Practical No. 1: Design User Persona for the Users of Selected Product/System

Objective:
To understand the process of creating user personas that represent target users for a selected product/system, enabling user-centered design.

Tool Used:
Google Forms / Surveys for user research, Canva or Figma for persona visualization.

Reference Video:

1. How To Create A User Persona (Video Guide) – YouTube
2. How to Create A User Persona in 2022 [FULL GUIDE] – YouTube

Theory:
A User Persona is a fictional yet realistic representation of a target user segment based on user research and data. It helps designers and developers understand the users' goals, needs, behaviors, motivations, and challenges. User personas are essential in User-Centered Design (UCD), where the focus is on designing systems that meet actual user expectations.

Importance of User Persona:
• Provides a clear picture of who the users are.
• Helps the design team empathize with the end-users.
• Guides design decisions based on user needs and goals.
• Avoids designing for "everyone" and focuses on target groups.
• Improves communication between designers, developers, and stakeholders.

Elements of a User Persona:
• Name & Demographics: Basic details such as name, age, gender, location, and occupation.
• Background: Education, profession, lifestyle, and technology familiarity.
• Goals & Needs: What the user wants to achieve using the system or product.
• Pain Points: The user's frustrations or problems with current systems.
• Motivations: Reasons that drive users to use the product.
• Behavioral Traits: Online habits, device usage, frequency, and patterns.
• Quote: A short statement that captures the user's mindset or attitude.

Steps in Creating a User Persona:
1. Select a Product/System: Choose a real-world product such as an online food delivery app or e-learning platform.
2. Conduct User Research: Use tools like Google Forms or interviews to gather user data.
3. Collect Data: Gather demographic, behavioral, and motivational information.
4. Identify Patterns: Group similar responses to identify user types.
5. Design Persona Card: Create a visual card summarizing all persona details using tools like Canva or Figma.

Advantages of Using User Personas:
• Improves design efficiency.
• Enhances user satisfaction and usability.
• Provides data-driven design insights.
• Reduces rework by aligning the design with user expectations.

Procedure:
1. Select a product or system (e.g., Online Food Delivery App).
2. Conduct a short user survey or interview.
3. Collect demographic, behavioral, and motivational data.
4. Identify user needs, goals, and pain points.
5. Design a persona card summarizing the user profile and insights.

Example Persona:
Name: Riya Sharma
Age: 26 years
Occupation: Software Engineer
Goals: Quick, affordable, and healthy meals
Pain Points: Late deliveries, hidden charges
Motivation: Convenience and variety
Quote: “I love trying new food but don’t have time to cook.”

Result:
A detailed user persona was successfully designed based on survey data, representing the target user’s goals, needs, and challenges.

Conclusion:
This practical helped us understand user personas and how they guide user-centered design by focusing on real user needs and goals.

Practical No. 2: Design a Wireframe for an Online Learning Platform

Objective:
To design a wireframe layout for an online learning platform with features like course listings, video lectures, quizzes, and progress tracking.

Tool Used:
Figma

Reference Video:
E-learning Website Design in Figma – YouTube

Theory:
A wireframe is a low-fidelity visual layout that outlines the basic structure of a digital product such as a website or mobile application. It serves as a blueprint that defines the placement of elements, navigation flow, and overall page hierarchy without focusing on colors or detailed graphics.

Wireframes play an important role in User Interface (UI) and User Experience (UX) design, as they help designers plan the structure and functionality of an application before visual design or coding begins.

For an Online Learning Platform, wireframing helps organize educational features such as course listings, video lectures, quizzes, and progress tracking in a simple and intuitive way. It ensures that students and instructors can easily interact with the platform and achieve their goals efficiently.

Importance of Wireframing:
• Provides a clear visual structure for the design.
• Helps understand navigation flow between pages.
• Saves time by detecting usability issues early.
• Facilitates better communication between designers and developers.
• Serves as a foundation for high-fidelity prototypes.

Key Elements of an E-learning Wireframe:
• Home Page: Displays featured courses, categories, and search options.
• Course Details Page: Contains video lectures, instructor details, and course description.
• Quiz Page: Includes multiple-choice questions and a timer for assessments.
• Progress Dashboard: Shows course completion percentage and earned certificates.
• Navigation Bar and Sidebar: Allow easy movement between pages.

Best Practices for Wireframing:
• Keep layouts simple and structured.
• Use placeholders for text, images, and icons.
• Maintain alignment and consistent spacing.
• Ensure that the layout enhances usability and readability.

