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UI / UX Design

Complete Concept Notes

All Topics Explained in Simple Language

BCA 2nd Year | Units I, II & III

Covers Full Exam Syllabus | Easy Language

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Prepared exclusively for BCA students by Innoovatum Mentors

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UNIT I: UI/UX Fundamentals & Design Thinking

1. What is UI and UX?

UI (User Interface) is everything you can SEE and CLICK in an app or website — buttons, menus, colors, icons, and layouts. Think of it as the appearance of a product.

UX (User Experience) is how you FEEL when using that app — is it easy? Enjoyable? Frustrating? It is the overall journey a user goes through.

Real Example: Think of a restaurant. The menu design, table layout, and lighting = UI. How comfortable you feel, how fast you're served, how easy it is to order = UX.

Key Difference:

- UI = Visual Design (what it looks like)
- UX = Interaction Design (how it feels to use)
- A product can look beautiful (good UI) but be confusing to use (bad UX)

EXAM TIP: UX is about the EXPERIENCE. UI is about the INTERFACE. Both are needed for a great product.

2. Requirement Gathering

Before designing anything, you must understand **WHAT is needed**. This is called Requirement Gathering.

Functional Requirements — What the system MUST DO:

- User can register and login
- User can search for products
- Admin can add or remove items

Non-Functional Requirements — HOW the system should perform:

- The page must load in under 2 seconds (Performance)
- The app must be available 99.9% of the time (Reliability)
- Only authorized users can access admin panel (Security)

Simple Rule: Functional = Features. Non-Functional = Quality standards.

How to gather requirements?

- User Interviews — Talk directly to users
- Surveys — Collect data from many users
- Stakeholder Meetings — Understand business goals
- Observation — Watch how users work

EXAM TIP: Functional = WHAT it does. Non-Functional = HOW WELL it does it.

3. UI Guidelines & Intuitive UI

UI Guidelines are rules and standards that help designers create consistent, professional interfaces. Examples: Google Material Design, Apple Human Interface Guidelines.

Global Standards of UI ensure that apps look and feel consistent across regions and devices — so a button in India looks and works like a button in the USA.

Intuitive UI means users can use the product WITHOUT reading a manual. The design itself guides them.

Example: A shopping cart icon always means 'your items to buy'. You don't need instructions — it's intuitive.

Principles of Intuitive Design:

- Use familiar icons and patterns users already know
- Keep navigation simple and predictable
- Provide clear feedback for every action
- Use labels with icons — don't rely on icons alone

EXAM TIP: Intuitive UI = Users don't need to THINK. The design guides them naturally.

4. Cognitive Load Reduction

Cognitive Load is the mental effort required to use an interface. High cognitive load = confusing, tiring. Low cognitive load = easy, smooth.

Think of it like this: If a user has to 'think hard' to use your app, you've failed. Good design makes things feel effortless.

How to Reduce Cognitive Load:

- Break complex tasks into small steps (e.g., multi-step forms)
- Use clear, simple language — avoid jargon
- Group related items together (proximity)
- Use icons with text labels, not icons alone
- Limit choices — too many options overwhelm users (Hick's Law)
- Use white space to let content breathe

Real Example: Google's homepage has ONE search box. Nothing else to distract. Zero cognitive load.

EXAM TIP: Less thinking for the user = Better design. Simplify everything.

5. Usability Heuristics (Nielsen's 10 Rules)

Jakob Nielsen's **10 Usability Heuristics** are guidelines for evaluating if a UI is easy to use. Think of them as a checklist for good design.

1. **Visibility of System Status** — Always tell users what is happening (e.g., loading spinner, progress bar)
2. **Match with Real World** — Use words and concepts familiar to users, not technical terms
3. **User Control & Freedom** — Provide undo/redo options; let users cancel mistakes easily
4. **Consistency & Standards** — Same actions should work the same way everywhere in the app
5. **Error Prevention** — Design to prevent mistakes before they happen (e.g., confirm before delete)
6. **Recognition over Recall** — Show options visually; don't make users memorize things
7. **Flexibility & Efficiency** — Provide shortcuts for expert users while keeping it simple for beginners
8. **Aesthetic & Minimalist Design** — Every element must have a purpose; remove clutter
9. **Help Users Recognize & Recover from Errors** — Error messages must be clear and suggest solutions
10. **Help & Documentation** — Provide easy-to-find help when users need it

Exam Tip: Heuristic #6 — Recognition over Recall is very commonly tested!

