

CS-639 – Interaction Design Studio

Design Elements & Principles

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Welcome Back!

- **Last week:** What is interaction design?
- **This week:** How **design elements** shape clarity, usability, and delight
- **Focus:** Building blocks, designing from the ground up, building our design muscle

Why Visual Design?

- Visual design is not just “making it pretty”
- It **directs attention**, builds **structure**, and sets **tone**
- In digital interaction, visual decisions are interaction decisions

Design Elements & Principles

What you use vs. how you use it

Elements are the **raw materials** — the visual building blocks like line, shape, and color.

Principles are the **rules of arrangement** — how we compose those elements to create clarity, balance, and meaning.

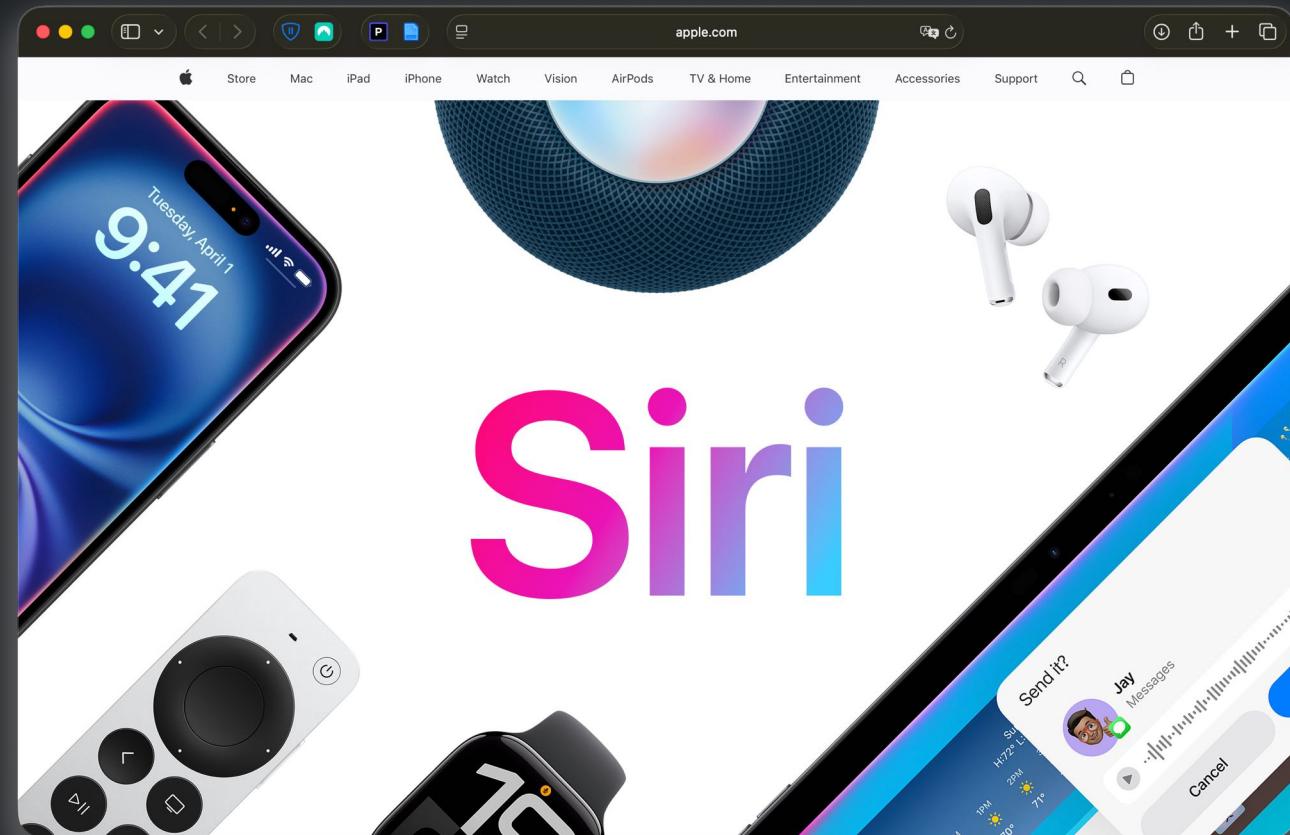


Let's Deconstruct a Design

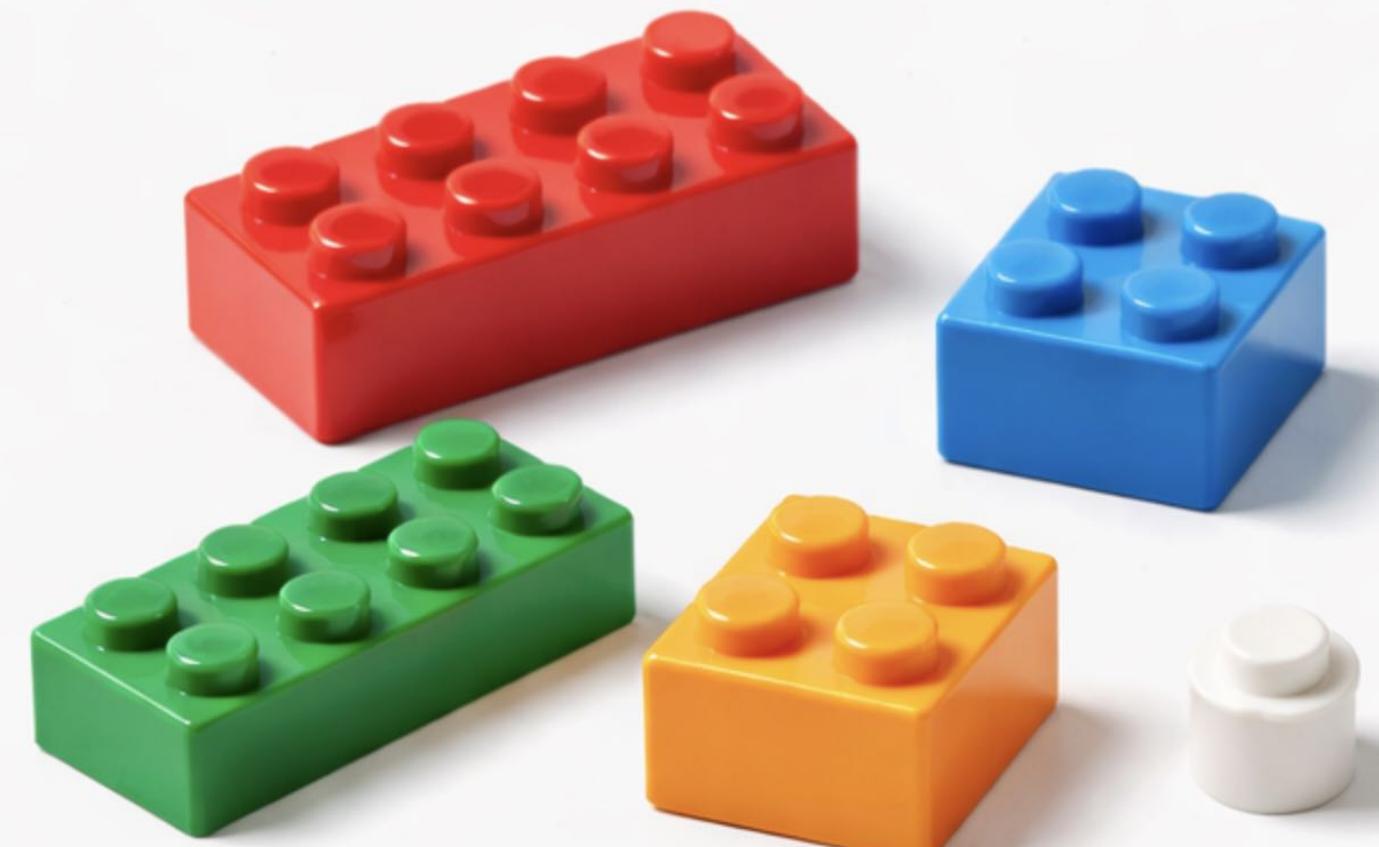
Example: A Modern Interface

The Siri webpage:

- What draws your attention first?
- Why does it feel balanced or clear?
- What's working or not?

