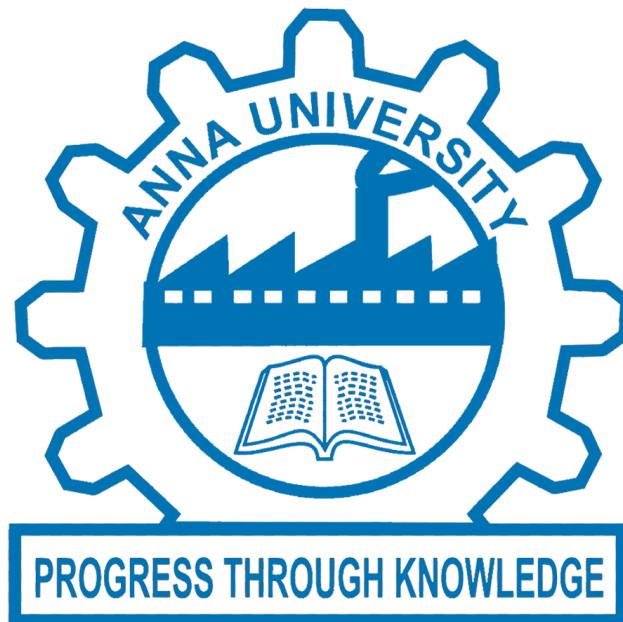


UNIVERSITY COLLEGE OF ENGINEERING KANCHEEPURAM

(A Constituent college of Anna University Chennai)

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING



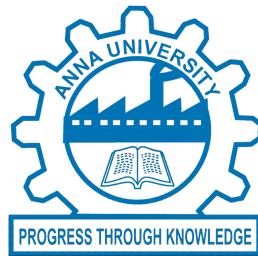
CCS370 UI AND UX DESIGN

Name: _____

Register no: _____

Year/Semester: _____ Branch: _____

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BONAFIDE CERTIFICATE

REGISTER NO

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Certified that this is the bonafide record of work done by
Mr/Ms..... of Fifth semester B.E. Computer Science
and Engineering Branch / Batch during the academic year 2025 to 2026 in the
CCS370-UI AND UX DESIGN.

Staff In-Charge

Head of the Department

Submitted for the University Practical examination held on

Internal Examiner

External Examiner

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EX.NO:1	Designing a Full Responsive Instagram-Societal Application

Designing a Full Responsive Instagram-Societal Application

AIM:

To design and develop a responsive layout for a societal application that adapts seamlessly across different screen sizes such as desktop, tablet, and mobile devices.

PROCEDURE:

1. Understand the Application Objective:

- Identify the societal problem addressed by the application (e.g., Women Safety, Blood Donation, Waste Management).
- Determine the key user goals and necessary features for usability and accessibility.

2. Layout Planning:

- Create a wireframe outlining the structure (header, navigation bar, main content area, and footer).
- Organize content based on hierarchy and importance.

3. Adopt a Mobile-First Approach:

- Begin designing for mobile screens to ensure functionality and smooth performance on smaller devices.
- Gradually scale and enhance features for larger screens.

4. Apply Responsive Design Principles:

- Use flexbox or CSS grid for dynamic layouts that adjust fluidly.
- Implement relative measurements (%), em, rem) for scalable components.

5. Implement Media Queries:

- Use CSS media queries to modify styles based on device width.

6. Optimize Typography and Media:

- Select readable, scalable fonts suitable for all screen sizes.
- Optimize images using responsive attributes (`max-width: 100%, height: auto`).

7. Test for Responsiveness:

- Test the layout across multiple devices and browsers using developer tools.
- Check for consistent spacing, alignment, and text readability.

8. Validate HTML and CSS:

- Validate the code using the **W3C Markup Validator** and **CSS Validator** for standard compliance.