EXAM TIP: Jakob Nielsen created the 10 Usability Heuristics. Most tested: Visibility of Status, Error Prevention, Recognition over Recall.

6. Information Architecture (IA)

Information Architecture (IA) is the art of organizing and structuring content so users can find what they need easily. It is the backbone of navigation.

Think of IA like a library: Books are organized by genre, author, and topic. You know where to look without reading every book. IA does the same for digital products.

Key components of IA:

- **Site Map** — A diagram showing all pages and their hierarchy
- **Navigation Menus** — Top bar, sidebar, or bottom navigation
- **Breadcrumbs** — Shows current location (Home > Products > Shoes)
- **Search** — Helps users find content quickly
- **Labels** — Clear names for sections and links

Card Sorting is a research technique where users group topics into categories — helping designers build better IA.

EXAM TIP: IA = How content is ORGANIZED. Good IA means users never get lost.

7. Design Thinking — The 5-Step Process

Design Thinking is a human-centered approach to solving problems. Instead of jumping to solutions, you first deeply understand the user's problem.

Remember the order: Empathy → Define → Ideate → Prototype → Test

Step 1: EMPATHY — Understand your users

Talk to real users. Observe them. Feel their pain points and frustrations. Use user interviews, surveys, and observation.

Example: Before designing a food delivery app, spend a day talking to 10 hungry students about their ordering experience.

Step 2: DEFINE — State the problem clearly

Analyse your research and write a clear problem statement. This keeps the whole team focused on the right problem.

Example: "Students need a fast way to order food during 15-minute college breaks."

Step 3: IDEATE — Generate solutions

Brainstorm as many ideas as possible. No idea is too crazy at this stage. Use mind maps, sketches, and group discussions.

Step 4: PROTOTYPE — Build a sample

Create a simple, low-cost version of your best idea. This can be a paper sketch, Figma wireframe, or clickable mockup.

Step 5: TEST (Validate) — Test with real users

Show your prototype to real users. Collect feedback. Improve the design. Repeat the cycle if needed.

Key Point: Design Thinking is ITERATIVE — you may go back to earlier steps based on what you learn from testing.

EXAM TIP: 5 Steps: Empathy, Define, Ideate, Prototype, Test. Design Thinking is human-centered and iterative.

UNIT II: UX Research, Figma, Design & Typography

8. UX Research & User Persona

UX Research is the process of understanding users — who they are, what they want, and how they behave — through systematic investigation.

User Interview — A one-on-one conversation with a real user to deeply understand their goals, needs, frustrations, and behaviors.

Stakeholder Interview — A conversation with business owners or project managers to understand business goals, constraints, and expectations.

User Metadata Gathering — Collecting structured data about users: age, location, device used, frequency of use, and behavior patterns.

What is a User Persona?

A User Persona is a fictional but research-based character that represents a segment of your target users. It helps the team design with a specific person in mind.

Example Persona:

- Name: Priya, Age: 21, BCA Student
- Goals: Submit assignments quickly, access notes on mobile
- Frustrations: Slow websites, confusing navigation
- Device: Smartphone (Android)

Empathy Map — A tool to capture what a user says, thinks, does, and feels. Helps build deeper empathy.

Qualitative Research = In-depth understanding (interviews, observations)

Quantitative Research = Numbers and data (analytics, surveys with ratings)

EXAM TIP: Persona = Fictional character based on REAL research. It guides all design decisions.

9. Figma & Balsamiq — Design Tools

Figma is a cloud-based, collaborative UI design and prototyping tool. Multiple team members can work on the same file at the same time — like Google Docs for design.

Why Figma is loved: Real-time collaboration, works in browser, free plan available, supports components, prototyping, and handoff to developers.

Key Figma Features:

- **Frames** — Containers for your screens (like artboards). Each screen of your app is a Frame.
- **Layers Panel** — Shows all elements in your design in a tree structure
- **Properties Panel** — Adjust size, color, font, spacing on the right side

- **Components** — Reusable UI elements (buttons, cards, nav bars)
- **Variants** — Different states of a component (normal, hover, disabled) in one organized group
- **Auto Layout** — Makes frames automatically resize based on content (essential for responsive design)
- **Prototype Mode** — Link screens together to simulate navigation and interactions
- **Export** — Export assets as PNG, SVG, JPG, or PDF

Balsamiq is a wireframing tool known for its hand-drawn, sketch-like style. It is used for creating quick **low-fidelity wireframes** without getting distracted by colors or fonts.

