Week 1: Foundations of Product Design

Learning Objectives

By the end of this lesson, students should be able to:

- Understand what Product Design is
- Explain the difference between UX and UI
- Differentiate Product Designers from UX Designers
- Understand the Product Design process
- Identify different product categories
- Analyze digital products using a design lens

Product Design?

Product Design is the process of identifying user problems and creating solutions that are useful, usable, and desirable while also meeting business goals.

A product designer solves problems through design and technology.

Examples:

- Uber solves transportation challenges.
- Airbnb solves accommodation challenges.
- Spotify solves music discovery and listening challenges.

A designer's job is not to make screens pretty. A designer's job is to create experiences that help users achieve their goals efficiently.

Why Product design matters

Product design bridges the gap between what a user needs and what a business wants to achieve.

It is the engine that converts real human problems into intuitive digital solutions. When done right, it eliminates daily user friction, builds trust, and makes technology accessible. For businesses, it isn’t just an aesthetics, it is a direct growth driver that dramatically lowers customer acquisition costs, increases retention loops, and prevents expensive engineering re-work by solving the right problems before code is ever written.

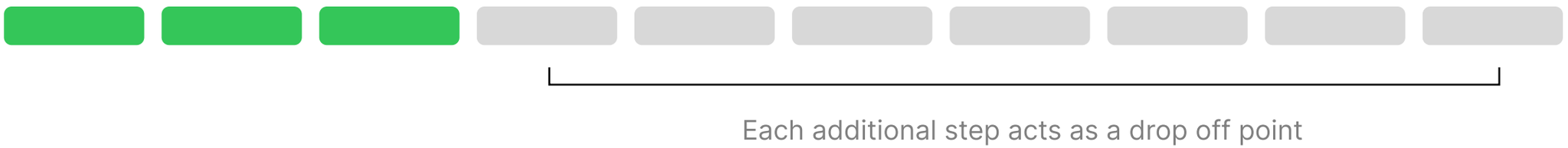
The bottom line: If a product is confusing or is not solving real problems, users leave. If users leave, the business fails. Product design is what ensures both win.

Why Product design matters Cont.

Example scenario

If Uber's ride booking flow takes 10 steps instead of 3:

- Users abandon rides
- Revenue drops
- Customer satisfaction decreases



Each additional step acts as a drop off point

Good design directly affects business success.

UI vs UX vs Product design

User Interface (UI) Design: How it Looks

UI is the most tangible, visible layer. It focuses purely on the visual, structural, and interactive elements of a screen that a human touches or clicks.

Focuses on: Typography scales, accessible color palettes, layout grids, responsive screen layouts, buttons, form fields, and dark/light mode states.

User Experience (UX) Design: How it Works

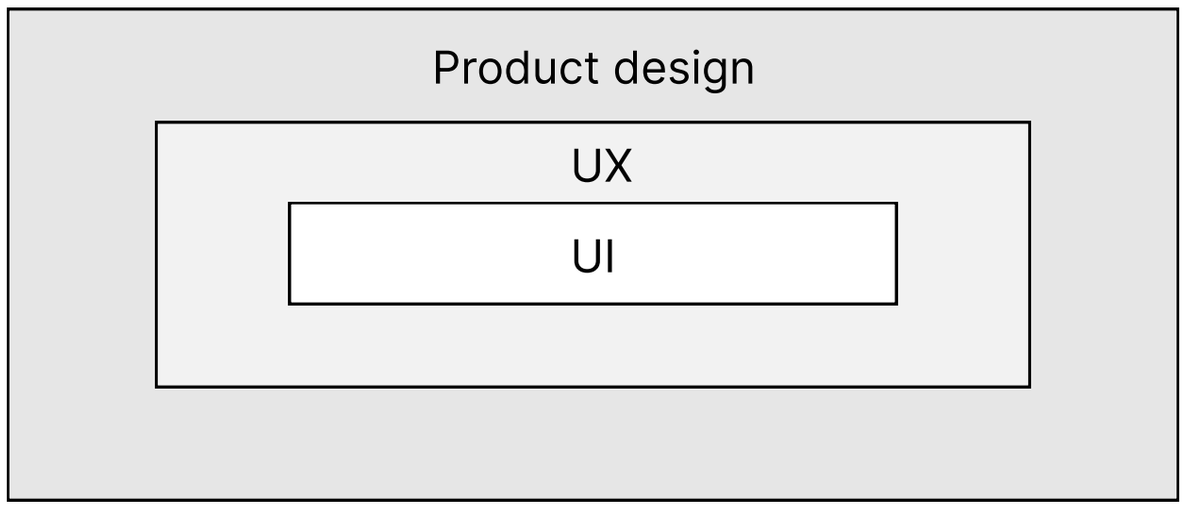
UX is the invisible architecture underneath the visuals. It all about how the product works and feels
Focuses on: Qualitative user research interviews, sitemaps, information architecture, user flow wireframes, edge-case maps, and interactive prototypes.