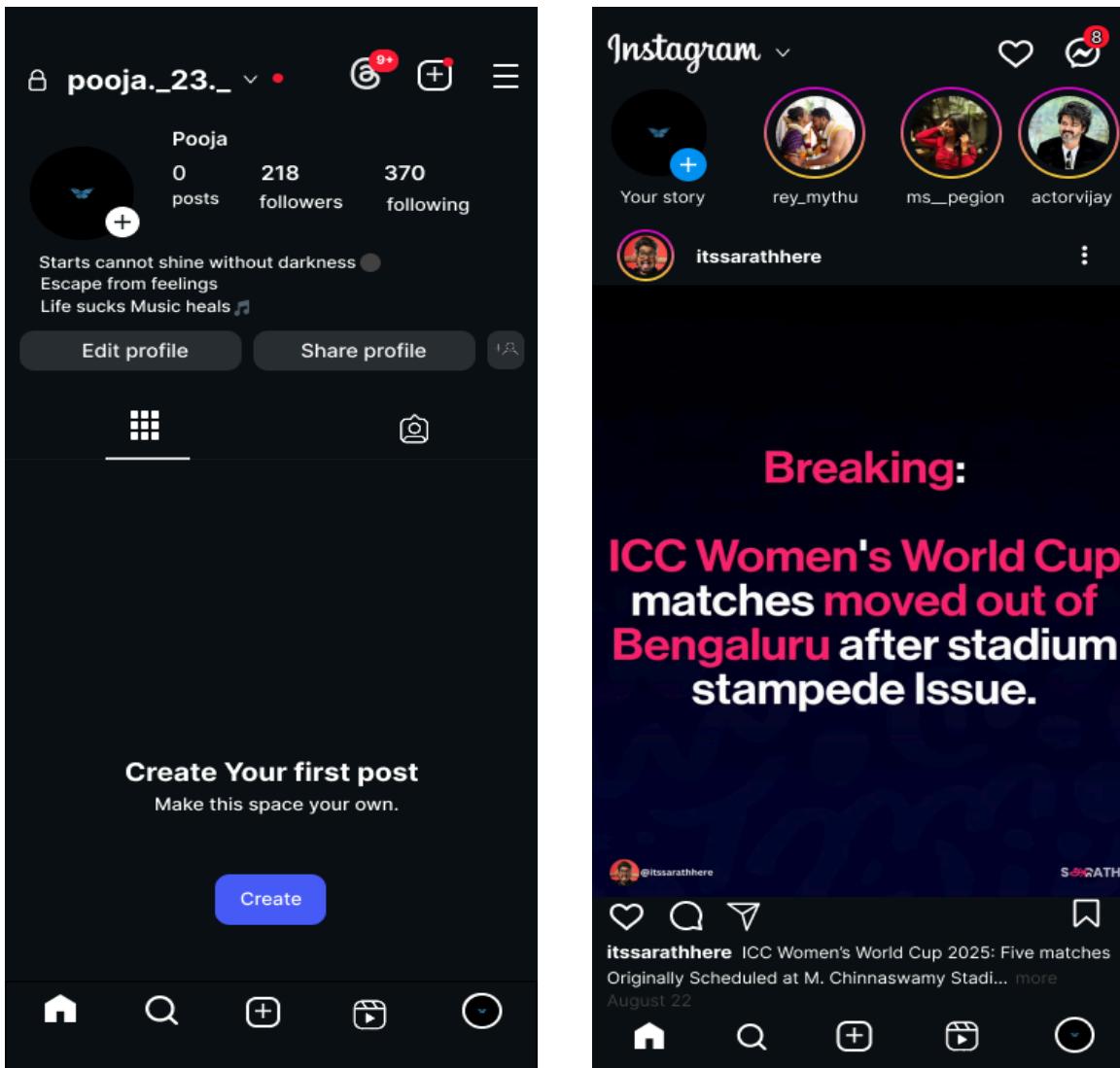
DESIGN:

Application Example: Instagram

Page Structure:

- **Header:** Logo, Verification Badge, and App Name.
- **Navigation Bar:** Home, Alerts, Tips, Help , Profile.
- **Main Content:** Instagram Reels, Feed Post, Lives and collaboration videos.
- **Footer:** Home, Search, Create, Reels, Profile.

OUTPUT:



RESULT:

Thus, the responsive layout for the societal application was successfully designed using HTML5, CSS3, and media queries, ensuring accessibility, usability, and proper adaptability across various screen sizes.

EX.NO:2	Exploring Various UI Interaction Patterns

Exploring Various UI Interaction Patterns

AIM:

To explore and understand various User Interface (UI) interaction patterns used in modern applications to create consistent, intuitive, and user-friendly experiences.