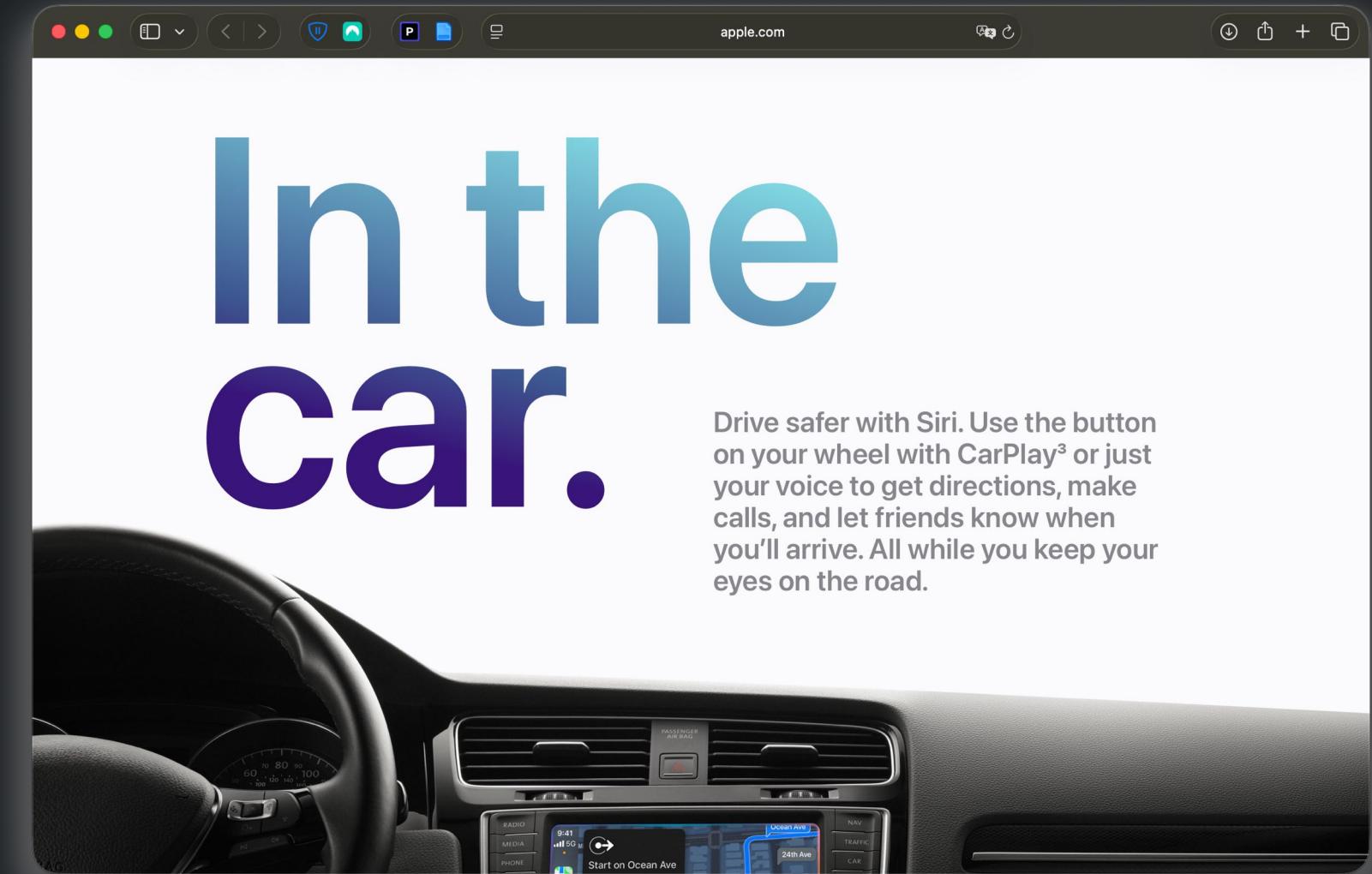


Design Elements



Space

Space is the canvas. It creates grouping and clarity through negative space.



Line

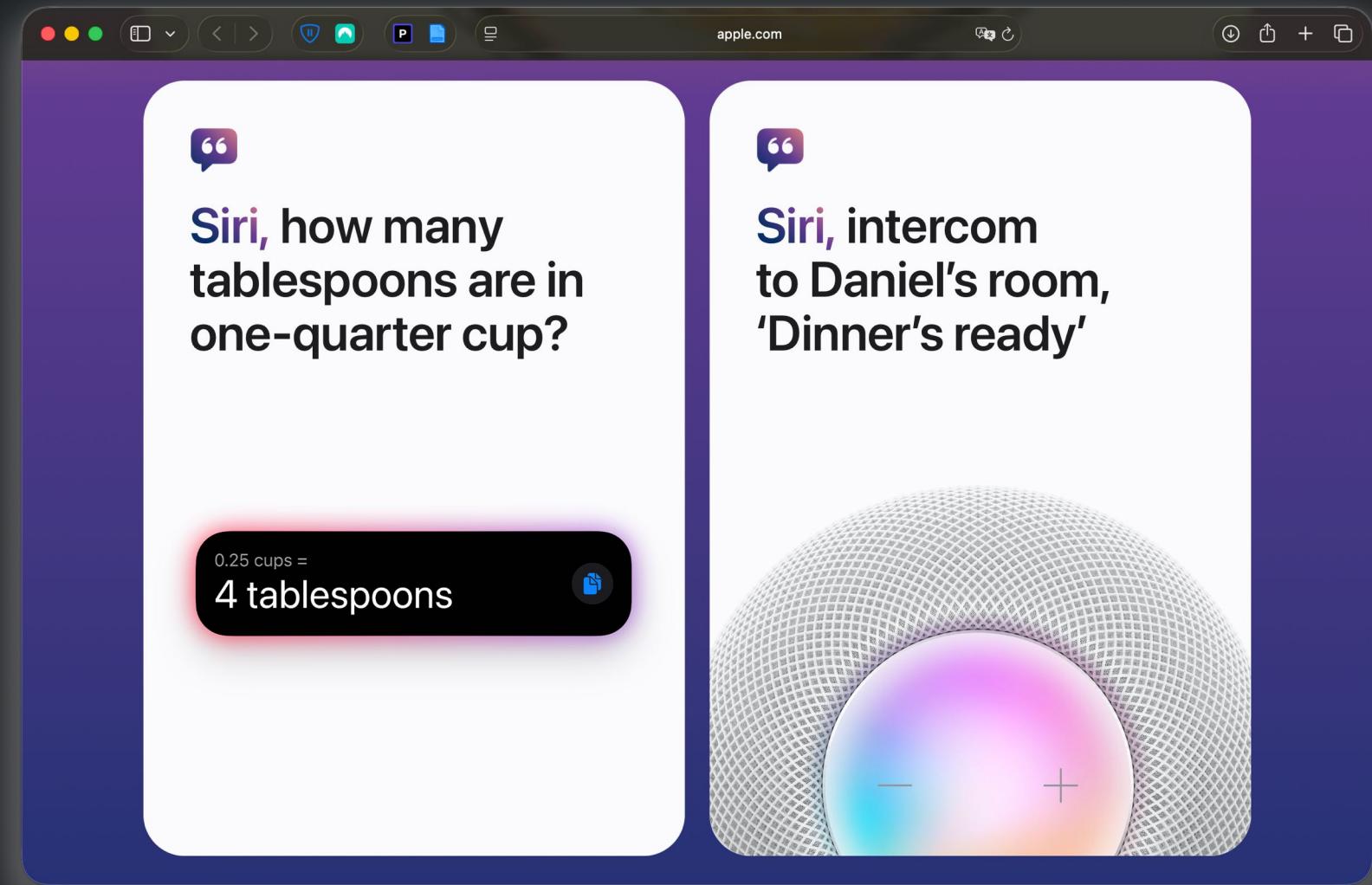
Lines divide, emphasize, or connect. Not always visible!