UI vs UX vs Product design Cont.

Product Design: Works across the entire product lifecycle

Product Design is the umbrella that encompasses both UI and UX, but injects business strategy, and objectives into the mix. A Product Designer is a business stakeholder who ensures the user experience directly drives company growth, conversion loops, and long-term customer retention.

The Core Question:
How do we solve this user pain point in a way that scales the business and accounts for technical engineering constraints?



Comparison

UX design	Product design
User-focused	User + Business focused
Research-heavy	End-to-end ownership
Works on experience	Works on product success
Limited scope	Broader scope

Examples of well designed prodcts



Alarm app Analogy

- **UI (User Interface) - How it looks**

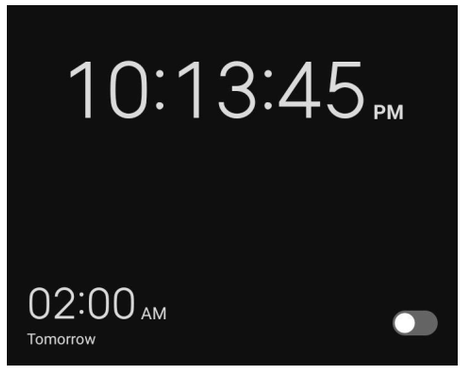
  The visual surface. It’s the large typography of the digital clock, the color contrast of the active toggles, and the dark-mode layout that ensures you can read the screen in a pitch-black room without blinding yourself.

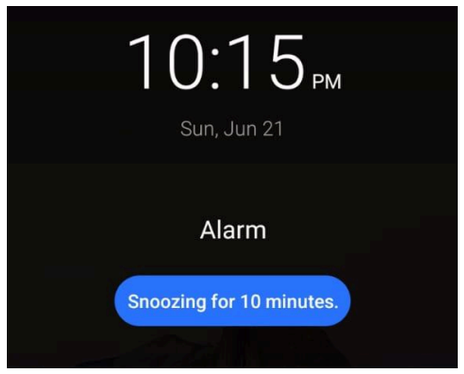
- **UX (User Experience) - How it works**

  The behavioral journey. It’s making the Snooze button massive so it’s easy to hit while half-asleep, while making the Dismiss action a deliberate swipe so you don't accidentally turn it off and oversleep.

- **Product Design - The strategy & business metrics**

  The big picture. It’s analyzing user drop-off data to see why people delete alarms, collaborating with engineers to fix layout bugs, and designing a feature that seamlessly shows the morning weather right after the alarm stops to boost daily app retention.





Restaurant analogy

- **UI :**
  - Food quality
  - Service speed
  - Table arrangement
  - Ease of ordering
- **UX :**
  - Interior decoration
  - Menu design
  - Lighting
  - Branding

A beautiful restaurant with terrible food has bad UX.

A restaurant with amazing food but terrible decoration has weak UI.

The best products have both.