TYPES OF UI INTERACTION PATTERNS:

1. Navigation Patterns

- **Hamburger Menu:**
A collapsible icon (☰) used primarily on mobile interfaces to access navigation links.
- **Tab Bar:**
Displays horizontal tabs allowing quick navigation between major sections.
- **Dropdown Menu:**
Expands vertically to reveal additional options when clicked or hovered.
- **Accordion:**
Displays a list of expandable items, where one item opens at a time to save space.

2. Input Patterns

- **Form Validation:**
Provides real-time feedback on user input accuracy.
- **Autocomplete:**
Suggests text predictions to speed up data entry.
- **Date Picker:**
Allows users to select dates easily from a calendar interface.
- **Toggle Switch:**
Enables switching between two states such as ON/OFF or ENABLE/DISABLE.

3. Feedback Patterns

- **Toast Notifications:**
Small, temporary pop-up messages that confirm user actions.
- **Loading Spinners:**
Indicate ongoing background processes or data loading.
- **Error Messages:**
Clearly inform users about mistakes and how to correct them.

4. Gesture-Based Patterns

- **Swipe:**
Enables quick navigation or deletion through horizontal or vertical gestures.
- **Pinch and Zoom:**
Used to scale images or maps by zooming in and out.
- **Long Press:**
Reveals additional options or triggers alternate actions.

5. Search Patterns

- **Search Bar:**
A dedicated text field for user queries.
- **Faceted Search:**
Offers filters to refine search results based on attributes like price or category.

6. Onboarding Patterns

- **Tutorial Walkthrough:**
Step-by-step guides introducing new users to core features.
- **Progressive Disclosure:**
Gradually reveals advanced features to prevent user overload.

7. Media Patterns

- **Carousel:**
Rotating display of images or content panels for featured items.

- **Lightbox/Modal:**
Overlays content on the main screen to focus attention without leaving the page.

8. Card-Based Patterns

- **Card Grid:**
Displays content blocks in a grid layout, each representing an individual entity.
- **Expandable Cards:**
Expand to show more details without navigating away.

9. Social Interaction Patterns

- **Like/Heart Button:**
Lets users express approval or appreciation for content.
- **Comment Threads:**
Organize user discussions hierarchically for easy readability.

10. Progress Indicators

- **Progress Bar:**
Visually represents the completion percentage of a task.
- **Step Indicator:**
Guides users through multi-step processes, such as checkout or form completion.

RESULT:

Thus, various UI interaction patterns were successfully explored and studied, helping understand how consistent interface behaviors enhance user experience and usability across applications.

EX.NO:3	Developing An InterFace with Proper UI Style Guides

Developing An InterFace with Proper UI Style Guides

AIM:

To design and develop a user interface by following proper UI style guidelines to ensure consistency, visual harmony, accessibility, and improved user experience.

PROCEDURE:

1. Color Palette

- **Objective:**
Define a consistent color scheme to establish the visual identity of the interface.
- **Steps:**
 - Select a **primary**, **secondary**, and **accent** color to maintain balance and readability.
 - Follow the **60-30-10 rule**: 60% dominant color, 30% secondary color, 10% accent color.
 - Ensure sufficient contrast between text and background for accessibility.

Examples:

- **Warm Colors:**
Evoke comfort, energy, and warmth (e.g., Red, Orange).
Used by brands like Coca-Cola and Netflix



- **Cool Colors:**

Reflect trust, calmness, and stability (e.g., Blue, Green).

Used by brands like IBM and Dell.



Example Color Scheme for Interface:

- Primary Color: #FF90C2 (Royal Purple)
- Secondary Color: #ED5AB3 (Vivid Pink)
- Accent/Highlight Color: #FFFFFF (White)

2. Typography

- **Objective:**

Select typefaces that improve readability and establish a clear hierarchy.

- **Guidelines:**

- Use **sans-serif** fonts (e.g., Inter, Roboto) for modern and professional designs.
- Avoid using too many font types; maintain consistency across headings, subheadings, and body text.
- Ensure fonts are scalable and legible on different screen sizes.
- Maintain visual hierarchy using different font weights and sizes.

Typography Principles:

- Limit to 2–3 typefaces per project.
- Use appropriate spacing and line height for readability.
- Emphasize clarity, contrast, and accessibility.

3. Iconography

- **Objective:**

Use clear and meaningful icons to communicate actions and information quickly.