**Get everyday tasks done
using only your voice.**

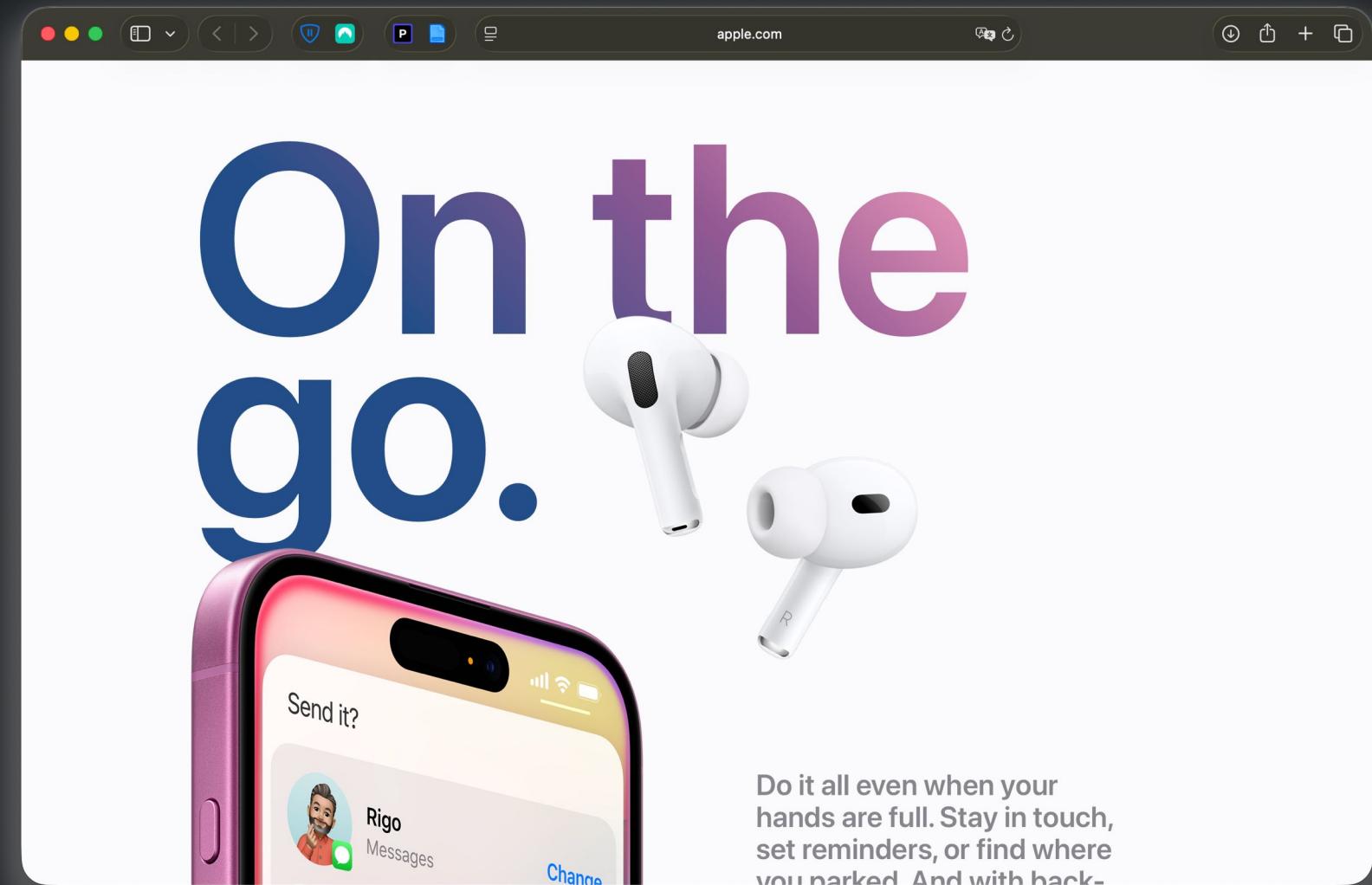
Shape

Shape gives structure. Icons, buttons, cards = all shaped affordances.