Procedure:
1. Open Figma → Create a new project titled “E-learning Platform.”

2. Draw wireframes for:
◦ Home Page: Featured Courses, Categories
◦ Course Details Page: Video lectures, instructor information
◦ Quiz Page: Multiple-choice questions (MCQs), timer
◦ Progress Dashboard: Completed courses, certificates
3. Add a navigation bar, sidebar, and maintain a consistent layout grid across all pages.
4. Use simple placeholders for text, images, and buttons to indicate content placement.

Result:
Basic wireframes for an Online Learning Platform were successfully created using Figma. The wireframes include Home, Course Details, Quiz, and Progress Dashboard pages, designed with a clear layout and smooth navigation to enhance the learning experience.

Conclusion:
This practical helped us design simple and effective wireframes for an e-learning platform, improving our UI/UX layout and navigation skills.

Practical No. 3: Designing a Social Fitness App – Wireframes & Prototype

Objective:
To design a social fitness app prototype that enables users to track workouts, set goals, and connect socially.

Tool Used:
Figma

Reference Video:
Fitness App Design in Figma || Figma Tutorial || Design & Prototyping – YouTube

Theory:
Designing a Social Fitness App – Wireframes & Prototype

Introduction:
A social fitness app integrates health tracking with social interaction, allowing users to monitor their workouts, set personal goals, and connect with friends for motivation. It encourages a healthy lifestyle through community engagement, gamification, and progress visualization. The design process of such an app involves UI/UX design principles, wireframing, and interactive prototyping to ensure a user-friendly experience before actual development.

1. **Understanding Wireframes and Prototypes**
   a) **Wireframes:**
   Wireframes are low-fidelity visual blueprints of an app's user interface. They represent the basic structure, layout, and placement of elements like buttons, icons, text fields, and images. Wireframes help designers plan the app's flow and functionality before adding design details such as colors and typography.

Purpose of Wireframes:
• To outline the navigation structure and information hierarchy.
• To focus on functionality rather than aesthetics.
• To act as a communication tool between designers, developers, and stakeholders.

b) **Prototypes:**
A prototype is a high-fidelity interactive version of the wireframe that simulates real user interactions. It helps visualize the final product, test usability, and refine user experience before actual coding begins.

Purpose of Prototypes:
• To test navigation flow and app usability.
• To demonstrate how users will interact with the system.
• To gather feedback and make improvements early in the design process.

2. **Tool Used: Figma**
   Figma is a cloud-based UI/UX design tool used for creating wireframes, user interfaces, and

interactive prototypes. It supports real-time collaboration, allowing multiple designers to work on the same project simultaneously.

Key Features of Figma:
• Drag-and-drop interface for easy design.
• Components and styles for consistency.
• Interactive prototyping and linking.
• Collaboration and feedback tools.
• Cross-platform compatibility (works in browser).

3. **Design Components of the Social Fitness App**
   The following screens were designed to meet the project objective:

   1. Login / Sign-up Page:
      ◦ Allows users to create or access accounts.
      ◦ Includes fields for username, email, and password.
      ◦ "Sign in with Google/Facebook" options may be added for quick access.

   2. Workout Tracker Page:
      ◦ Enables users to log exercises, duration, and calories burned.
      ◦ Displays daily activity summaries and progress charts.

   3. Goals Page:
      ◦ Users can set daily or weekly goals (e.g., steps, workouts, or calorie targets).
      ◦ Progress bars or achievement badges motivate users to stay consistent.

   4. Social Feed Page:
      ◦ Displays friends' workout updates, likes, and comments.
      ◦ Encourages healthy competition and community interaction.

   5. Profile Page:
      ◦ Shows user details, fitness statistics, and achievements.
      ◦ Allows editing personal info and viewing historical performance.

4. **Design Guidelines Followed**
   • Consistency: Same icon set, button styles, and color palette across screens.
   • Clarity: Simple and intuitive layouts for easy navigation.
   • Accessibility: Readable fonts, proper color contrast, and visible CTAs (Call to Actions).
   • Interactivity: Prototype links added between pages for realistic navigation.
   • User-Centered Design: Focused on motivating users to track fitness while connecting socially.

Procedure:
1. Create wireframes for the following screens:
◦ Login / Sign-up Page
◦ Workout Tracker (log exercises, calories)
◦ Goals Page (set daily/weekly goals)
◦ Social Feed (friends' updates, likes, comments)
◦ Profile Page
2. Add interactive prototype links for navigation.
3. Use consistent icons, buttons, and colors for clarity.