- **Principles of Icon Design:**

- **Clarity:** Easy to recognize and understand.
- **Consistency:** Uniform style throughout the application.
- **Alignment:** Proper positioning and visual balance.
- **Readability:** Legible at all sizes.
- **Simplicity:** Avoid unnecessary details.

Tip: Use flat, minimal icons for a clean and professional look.

4. Layout and Spacing

- **Objective:**

Maintain proper alignment and spacing to achieve a visually balanced interface.

- **Guidelines:**

- Use a **grid system** (e.g., 12-column layout) to structure content uniformly.
- Follow the **4-point spacing system** (4, 8, 12, 16, etc.) for consistent gaps.
- Keep adequate whitespace to separate distinct content sections and reduce clutter.

5. UI Components

- **Buttons:**

- Use distinct styles for **Primary**, **Secondary**, and **Tertiary** actions.
- Ensure adequate padding and clear labels (e.g., “Submit”, “Buy Now”).

- Use color contrast to differentiate positive and neutral actions.

- **Forms:**

- Design input fields, dropdowns, and checkboxes with clear borders and labels.
- Include validation feedback for correct and incorrect inputs.

- **Navigation:**

- Maintain a simple and intuitive navigation bar.
- Highlight active pages and ensure consistent placement across screens.

- **Alerts and Notifications:**

- Differentiate messages using color codes (Success: Green, Warning: Yellow, Error: Red).
- Use animations subtly to grab user attention.

IMPLEMENTATION:

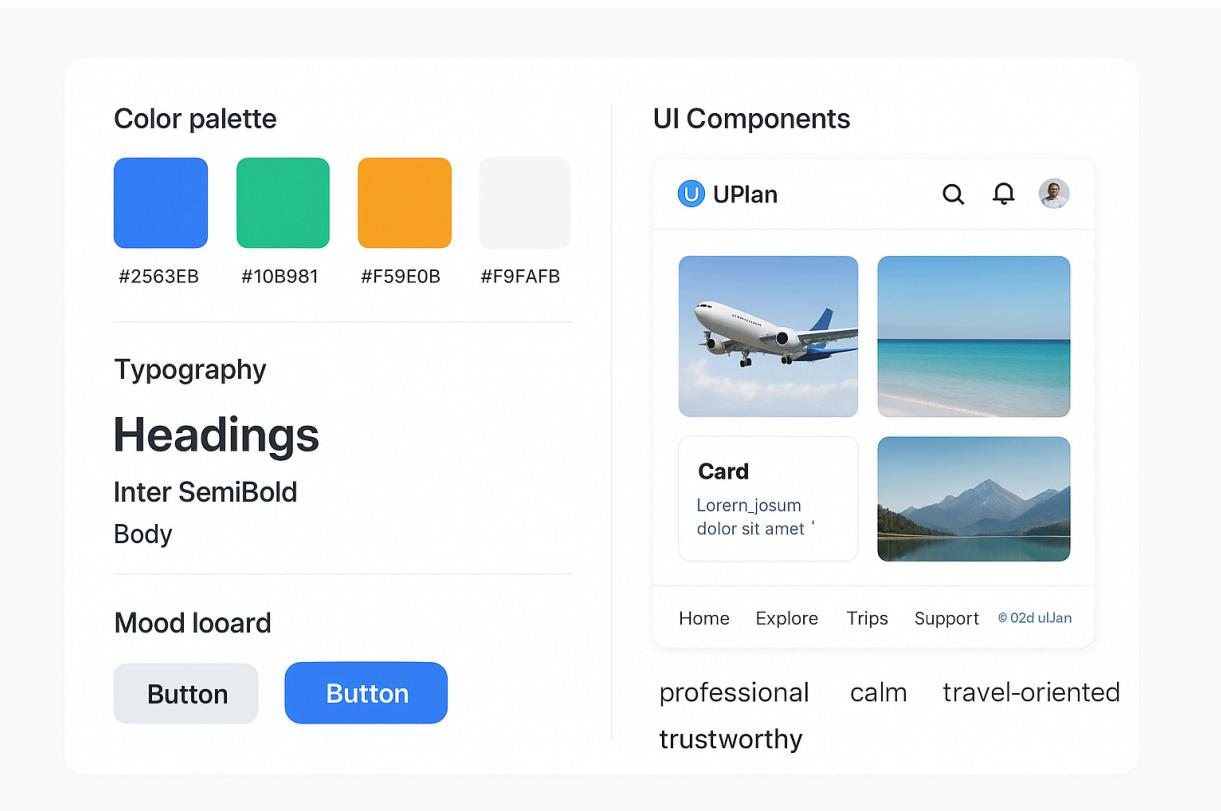
We developed a user interface for an **online shopping** following the above style guidelines.