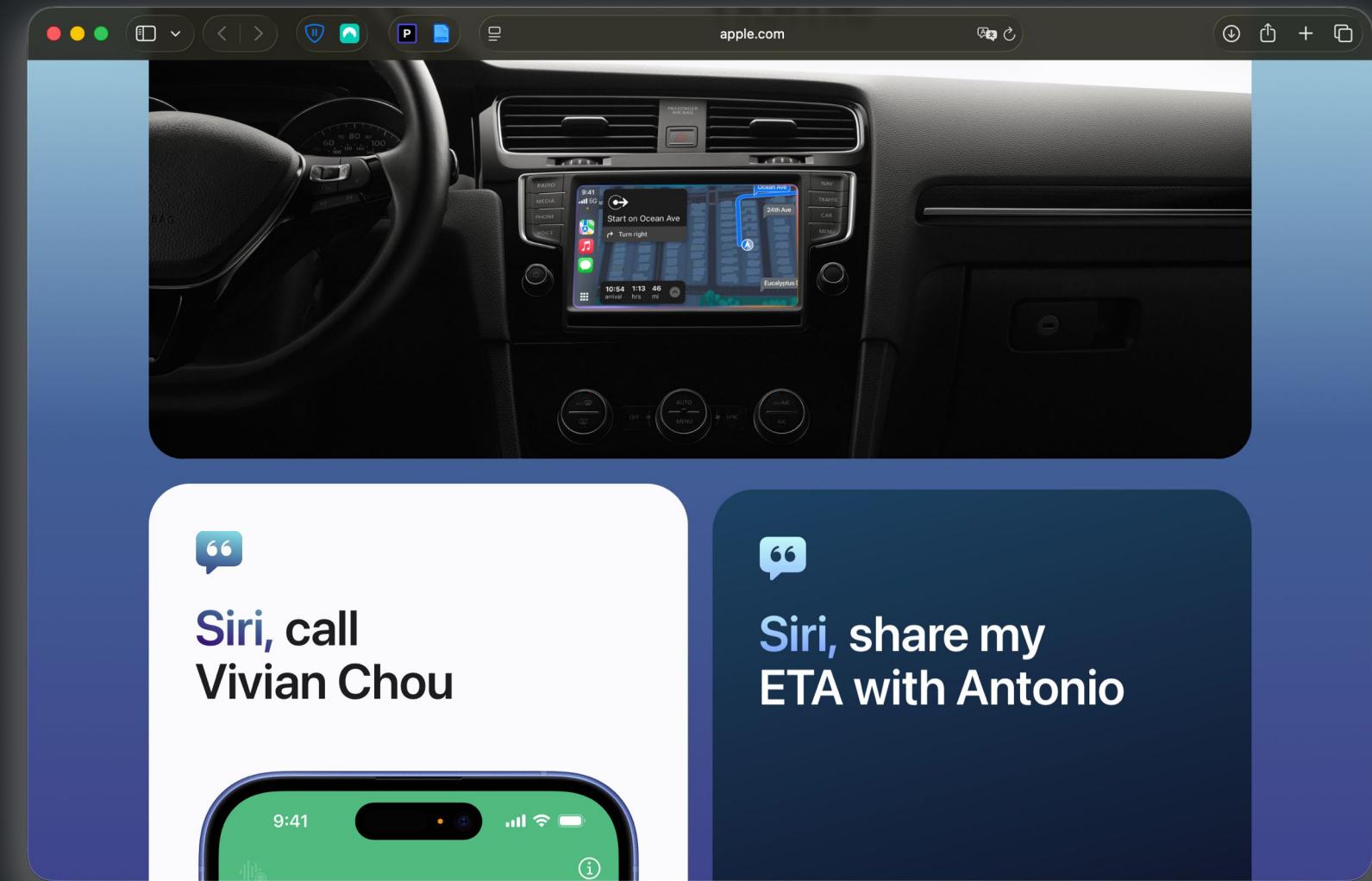
Size

Size shows importance. Bigger ≠ better — but bigger = more attention.



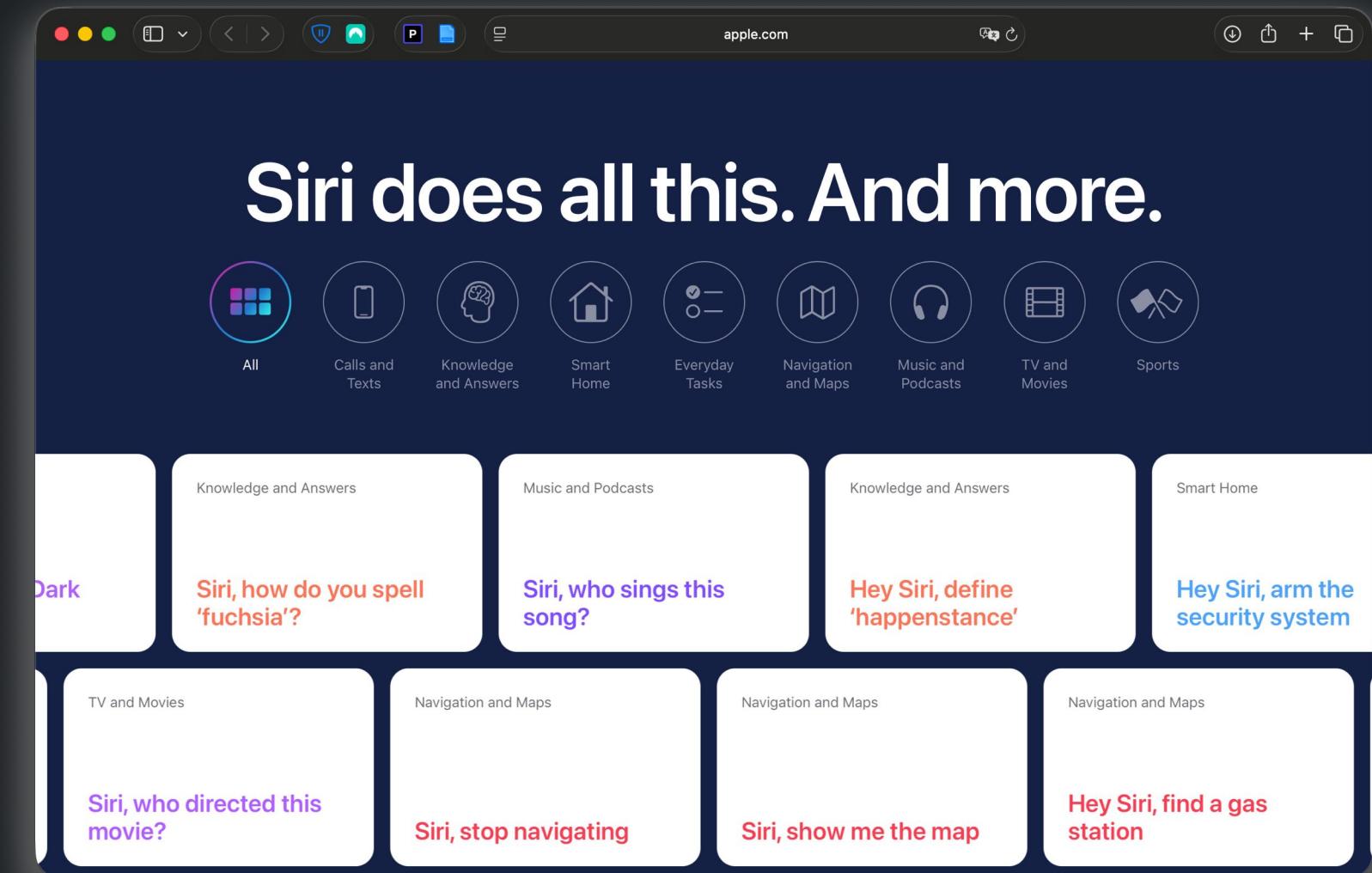
Texture

Texture creates **feel**. Often subtle — gradients, shadows, photos.