Result:
An interactive prototype of a social fitness app was successfully designed using Figma. The prototype enables users to:
• Log workouts and calories,
• Set and monitor fitness goals,
• Interact socially through a feed,
• Manage their personal profile.

Conclusion:
This practical helped us design and prototype a Social Fitness App using Figma, enhancing our understanding of wireframing, interactive prototyping, and user-centered design for fitness and social engagement applications.

Practical No. 4: Heuristic Evaluation of Social Fitness App

Objective:
To evaluate the usability of a designed Social Fitness App prototype using Nielsen's Heuristic Evaluation principles and identify potential usability issues for improvement.

Theory:

1. Introduction to Heuristic Evaluation

Heuristic Evaluation is a usability inspection method in which a group of evaluators examines an interface and judges its compliance with recognized usability principles (heuristics). It helps identify design flaws early in the process before user testing, saving time and development cost.

This method was introduced by **Jakob Nielsen** and **Rolf Molich**, focusing on detecting usability problems by comparing the design against standard usability principles.

2. Importance of Heuristic Evaluation

- Detects usability issues early in the design process.
- Improves user experience by enhancing system design.
- Reduces time and cost of future design changes.
- Ensures consistency and user satisfaction.
- Helps designers focus on improving interaction flow.

3. Nielsen's 10 Usability Heuristics

No.	Heuristic Principle	Description	Example (in Social Fitness App)
1	**Visibility of System Status**	The system should always keep users informed about what is going on through appropriate feedback.	Progress bars showing steps or calories burned.
2	**Match Between System and the Real World**	Use familiar language and concepts.	"Start Workout" instead of technical terms like "Initialize Activity."
3	**User Control and Freedom**	Users should be able to undo or redo actions easily.	Option to cancel or edit a workout entry.
4	**Consistency and Standards**	Follow platform conventions and maintain uniformity.	Same color and button style across all pages.
5	**Error Prevention**	Design should prevent errors before they occur.	Confirm before deleting workout logs.
6	**Recognition Rather than Recall**	Make options and actions visible instead of making users remember	Icons for tracking, goals, and profile are visible at all

No.	Heuristic Principle	Description	Example (in Social Fitness App)
		commands.	times.
7	**Flexibility and Efficiency of Use**	Support both novice and expert users with shortcuts.	Quick-access menu for frequent users.
8	**Aesthetic and Minimalist Design**	Interfaces should not contain unnecessary information.	Clean layout with essential workout stats only.
9	**Help Users Recognize, Diagnose, and Recover from Errors**	Use clear error messages and guide users to fix issues.	“Network error—please check your internet connection.”
10	**Help and Documentation**	Provide easily accessible help if needed.	“Help” section with FAQs on how to track workouts.

4. Procedure for Heuristic Evaluation

1. **Select Evaluators:**
   Choose 3–5 evaluators familiar with usability principles to assess the app.
2. **Prepare Evaluation Material:**
   Provide access to the Social Fitness App prototype created in Figma.
3. **Explain Heuristics:**
   Ensure evaluators understand Nielsen’s 10 usability heuristics.
4. **Individual Evaluation:**
   Each evaluator inspects the interface independently and notes usability issues.
5. **Record Observations:**
   Document each issue with the corresponding heuristic violated, severity rating, and suggested improvement.
6. **Consolidate Findings:**
   Combine all evaluators’ feedback to form a comprehensive usability report.
7. **Prioritize Issues:**
   Categorize issues as **Critical**, **Major**, or **Minor** for correction.

5. Sample Evaluation Table

Screen	Heuristic Violated	Problem Description	Severity	Suggested Solution
Login Page	Visibility of System Status	No feedback after clicking “Login.”	Major	Add a loading indicator or progress bar.
Goals Page	Error Prevention	No confirmation before deleting a goal.	Major	Add a confirmation popup.
Social Feed	Consistency and Standards	Inconsistent icons for “Like” and “Comment.”	Minor	Use uniform icon design.
Workout Tracker	Match with Real World	Uses “Execute Session” instead of “Start Workout.”	Minor	Replace technical terms with user-friendly ones.

6. Severity Rating Scale

Rating	Severity Level	Description
0	Not a problem	No issue detected
1	Cosmetic problem	Fix if time permits
2	Minor usability problem	Low priority
3	Major usability problem	High priority
4	Usability catastrophe	Must be fixed immediately

Result:

The Social Fitness App prototype was evaluated using Nielsen’s 10 usability heuristics. Several usability issues were identified such as lack of feedback, inconsistent icon usage, and missing confirmation messages. The evaluation helped prioritize necessary improvements to enhance user experience.