- **Primary Color:** #FF90C2 (Pastel Magenta)
- **Secondary Color:** #ED5AB3 (Vivid Pink)
- **Typography:** Fonts used – *Inter* (modern sans-serif) and *Irish Grover* (decorative accent).
- **Icon Style:** Flat icons for a clean aesthetic.

Layout Includes:

- Home screen with banner, category cards, and navigation bar.
- Product listing screen with responsive grid design.
- Cart and checkout screens maintain consistent spacing and button styles.

Style Guide For User interface Application:



RESULT:

Thus, a user interface was successfully developed by following proper UI style guides, ensuring design consistency, usability, and visual appeal across all application screens.

EX.NO:4	Developing Wireflow Diagram For Application Using Open Source Software

Developing Wireflow Diagram For Application Using Open Source Software

AIM:

To develop a wireflow diagram for the proposed **UPlan** application using an open-source tool, representing both the user interface wireframes and the logical flow of traveler interactions between screens.

PROCEDURE:

1. Understanding Wireflow Diagrams:

- A wireflow diagram combines wireframe concepts with flowcharts to visually represent how travelers navigate through different screens and how each interface component connects to another.

2. Choosing an Open-Source Tool:

- Selected Lucidchart for wireflow diagram creation due to its simplicity and collaborative features.

3. Starting a New Document:

- Logged in to Lucidchart and created a new document using a Mobile Wireframe Template suitable for the project.

4. Adding Screens and Components:

- Designed basic wireframes for screens including: Splash Screen, Login, Signup, Home, Destination Search, Itinerary Planner, Map View, Bookings, and Profile.
- Added UI components such as buttons, input fields, cards, and navigation bars.

5. Connecting Screens:

- Used arrows/connectors to depict traveler navigation paths between screens.
- For example: *Login → Home → Destination Search → Bookings → Itinerary → Profile*

6. Labeling and Annotation:

- Clearly labeled each screen and added brief notes describing key functionalities.
- Example: “*SOS button directs to emergency support; quick access to trip booking from the itinerary.*”

7. Customizing Appearance:

- Adjusted fonts, shapes, and colors to maintain clarity and brand consistency.

8. Previewing and Testing:

- Used previews to simulate user flow, ensuring transitions and navigation were logical and intuitive.

9. Sharing and Exporting:

- Shared the wireflow with team members for feedback, then exported the final diagram as PDF and PNG for documentation.

IMPLEMENTATION:

Tool Used: Lucidchart

Application: *Online Travel app-UPlan*

Designed Screens:

- **Splash Screen:** Displays app logo and tagline.
- **Login Screen:** Fields for username, password, and “Forgot Password” option.
- **Signup Screen:** New user registration with input validation.
- **Home Screen:** Displays featured categories, offers, and search bar.
- **Profile Screen:** Displays user details and settings.

Wireflow Description:

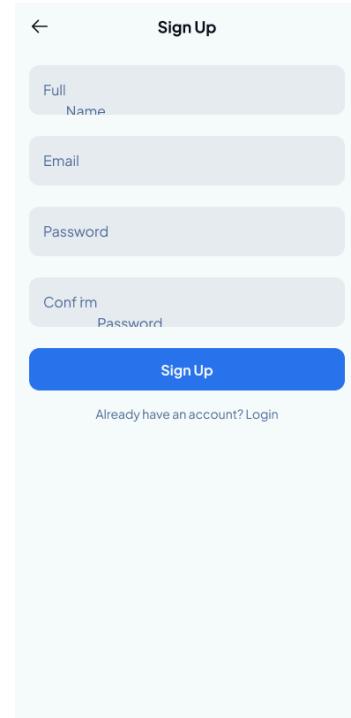
All screens are interconnected logically—starting from the splash screen to login/signup, leading to home and product flows, and finally to checkout and profile management. The wireflow ensures intuitive navigation and minimal user friction.