When to use Balsamiq: Early in the design process when you just want to show layout and structure, not visual design.

EXAM TIP: Figma = Full design + prototyping tool. Balsamiq = Quick lo-fi wireframing with sketchy style.

10. Components, Variants & Auto Layout in Figma

Components are reusable design elements. Instead of designing the same button 100 times, you design it once as a component and reuse it everywhere.

Analogy: A stamp. You create the stamp once and use it to print the same design anywhere on paper.

- **Master Component** — The original design. Changes here affect ALL instances.
- **Instance** — A copy of the master component placed in your design

Variants allow you to group multiple versions of a component in one place.

Example: A button component can have variants: Default, Hover, Active, Disabled — all organized in one component set.

Auto Layout is Figma's feature that makes frames automatically adjust their size based on the content inside them.

- Add padding around content automatically
- Space items evenly without manual calculation
- When text grows, the frame grows with it
- Essential for building responsive UI in Figma

Layout Grids help you align elements consistently. You can set up Column grids (like a 12-column newspaper layout), Row grids, or a square Grid.

EXAM TIP: Components = Reusability. Variants = Multiple states. Auto Layout = Responsive frames.

11. Wireframing — Lo-Fi vs Hi-Fi

A **Wireframe** is a blueprint of a screen. It shows the layout, structure, and placement of elements — WITHOUT colors, fonts, or images.

Think of it like: An architect's floor plan. It shows where rooms are, not how they're decorated.

Low-Fidelity (Lo-Fi) Wireframe:

- Simple boxes, lines, and placeholder text
- Created with pencil on paper OR Balsamiq
- Purpose: Quick idea exploration and concept testing
- No colors, fonts, or images — just structure
- Created FIRST in the design process

High-Fidelity (Hi-Fi) Wireframe:

- Detailed, pixel-accurate design with real colors, fonts, and images
- Created in Figma or Adobe XD
- Looks very close to the final product
- Used for stakeholder presentations and developer handoff
- Created AFTER lo-fi wireframes are approved

Mockup = Static hi-fi design. **Prototype** = Interactive, clickable hi-fi design.

EXAM TIP: Lo-Fi = Quick sketch for structure. Hi-Fi = Detailed realistic design. Lo-Fi ALWAYS comes first.

12. Mobile Responsiveness

Mobile Responsiveness means designing so your app or website works well on all screen sizes — phones, tablets, laptops, and desktops.

Media Queries in CSS allow you to apply different styles for different screen sizes.

Example CSS: @media (max-width: 768px) { font-size: 14px; } — This applies 14px font only on screens smaller than 768px.

Breakpoints are specific screen widths where the layout changes:

- Mobile: 320px – 480px
- Tablet: 481px – 768px
- Laptop: 769px – 1024px
- Desktop: 1025px and above

Responsive Design = Layout fluidly adjusts to ANY screen size (flexible grid)

Adaptive Design = Layout snaps to predefined breakpoints (fixed layouts for specific sizes)

Mobile-First Design = Start designing for the smallest screen first, then scale up. This is the modern best practice.

EXAM TIP: Responsive = Fluid. Adaptive = Snaps to set sizes. Mobile-First = Design for phones first.

13. Color Psychology in UI/UX

Color Psychology is the study of how colors affect human emotions and behavior. In UI, choosing the right colors influences how users feel and what actions they take.

Common Color Meanings:

- **Red** — Urgency, danger, error, excitement (used for 'Delete' buttons, sale badges)
- **Blue** — Trust, professionalism, calm (used by Facebook, Twitter, banks)
- **Green** — Success, health, money, go-ahead (used for 'Confirm' buttons, WhatsApp)
- **Yellow** — Warning, attention, optimism (used for caution messages)
- **Orange** — Energy, creativity, calls-to-action (used by Amazon, Zomato)
- **Black** — Luxury, sophistication, elegance (Apple, high-end brands)
- **White** — Cleanliness, simplicity, space (minimalist designs)

Color Schemes:

- **Monochromatic** — Shades and tints of one color (clean, elegant)
- **Complementary** — Colors opposite on the color wheel (high contrast, energetic)
- **Analogous** — Colors next to each other on the wheel (harmonious, calm)
- **Triadic** — Three evenly spaced colors (vibrant, playful)

Contrast is critical for accessibility — text must be readable against its background. WCAG requires minimum 4.5:1 contrast ratio for body text.