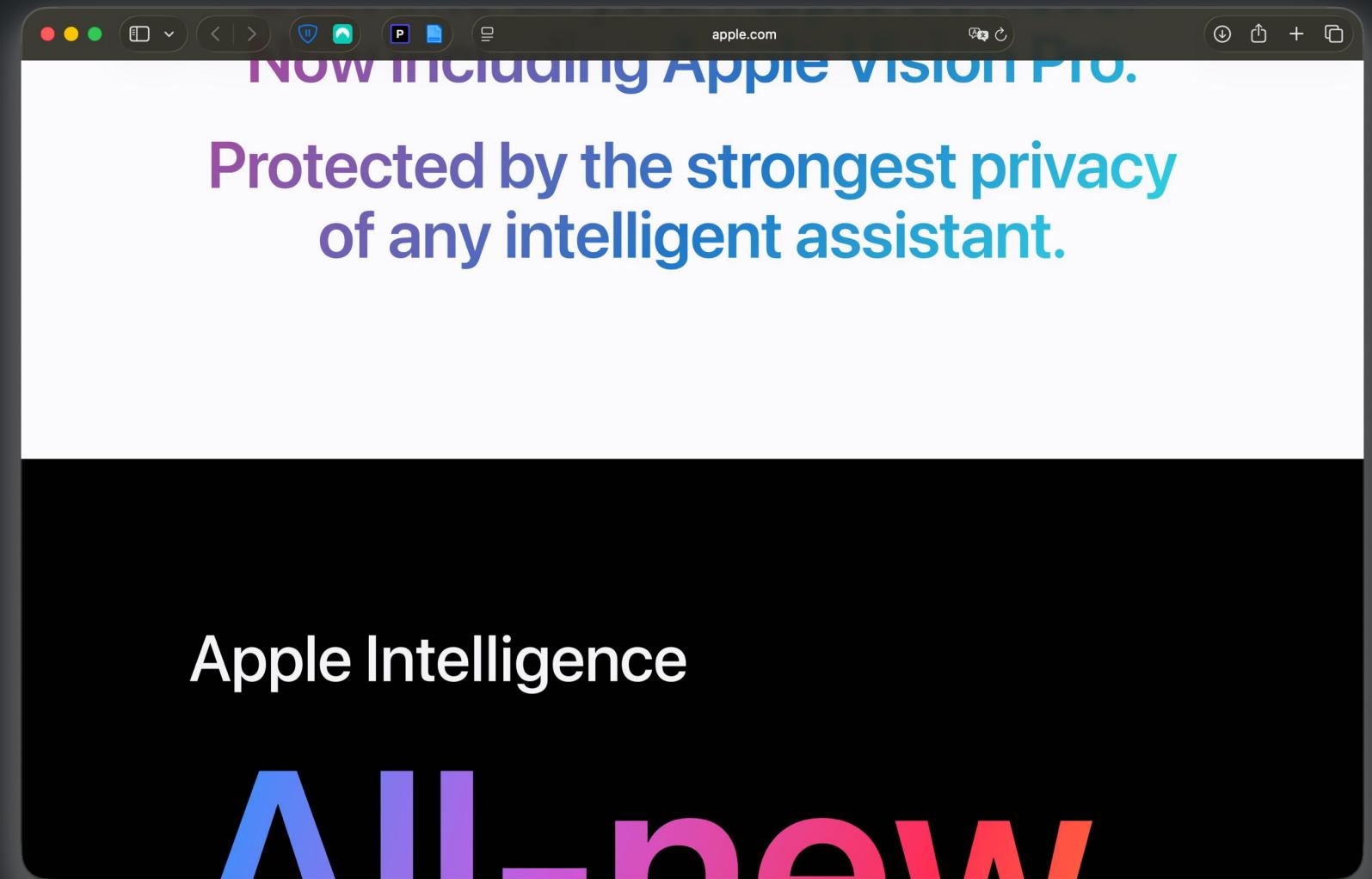
Pattern

**Patterns repeat structure.
Repetition = familiarity =
usability.**



Value

Lightness or darkness of a color or area



Your Turn

What elements can you find in this screen? Option 1,
Option 2

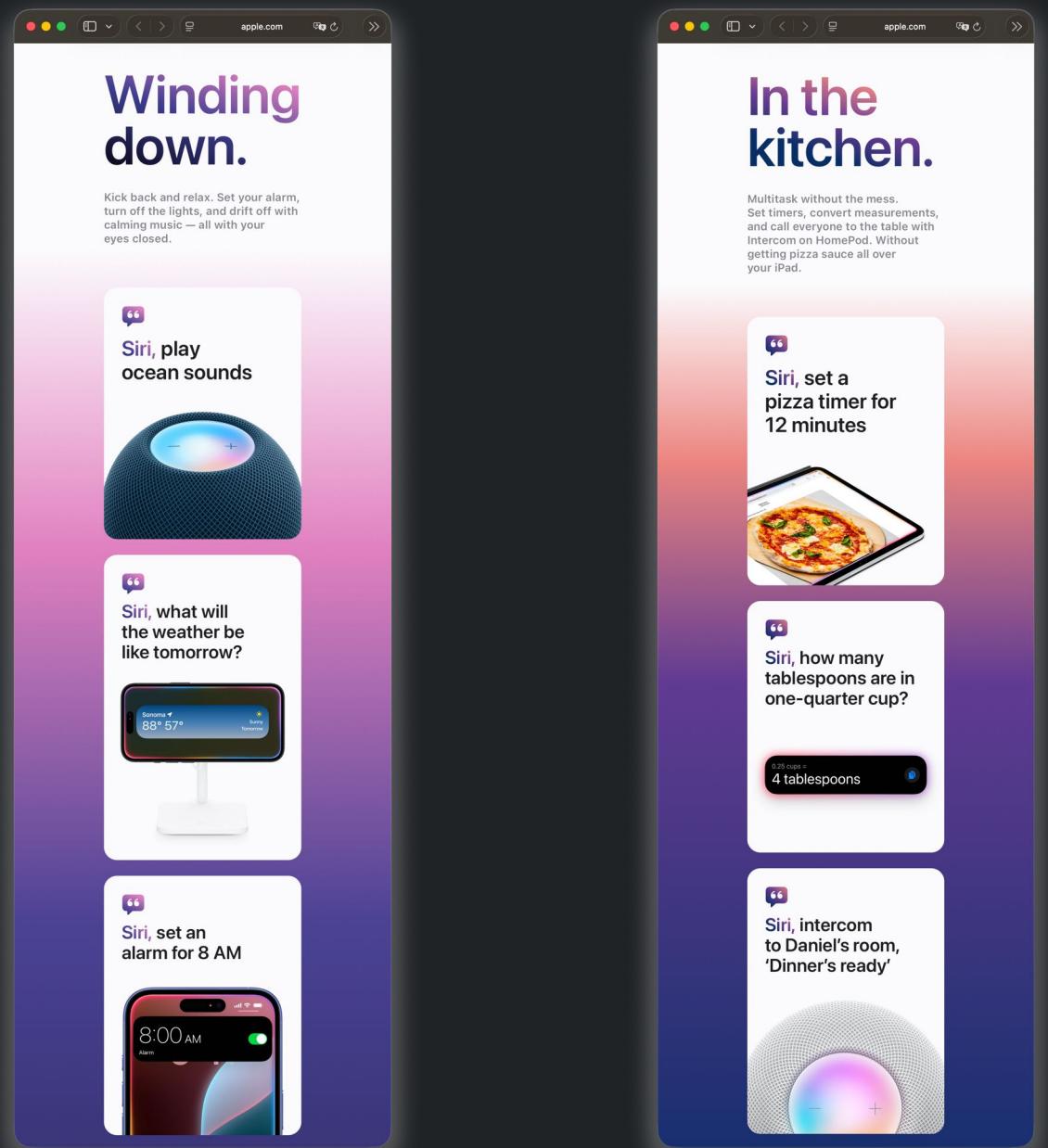
Principles of Design

Note: There is no one set of principles. See principles.design for a comprehensive collection.