The Login screen features a header with the brand name "UPlan" and a help icon. Below the header are two input fields: "Email" and "Password". A "Forgot Password?" link is positioned between the fields. A large blue "Login" button is centered at the bottom.

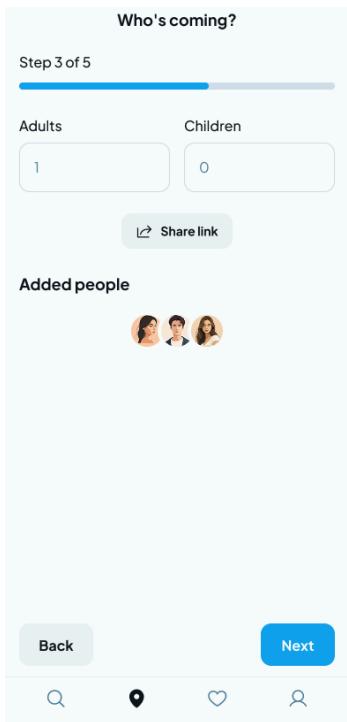
Don't have an account? [Sign Up](#)

LOGIN SCREEN

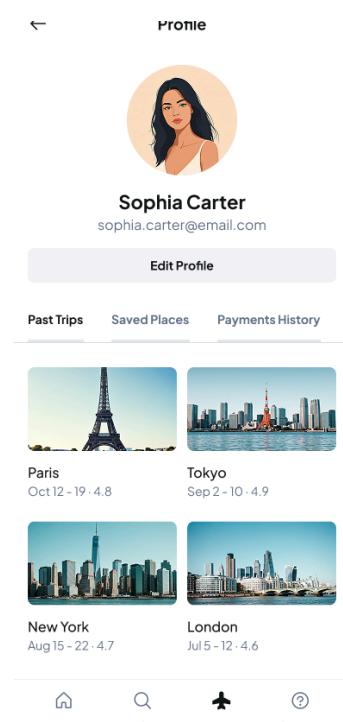


The Sign Up screen has a header with a back arrow and the text "Sign Up". It contains four input fields: "Full Name", "Email", "Password", and "Confirm Password". A large blue "Sign Up" button is at the bottom. Below the button, a link reads "Already have an account? [Login](#)".

SIGN UP SCREEN



ABOUT SCREEN



PROFILE SCREEN

RESULT:

Thus, the wireflow diagram for the application was successfully designed using the Lucidchart open-source tool. It effectively represents the structure, screen connectivity, and overall user navigation flow of the application.

EX.NO:5	Exploring Various Open Source Collaborative Interface Platform

Exploring Various Open Source Collaborative Interface Platform

AIM:

To explore and understand various open-source and cloud-based collaborative interface design platforms that support UI/UX development through teamwork, prototyping, and real-time collaboration.

1. FIGMA

Overview:

Figma is a cloud-based UI/UX design and prototyping tool that allows multiple users to work on the same project simultaneously. It supports real-time collaboration, making it highly effective for distributed design teams.

Key Features:

- **Cloud Collaboration:** Multiple users can edit the same design in real-time.
- **Platform Independence:** Works directly in browsers across all operating systems.
- **Vector Editing Tools:** Enables creation of scalable UI components.
- **Prototyping:** Allows linking screens and adding interactions to simulate user flow.
- **Plugins and Libraries:** Supports third-party plugins and shared component libraries.

Advantages:

- Real-time editing and commenting.
- Easy asset sharing and version tracking.
- No installation required—completely browser-based.

2. SKETCH

Overview:

Sketch is a vector-based UI design tool primarily used for macOS. It provides a streamlined workflow for creating digital interfaces and interactive prototypes.

Key Features:

- **Vector Graphics Support:** Ensures scalability and precision in UI design.
- **Artboards:** Allows designers to work on multiple screen layouts simultaneously.
- **Symbols and Shared Styles:** Promotes reuse of design components for consistency.
- **Plugin Ecosystem:** Enhances functionality through third-party integrations.
- **Responsive Design Tools:** Preview designs across multiple devices and resolutions.

Advantages:

- Efficient and lightweight tool optimized for macOS.
- Strong integration with developer handoff tools.
- Ideal for static and responsive design creation.

3. ADOBE XD

Overview:

Adobe XD is a vector-based UI/UX design and prototyping tool developed by Adobe. It enables designers to create wireframes, mockups, and interactive prototypes for web and mobile applications.