EXAM TIP: Red=Error, Blue=Trust, Green=Success. Complementary = Opposite colors on wheel = High contrast.

14. Typography

Typography is the art of arranging text to make it readable, clear, and visually appealing. It is one of the most important elements of UI design.

Key Typography Terms:

- **Font** — The specific typeface design (Arial, Roboto, Times New Roman)
- **Font Weight** — Thickness of the strokes (Light, Regular, Bold, Black)
- **Font Size** — How big the text appears (measured in px or pt)
- **Line Height (Leading)** — Vertical space between lines. Recommended: 1.4–1.6x the font size
- **Kerning** — Space between individual characters
- **Tracking** — Overall letter spacing across a word or sentence

Readability vs Legibility:

- **Legibility** = How easily you can distinguish individual letters (A, B, C)
- **Readability** = How easily you can read and understand a block of text

Font Types:

- **Serif fonts** (Times New Roman, Georgia) — have small 'feet'. Convey tradition, authority. Best for print.
- **Sans-Serif fonts** (Arial, Roboto, Inter) — no 'feet'. Clean and modern. Best for digital screens.
- **Display fonts** — Decorative, used only for headings

Font Pairing = Combining two complementary fonts. Common rule: Use a Serif for headings + Sans-Serif for body text.

Example: Playfair Display (heading) + Source Sans Pro (body) = elegant pairing.

EXAM TIP: Sans-serif = Digital screens. Serif = Print. Readability = blocks of text. Legibility = individual characters.

15. UI Design Systems & Components

UI Design System is a collection of reusable components, guidelines, and standards that help teams design consistently and efficiently. Think of it as a 'design language' for a product.

Famous Design Systems: Google Material Design, Apple Human Interface Guidelines, IBM Carbon Design

Common UI Components:

- **Buttons** — Primary (main action), Secondary (alternative), Danger (destructive action like Delete)
- **Forms & Inputs** — Text fields, dropdowns, checkboxes, radio buttons, date pickers
- **Navigation Bars** — Top nav (desktop), Bottom tab bar (mobile), Sidebar (admin panels)
- **Cards** — Display grouped content (product cards, article previews)
- **Modals / Dialogs** — Popup boxes for important messages or actions
- **Tooltips** — Small info bubbles appearing on hover
- **Badges** — Small notification indicators (red dot with number)
- **Accordions** — Expandable/collapsible sections to save space
- **Carousels** — Sliding display of images or cards

Button States: Default, Hover, Active (clicked), Disabled, Focus

EXAM TIP: Design Systems ensure CONSISTENCY across the entire product. Buttons have 5 states: Default, Hover, Active, Disabled, Focus.

UNIT III: Designing an Application

16. App Idea Generation

Before designing an app, you need an **idea**. Idea generation is a creative process of exploring problems and thinking of solutions.

Ideation Techniques:

- **Brainstorming** — Write down ALL ideas without judging. Quantity over quality.
- **Mind Mapping** — Start with the central problem and branch out to related ideas
- **SCAMPER** — Substitute, Combine, Adapt, Modify, Put to other use, Eliminate, Reverse
- **Crazy 8s** — Sketch 8 different ideas in 8 minutes (fast ideation)

Concept Validation — After generating ideas, you must validate that the idea is:

- Solving a REAL problem (not just a nice-to-have)
- Technically feasible to build
- Viable as a business
- Desirable to the target users

Validation methods: User interviews, landing page tests, surveys, MVP launch

EXAM TIP: Idea generation = Brainstorm freely. Concept validation = Confirm the idea solves a REAL problem.

17. Requirement Analysis

Requirement Analysis is the process of identifying, documenting, and prioritizing what an app must do before design or development begins.

Business Requirements vs User Needs:

- **Business Requirements** = What the COMPANY needs (revenue goals, compliance, brand standards)
- **User Needs** = What the END USER needs (solve their problem, easy to use, fast)

Example: Business requirement: 'App must show ads.' User need: 'App must be clutter-free.' Good UX balances both.

