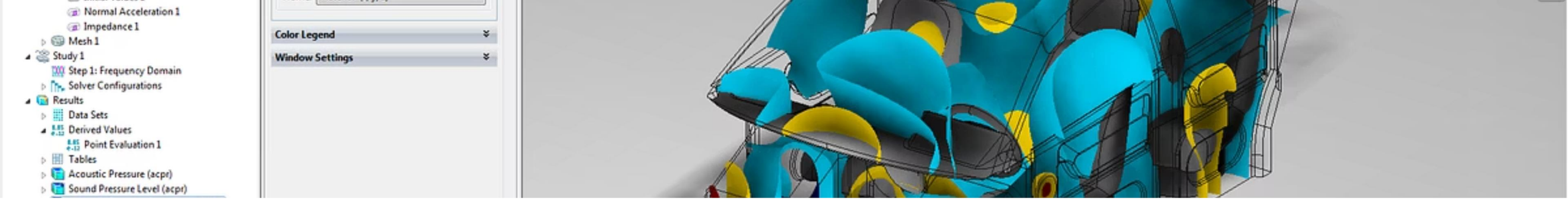
4. **3 Annotated Sketches**

   Visual communication of your most promising concepts

5. **Selected Concept**

   Your chosen solution with clear justification based on our criteria

This foundation will support every project you build in this program.



What's Next?

From Concept to Creation

Your Journey Forward

Your validated idea now needs a precise digital form. We'll begin by transforming your sketched concept into a **2D design**, which will serve as the foundation for your future **3D model**.

Next Week: 2D Design Fundamentals — Learn to turn your selected concept into an accurate 2D digital accurate 2D digital drawing using professional design tools. This step helps refine dimensions, structure, dimensions, structure, and layout before moving into 3D modeling.

Remember: Design thinking is iterative. Every "failure" is actually valuable learning that brings you closer to the right solution.

Questions & Discussion

What challenges did you face during the sprint? Which phase felt most natural? How might you apply this process to future projects?

IMPORTANT:
Install
CorelDraw Software

CorelDRAW