Key Features:

- **Prototyping and Animation:** Create realistic transitions using the Auto-Animate feature.
- **Repeat Grid:** Easily duplicate design elements for lists or grids.
- **Responsive Resize:** Automatically adjusts designs to fit various screen sizes.
- **Collaboration Tools:** Enables design sharing, commenting, and co-editing.
- **Integration:** Seamlessly connects with Adobe Creative Cloud (Photoshop, Illustrator).

Advantages:

- Fast and intuitive prototyping workflow.
- Easy asset export for developers.
- Strong integration within Adobe's design ecosystem.

4. INVISION STUDIO

Overview:

InVision Studio is a design and prototyping platform that combines advanced animation, responsive design, and collaborative features into one unified tool.

Key Features:

- **Responsive Layouts:** Automatically adapts designs across different screen sizes.
- **Timeline Animations:** Enables creation of smooth, interactive transitions.
- **Shared Design Libraries:** Maintains consistency across design teams.
- **Design-to-Code Handoff:** Allows developers to extract assets and style details easily.
- **Real-Time Collaboration:** Supports multiple users working on the same project concurrently.

Advantages:

- Combines design, prototyping, and collaboration in one platform.
- Strong animation tools for interactive experiences.
- Integration with InVision Cloud for feedback and version control

RESULT:

Thus, various open-source and collaborative interface design platforms such as Figma, Sketch, Adobe XD, and InVision Studio were successfully explored. Their features and advantages were analyzed, highlighting their importance in creating efficient, consistent, and collaborative UI/UX design workflows.

EX.NO:6	Hands On Design Thinking Process For UPlan Application

AIM:

To apply the **Design Thinking** process to enhance the user experience and interface design of the Travel App, identifying traveler needs, defining problems, ideating creative solutions, and developing prototypes for a more user-centric digital travel product.

The **five stages** of Design Thinking applied in this experiment are:

1. **Empathize**
2. **Define**
3. **Ideate**
4. **Prototype**
5. **Test**

1. EMPATHIZE

Objective: Understand user behavior, pain points, and motivations through research and observation.

Methods Used:

- Conducted surveys and interviews with frequent and occasional travelers.
- Observed user challenges in planning trips, booking activities, and using current travel apps.

Findings:

- Travelers face frustration with scattered information, complicated bookings, and unreliable local guidance.
- There is a strong need for curated recommendations, easy itinerary management, and real-time updates.

User Persona Example:

- **Name:** Fathima
- **Age:** 22
- **Occupation:** Employee
- **Pain Points:** Booking confusion, information overload, difficulty finding local experiences.
- **Goals:** Simple, seamless trip planning with trustworthy info and tailored suggestions.

2. DEFINE

Objective: Frame a clear and actionable problem statement based on traveler research.

Problem Statement:

“Users experience dissatisfaction due to fragmented travel information, complex itinerary building, and limited access to personalized recommendations in travel applications.”

User Journey (Travel Planning Flow):

1. **Inspiration** → Browse destinations on social media/discover tab
2. **Onboarding** → Creates account, enters travel interests
3. **Exploration** → Searches and explores destinations, activities, deals
4. **Itinerary Building** → Adds attractions, bookings, and transport to their plan
5. **Booking & Confirmation** → Books flights, hotels, and tours
6. **On-Trip Assistance** → Uses maps, receives live alerts, accesses help
7. **Reflection** → Shares feedback, uploads photos, rates experiences

3. IDEATE

Objective: Generate innovative ideas to solve the identified traveler problems.

Brainstormed Solutions:

- Unified dashboard for trip planning and bookings

- Personalized itineraries using AI-based recommendations
- In-app map with live crowd/weather/activity info
- Streamlined booking/confirmation with local support
- Chatbot for instant travel assistance and safety alerts

Low-Fidelity Wireflow Example:

Sketches created for the following screens:

- Home (Destination inspiration)
- Search Results (Destinations/experiences)
- Itinerary Builder
- Booking/Payment
- Live Map & Guide
- Trip Summary

4. PROTOTYPE

Objective: Develop interactive mockups representing the visual layout and functionality of the *Travel App*.

Tool Used: Figma

Prototype Features:

- Calm color palette (sky blue, sunset orange, sand beige)
- Home page with discover section and quick search
- Drag & drop itinerary planning
- One-tap booking/payment
- Live assistance button and travel tips widget

5. TEST

Objective: Validate the design by conducting usability testing with real travelers.