User Stories are a simple way to write requirements from the user's perspective:

Format: "As a [type of user], I want [a goal] so that [a reason/benefit]"

Example: "As a student, I want to download notes offline so that I can study without internet."

Acceptance Criteria = The conditions that must be met for a feature to be considered complete.

EXAM TIP: User Story format: 'As a [user], I want [feature] so that [benefit].' Learn this format — it's commonly tested.

18. Feature Prioritization — MoSCoW Method

You can't build everything at once. **Feature Prioritization** helps decide what to build first based on value, impact, and resources.

MoSCoW Method — The most popular prioritization framework:

- **M — Must Have** — Critical features without which the app cannot function
- **S — Should Have** — Important but not critical; workaround exists without them
- **C — Could Have** — Nice-to-have features if time and resources allow
- **W — Won't Have** — Not in this version; may be considered later

Example for a Food Delivery App:

- Must Have: Login, Browse menu, Place order, Pay
- Should Have: Order tracking, Push notifications
- Could Have: Dark mode, Cuisine filters
- Won't Have: Social media sharing, AR food preview

MVP (Minimum Viable Product) = Building ONLY the Must-Have features and launching to test with real users before building more.

EXAM TIP: MoSCoW: Must, Should, Could, Won't. MVP = Must-Haves only. Ship fast, learn fast.

19. Wireframing in App Design

In app design, wireframing is the stage where you translate ideas into visual structure — showing what goes WHERE on each screen.

The Wireframing Process:

- Step 1: List all the screens the app needs (Home, Login, Profile, etc.)
- Step 2: Sketch Lo-Fi wireframes on paper — just boxes and labels
- Step 3: Get feedback from teammates or users
- Step 4: Build Hi-Fi wireframes in Figma with real colors and fonts
- Step 5: Get approval before moving to development

Lo-Fi Wireframe purpose: Concept testing — Is the layout logical? Is the navigation clear?

Hi-Fi Wireframe purpose: Final design handoff — Developers use this to build the actual app.

Tools: Lo-Fi: Paper, Balsamiq. Hi-Fi: Figma, Adobe XD, Sketch

User Flow Diagram — Before wireframing, create a user flow showing the path a user takes to complete a task.
Example: Register → Login → Browse → Add to Cart → Checkout → Confirm

EXAM TIP: Lo-Fi first (paper/Balsamiq) → Feedback → Hi-Fi (Figma) → Handoff. Never skip Lo-Fi.

20. Prototyping in Figma

Prototyping is creating a clickable, interactive simulation of your app design. Users can tap through screens as if using the real app — without any coding.

Why prototype? To test the design with real users and catch problems BEFORE spending time and money on development.

How to create a prototype in Figma:

1. Design all your screens as separate Frames
2. Switch to Prototype mode (top panel)
3. Draw a connection from a button to the next screen
4. Set the trigger (On Click, On Hover) and animation (Push, Slide, Dissolve)
5. Click 'Play' to run the prototype and test it

Linking Pages = Connecting screens so clicking a button navigates to another screen

Linking Components = Making interactive elements (nav bar items, tabs) trigger transitions

Overlay = Showing a modal or popup on top of the current screen without navigating away

Types of Prototypes:

- **Paper Prototype** — Hand-drawn screens shown to users (Lo-Fi)
- **Digital Prototype** — Figma clickable prototype (Hi-Fi)
- **Coded Prototype** — Built with actual code (rarely needed in early stages)

EXAM TIP: Prototype = Clickable simulation of the design. Test it with users BEFORE development starts.

21. Design Principles — CRAP & Gestalt

CRAP Principles (by Robin Williams) — 4 core design principles:

- **C — Contrast** — Make different elements look different. Use it to highlight important information and create visual hierarchy.
- **R — Repetition** — Repeat visual elements throughout the design (same button style, same heading size). Creates consistency.
- **A — Alignment** — Every element must be aligned to something. Nothing should be placed randomly. Creates order.
- **P — Proximity** — Group related items together. Separate unrelated items. Helps users understand relationships.

Remember: CRAP sounds negative but it's actually the foundation of great design!