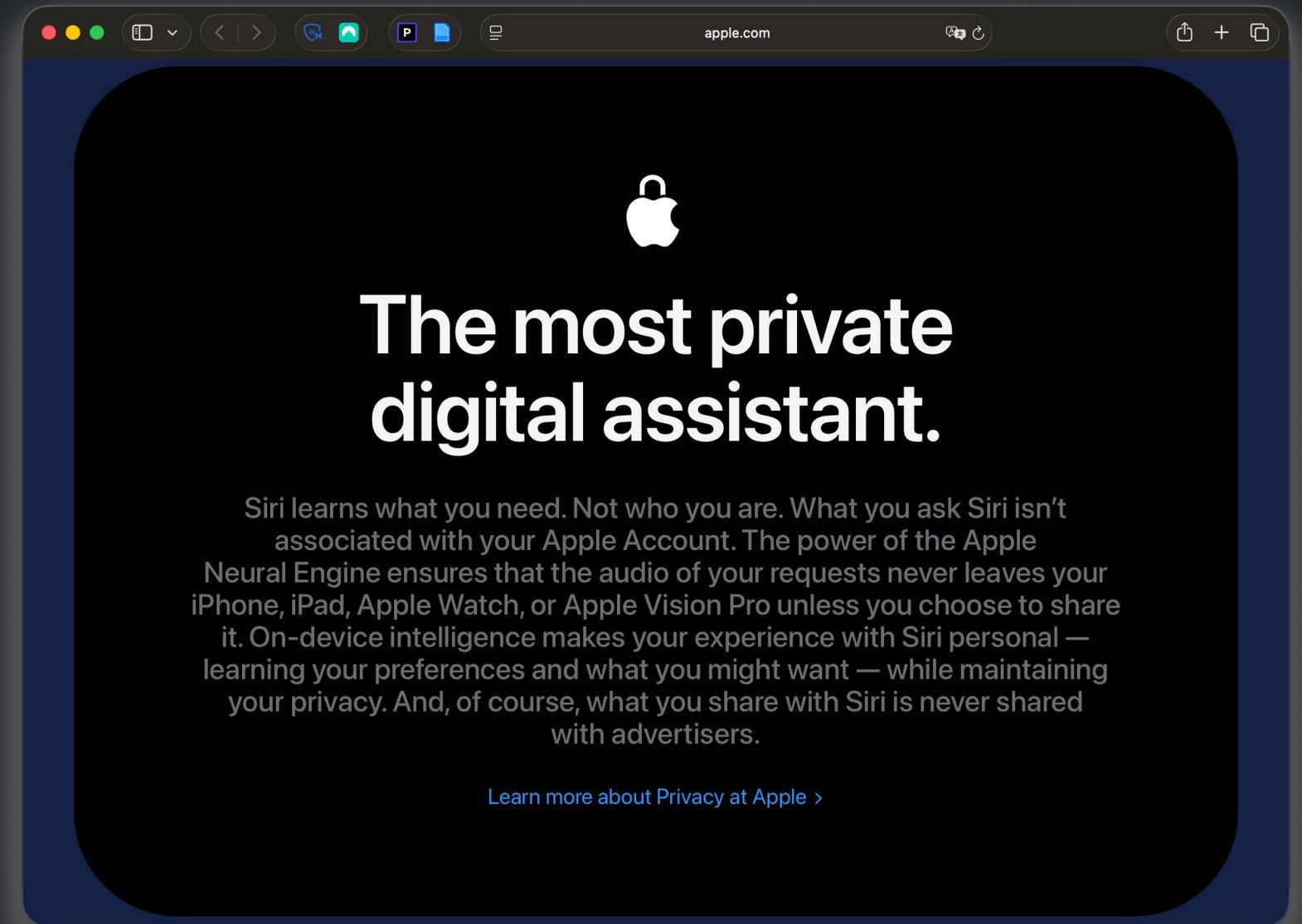
Hierarchy

Visual structure that guides the viewer's attention and information flow



Scale

Relative sizing that conveys proportion, emphasis, or structure

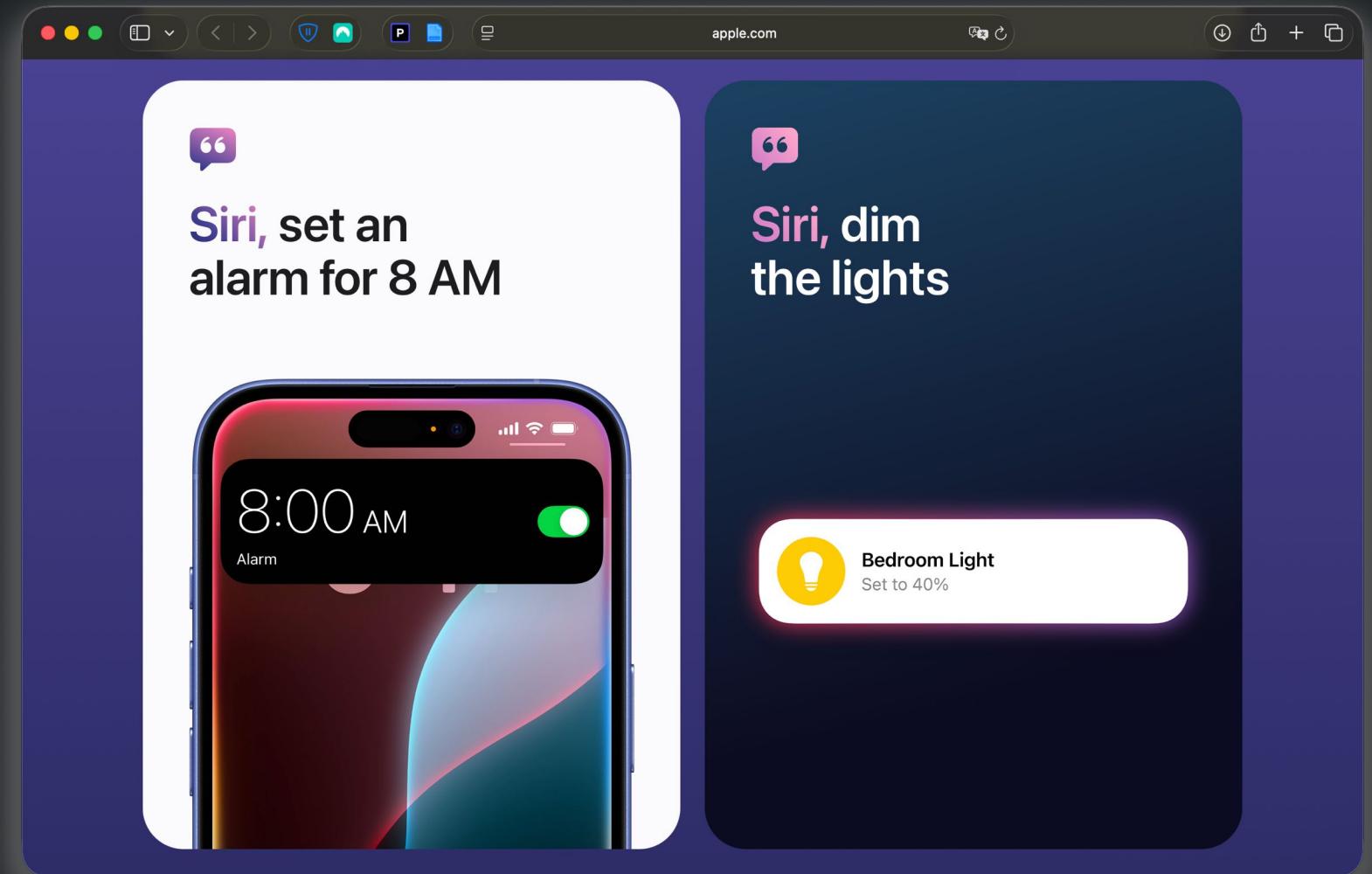