Conclusion:

Heuristic Evaluation effectively identified key usability flaws in the Social Fitness App before the development stage. By applying Nielsen’s principles, the design became more user-friendly, consistent, and efficient. This practical enhanced our understanding of usability inspection methods in user-centered design.

Practical No. 5: Improving the User Interface of a Fitness Tracking App

Objective:
To enhance the UI of a fitness app focusing on simplicity, clarity, and motivational design.

Tool Used:
Figma

Reference Video:
Figma Fitness Mobile App Design | UI/UX Design 2021 | Techno-fine – YouTube

Theory:
A User Interface (UI) is the visual part of an application through which users interact with the system. It involves designing screens, layouts, icons, buttons, and navigation elements that enable the user to perform tasks efficiently. A well-designed UI enhances usability, accessibility, and user satisfaction.

1. Importance of UI in Fitness Apps:
   In fitness tracking applications, the user interface plays a crucial role in encouraging consistent engagement and motivation. Since users regularly track their physical activities, progress, and goals, the interface must be:
   • Simple – easy to navigate and understand at a glance.
   • Clear – providing organized data such as steps, calories, and workouts.
   • Motivational – inspiring users to maintain healthy habits through visuals, colors, and gamified rewards.
   A poorly designed UI can lead to confusion, lack of interest, and reduced app usage. Hence, UI improvement focuses on both functionality and emotional appeal.

2. UI/UX Design Principles Applied:
   While improving the UI of a fitness app, several UI/UX principles are applied:
   • Simplicity: Minimal text, clear icons, and intuitive navigation reduce cognitive load.
   • Clarity and Consistency: Use of readable typography, standard color schemes (greens and blues), and consistent layout patterns.
   • Visual Hierarchy: Arranging elements according to their importance—important stats like steps and calories appear at the top.
   • Feedback and Motivation: Badges, streak counters, and progress bars provide positive reinforcement.
   • Gamification: Adds fun and motivation through achievements, levels, and rewards.

3. Figma as a UI Design Tool:
   Figma is a powerful, browser-based UI/UX design tool used for:
   • Creating Wireframes and Prototypes: Designers can visualize app flow before development.
   • Collaborative Design: Multiple users can work on the same project in real-time.
   • Reusable Components: Buttons, cards, and icons can be reused for consistency.

• Interactive Prototyping: Enables creation of clickable app mockups to simulate real user experience.

4. Key Screens Redesigned:
   To improve the usability and attractiveness of the fitness tracking app, the following screens were redesigned:
   • Dashboard Screen: Displays daily statistics like steps, calories, and active minutes with clean visuals and graphs.
   • Goal Setting Screen: Allows users to set and track personalized goals using progress bars.
   • Activity Log Screen: Simplifies tracking of workouts and daily routines.
   • Progress Visualization Screen: Uses charts, badges, and streaks to motivate users through visual progress indicators.

5. Color Psychology in UI:
   Colors strongly influence user emotions. For a fitness app:
   • Green represents health, growth, and energy.
   • Blue symbolizes calmness, trust, and stability.
   These colors create a motivating yet relaxing environment for users.

6. Benefits of UI Improvement:
   • Increased user engagement and retention.
   • Enhanced motivation and goal achievement through gamified design.
   • Improved readability and accessibility for all user groups.
   • Strengthened brand identity through cohesive visual language.

Procedure:

1. Analyze an existing fitness tracking app's interface.
2. Identify improvement areas: complex navigation, unclear visuals, lack of motivation.
3. Redesign the following screens in Figma:
◦ Dashboard (clear daily stats)
◦ Goal Setting (with progress bars)
◦ Activity Log (easy tracking)
◦ Progress Visualization (charts or badges)
4. Use motivational colors (greens, blues), icons, and minimal text.
5. Add gamification elements like streak counters or badges.

Result:

Improved fitness tracking UI designed with an intuitive layout and motivational visual design.

Conclusion:

Through this practical, we understood the complete UI/UX process — from creating user personas to wireframes, prototyping, and interface improvement using Figma. The exercise enhanced practical design thinking, user empathy, and visual communication skills.

References:

1. How To Create A User Persona (Video Guide) – YouTube
2. How to Create A User Persona in 2022 [FULL GUIDE] – YouTube
3. E-learning Website Design in Figma – YouTube
4. Fitness App Design in Figma || Figma Tutorial – YouTube