Gestalt Principles — How the human brain perceives visual information:

- **Proximity** — Elements close together are seen as related
- **Similarity** — Elements that look alike are seen as part of the same group

- **Continuity** — Eyes follow a path or flow naturally
- **Closure** — The brain fills in gaps to see complete shapes (like the FedEx arrow)
- **Figure-Ground** — The ability to distinguish an object (figure) from its background (ground)
- **Common Fate** — Elements moving in the same direction appear to belong together

EXAM TIP: CRAP = Contrast, Repetition, Alignment, Proximity. Gestalt = How the brain groups visual information.

22. Key UX Patterns & UI Elements

UX Patterns are proven solutions to common design problems. Using familiar patterns means users don't have to learn something new.

Mobile-Specific Patterns:

- **Hamburger Menu (☰)** — Hides navigation to save screen space. Tap to reveal the menu.
- **Bottom Tab Bar** — Primary navigation placed at the bottom for easy thumb access
- **Floating Action Button (FAB)** — A prominent circular button for the primary action (e.g., compose email)
- **Pull-to-Refresh** — Drag down on content to reload it
- **Swipe Gesture** — Swipe right to go back, swipe left to delete
- **Infinite Scroll** — Content loads automatically as user scrolls (social media feeds)

Common UI Patterns:

- **Pagination** — Divides content into pages (search results)
- **Skeleton Screen** — Placeholder shown while content loads (reduces perceived wait time)
- **Empty State** — Friendly design shown when there is no content yet
- **Onboarding** — Introductory screens guiding new users through key features
- **Splash Screen** — First screen shown while app loads
- **Error State** — Clear, helpful message when something goes wrong
- **Confirmation Dialog** — 'Are you sure?' popup before irreversible actions

EXAM TIP: FAB = Floating Action Button = Primary action. Skeleton screen reduces perceived wait time. Onboarding guides NEW users.

Quick Reference Glossary — Key Terms

Affordance	A design quality that suggests how something should be used (e.g., a 3D button suggests clicking)
A/B Testing	Comparing two design versions (A and B) with real users to see which performs better
Breadcrumbs	Navigation trail showing current location: Home > Category > Page
CTA (Call to Action)	A prominent button or link urging users to take action (Buy Now, Sign Up)
Card Sorting	Research technique where users group topics into categories to inform IA
Cognitive Load	Mental effort required to use an interface. Good design = low cognitive load
Component	A reusable UI element in Figma (button, card, navbar)
Dark Mode	An alternative color scheme with dark backgrounds to reduce eye strain
Design Handoff	Sharing design specs with developers for implementation
Design Sprint	A 5-day process for solving design problems through rapid design and testing
Design System	A collection of reusable components and design guidelines
Empathy Map	Tool capturing what users say, think, do, and feel
FAB	Floating Action Button — circular button for primary action on mobile
Figma	Cloud-based collaborative UI design and prototyping tool
Gestalt	Principles describing how the brain groups visual elements
Grid System	A framework of rows/columns for consistent alignment
Heuristic Evaluation	Expert review of UI against usability principles
Hi-Fi Wireframe	Detailed, realistic design with colors, fonts, and images
Infinite Scroll	Content loads automatically as user scrolls down
Information Architecture	Organizing content for easy navigation and findability
Iterative Design	Continuously improving design based on feedback
Kerning	Spacing between individual characters in typography
Lo-Fi Wireframe	Simple sketch showing layout without visual design details
Media Query	CSS rule applying styles based on screen size
Microinteraction	Small animation giving feedback to user actions

Modal	Popup dialog appearing over the current screen
MoSCoW	Feature prioritization: Must have, Should have, Could have, Won't have
MVP	Minimum Viable Product — simplest version to test with users
Onboarding	Introduction screens guiding new users through an app
Pain Point	A specific problem or frustration experienced by users
Persona	Fictional character based on real research representing a user type
Prototype	Interactive clickable simulation of a design
Skeleton Screen	Placeholder UI shown while content loads
Splash Screen	Initial loading screen shown when app starts
Tooltip	Small info popup appearing on hover over an element
Typography	The art of arranging text for readability and visual appeal
UAT	User Acceptance Testing — final testing by actual users
UX Research	Systematic study of users to inform design decisions
Variant	Different states of a Figma component in one organized group
Wireframe	Blueprint of a screen showing layout and structure

You are ready! Best of luck with your exam. You've got this! ■

This guide was prepared by **Innoovatum** mentors to help you master every concept in your UI/UX Design syllabus. Study smart, practice consistently, and ace your exam.

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