**Visual stability through distribution of elements.
Symmetry or asymmetry can both feel “balanced.”**



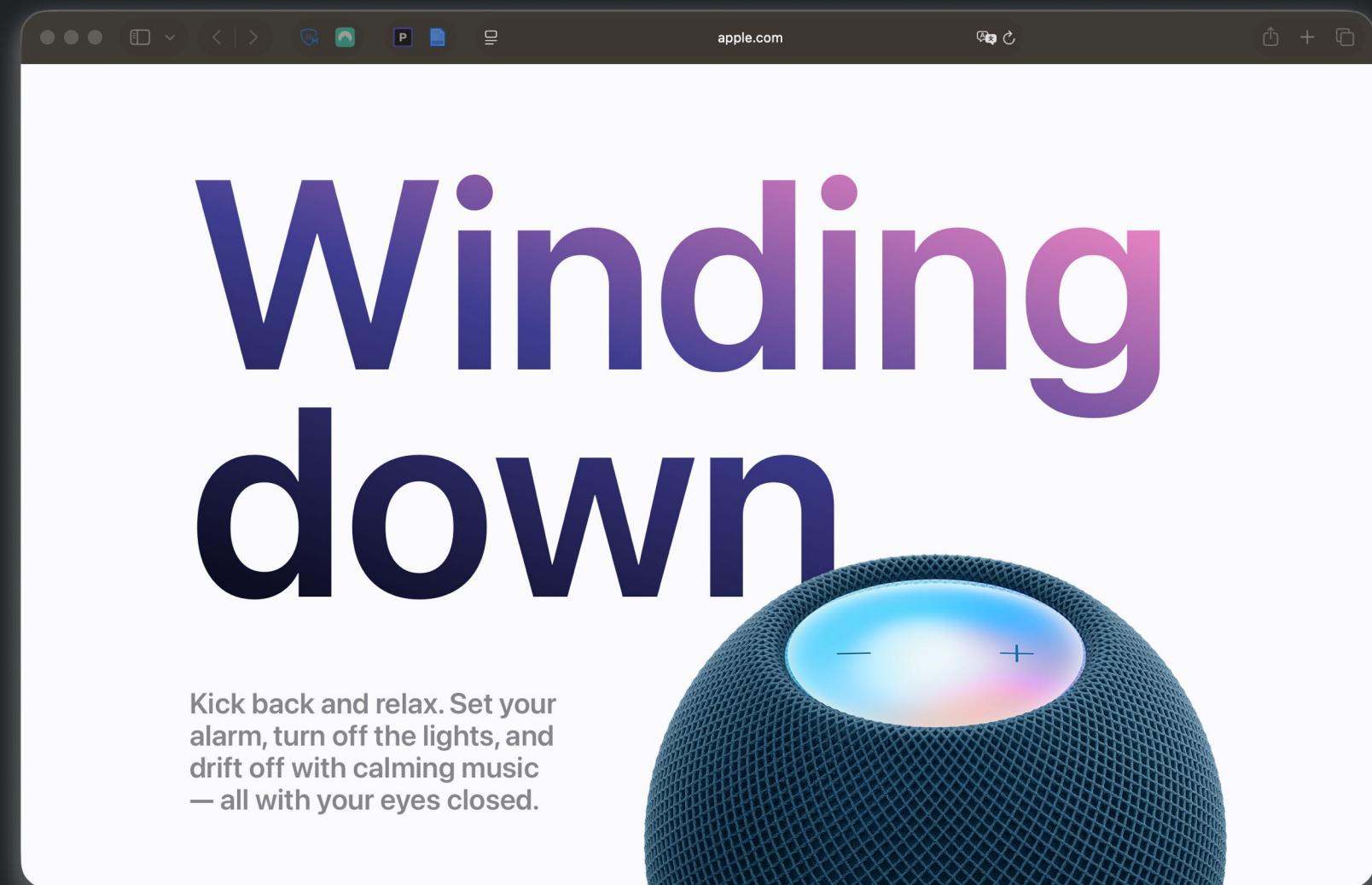
Contrast

Differences that make elements stand out

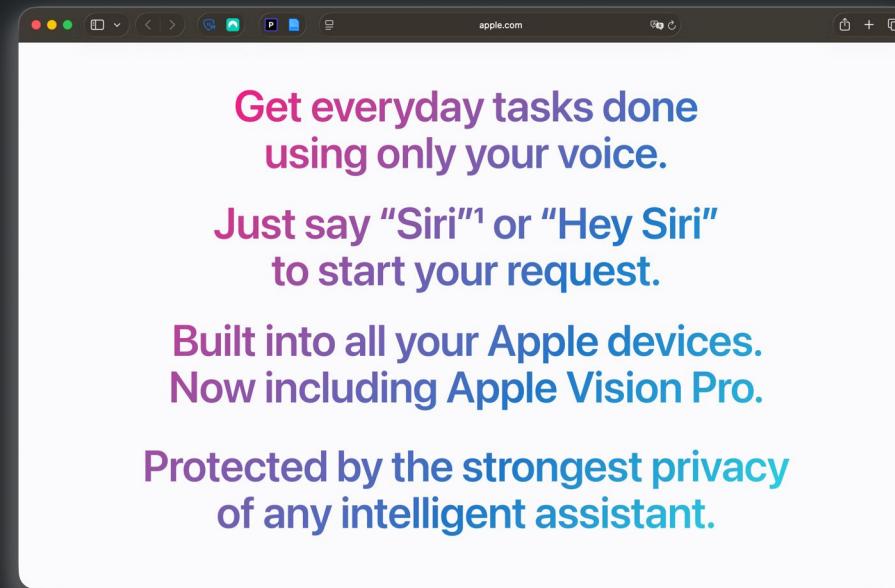


Dominance (or Focal Point)

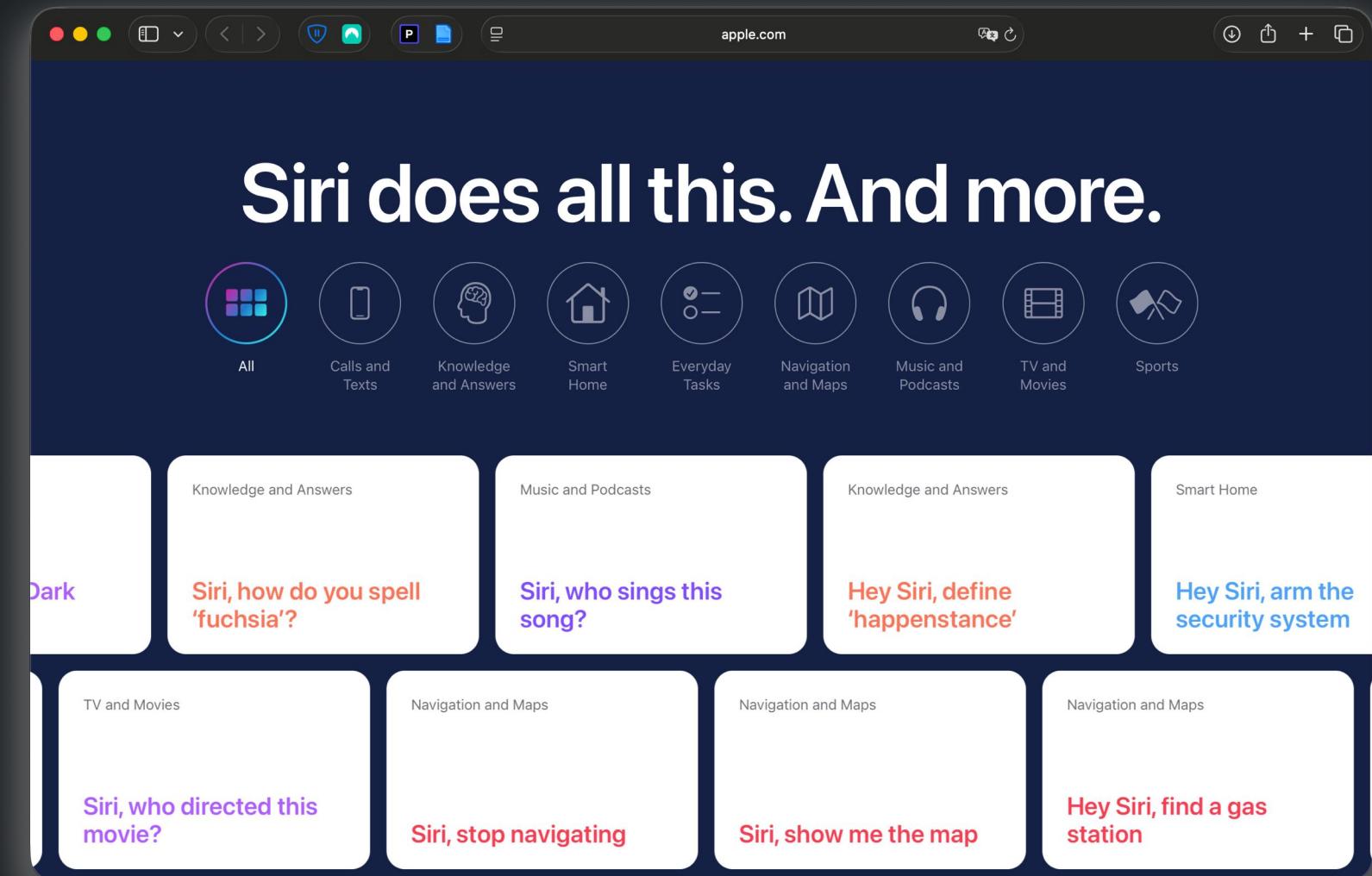
One element stands out as the focal point



Design feels coherent and consistent



The mind groups elements based on patterns



Your Turn

What principles are used in these designs? Option 1,
Option 2

More Practice...

What principle is being violated?

The screenshot shows the official website for the Wisconsin Department of Workforce Development (DWD) focused on Unemployment Insurance. The top navigation bar includes links for UNEMPLOYMENT, WORKPLACE INJURY, EQUAL RIGHTS, EMPLOYMENT & TRAINING, DISABILITY EMPLOYMENT, and ABOUT DWD. A search bar is located in the top right corner. The main content area features a large banner image of construction workers on a site. Below the banner, a red button says 'Apply for Unemployment Benefits' and a blue button says 'Reset Password for Unemployment Benefits'. The page is divided into four main sections: CLAIMANTS, EMPLOYERS, SERVICE PROVIDERS, and COMMUNITY PARTNERS, each with a list of links. A sidebar on the left provides 'Unemployment News' and a 'Contact Us' list. At the bottom right, there is a chatbot interface with a message from 'Mattie Moo'.

The World of Design Principles

What if I synthesized all principles from principles.design into a universal set? And which ones would be most relevant to us?

Universal Design Principles

- Put users first (user-centered design)
- Simplicity & clarity
- Consistency & unity
- Accessibility & inclusivity
- Feedback & communication
- Performance & responsiveness
- Flexibility & adaptability
- Ethical & responsible design
- Iterative refinement
- Brand coherence

Interaction Design Principles

- Clarity of intent
- Consistent affordances & signifiers
- Visual hierarchy for interaction flow
- Responsive feedback
- Error forgiveness & recovery
- Inclusive interaction
- Efficiency & minimal cognitive load
- Scalable patterns
- Emotion & delight
- Ethical transparency

What Makes Good Interaction Design?

Design = Design Thinking + Design Process

1. **Understand People** — Start with real users, needs, and contexts
2. **Communicate Clearly** — Use layout, hierarchy, and feedback to guide interaction
3. **Think in Systems** — Build consistent patterns that scale and adapt
4. **Iterate & Refine** — Sketch, test, and improve through critique and revision
5. **Create Meaningful Experiences** — Aim for usability and emotional resonance

From Parts to Systems

- Elements form **patterns**
- Patterns form **systems**
- Systems drive **consistency + scalability**

Takeaways

- You now have a **visual design vocabulary**
- These are **tools**, not rules
- We'll apply these in this week's design challenge

Design Challenge

Use your new knowledge of visual design **elements and **principles** to create a clear, well-composed interaction screen.**

The Design Brief

Design the **main screen** for a digital interface that communicates a **community-based event or service**.

You're designing this as if it were part of a **real app, website, or kiosk** — not a concept sketch, but a screen someone could use.

Purpose

This screen should clearly convey the **core information** and visually guide the user through it.

Even though we're not designing full interactions yet, the screen should **suggest interactivity** — e.g., buttons, sign-up prompts, or follow-up actions.

Example Topics

Pick a community-based event or service such as:

- A student-run **theater performance**
- A local **composting program**
- A free **clothing exchange**
- A mental health **relaxation room**
- A pop-up **bike repair booth**

Format Options

Design this screen for one of these digital contexts:

- A **mobile app**
- A **website landing page**
- A **public kiosk** (e.g., in a library or student union)

What to Focus On

This week's challenge is **one screen**, not a full app or flow.

Design for:

- Content hierarchy
- Visual grouping and spacing
- Typography, balance, and alignment
- A sense of intent and interactivity

Framing Questions

Before you sketch, ask:

- Who is this screen for?
- What's the **core message** or call to action?
- What should the user see **first**?
- What kind of visual tone fits the event?

While Sketching

Focus on:

- Boxes and visual zones
- Spacing and balance
- Labeling and grouping
- Implied actions (e.g., “Sign Up,” “Learn More”)

Use Your Principles

Apply what you learned on Monday:

- Use alignment and hierarchy to build clarity
- Use contrast and repetition for emphasis and structure
- Think about scale, weight, and flow

Timeline

- **Today (Mon):** Challenge released — choose your topic and format
- **Wednesday:** In-class studio — sketching + feedback
- **Friday:** Bring your **refined version** for critique

What You'll Submit

Due next Monday. Submit:

- Your **final screen design** (PDF or image)
- **2–3 photos** of your sketchbook showing:
 - Early layout ideas
 - Revisions from feedback
 - Iterations or alternate directions

What's Next?

By Wednesday:

- Complete reflection activity (< 30 min)
- Make some decisions on your design challenge

Media Sources

Siri | WI DWD