Testing Method:

- Scenario-based walkthroughs for adding a trip, managing an itinerary, booking activities, and using live map features
- Collected feedback on navigation clarity, information display, and support accessibility

Findings:

- Users loved the all-in-one trip dashboard and visual itinerary
- Requested more offline options and customized local recommendations
- Suggested improving the visibility of emergency contacts and guide help

6. ITERATE

Objective: Refine the prototype based on user feedback.

- Added filters for interests, travel style, and budget
- Enhanced offline usability and map accessibility
- Improved the discover and recommendation engine for relevance

7. FINAL IMPLEMENTATION

Resulting Design:

A polished, user-friendly shopping interface with:

- Effortless trip creation and management
- Smart, tailored destination/experience recommendations
- Streamlined bookings and itinerary views
- Clear offline support and emergency access

RESULT:

The interface effectively combines clarity, functionality, and appeal to enhance the user experience for modern travelers. It ensures intuitive exploration, seamless booking, and personalized travel planning on all devices.

EX.NO:7	Brain Storming Feature For UPlan App

AIM:

To brainstorm and identify innovative features that enhance the functionality, usability, and overall user experience of the proposed travel application.

PROPOSED INNOVATIVE FEATURES**1. Destination Reviews and Ratings**

- Enables travelers to share their experiences and rate destinations and attractions.
- Includes verified traveler badges for authenticity.
- Allows sorting reviews by date, popularity, or helpfulness.
- Displays average ratings for each destination or service.

2. Detailed Travel Information

- Provides comprehensive details including weather, local customs, transportation options, and attraction hours.
- Offers multiple photos and 360° virtual tours.
- Includes travel tips and safety guidelines.
- Adds a Q&A section for real-time traveler inquiries.

3. User-Generated Content

- Allows users to upload photos and videos from their trips.
- Includes tagging of locations, commenting, and liking features.
- Introduces "Featured Traveler" sections to highlight top contributors.

4. Smart Travel Planner

- Enables creation of tailored travel itineraries.

- Suggests activities based on user preferences, season, and local events.
- Allows voice input and seamless itinerary adjustments.

5. Personalized Discounts and Offers

- Uses AI to analyze travel patterns and suggest customized discounts.
- Offers loyalty rewards, seasonal offers, and exclusive partner deals.
- Push notifications alert users to flash sales or new travel packages.

6. Group Travel Coordination

- Allows users to create and share group travel plans.
- Provides real-time updates and group chat functionality.
- Includes options for shared expenses and payments.

7. Subscription and Travel Packages

- Offers personalized travel subscription boxes with curated experiences or services.
- Users can select preferences and scheduling options.
- Allows pausing or delaying subscriptions for flexibility.

8. Trend Spotting and Recommendations

- Highlights popular destinations and travel trends.
- Uses influencer suggestions and editorial picks.
- Includes “Travel the Look” with recommended outfits and packing tips.

9. Wishlist and Favorites

- Enables saving preferred destinations or trips for future planning.
- Supports multiple wishlists (e.g., Adventure, Relaxation).
- Sends alerts on price drops or special deals for wishlist items.
- Allows sharing wishlists with friends and family.

10. Social Media Integration

- Supports login via social accounts for quicker onboarding.
- Users can share their travel stories, photos, and itineraries on social platforms.
- Integrates a community feed for traveler interaction and inspiration.

11. Collaboration and Collections

- Partners with **travel influencers** and guides for curated experiences.
- Allows users to build and share custom travel collections.
- Features limited-time offers and exclusive travel deals.

RESULT:

Through brainstorming, these innovative features aim to improve user satisfaction, drive engagement, and establish the travel app as an intelligent, interactive, and highly personalized platform for modern travelers.

EX.NO:8	Defining The Look and Feel of the UPlan Application

Defining The Look and Feel of the UPlan Application

AIM:

To define the overall look and feel of the proposed project — *UPlan*, a travel planning and booking application — by establishing its visual direction, mood, and user experience goals based on UI/UX design principles.

PROCEDURE:

1. Project Overview

- **Project Name:** UPlan
- **Purpose:**
To create an engaging, user-friendly, and visually appealing travel and trip planning platform designed to inspire and assist travelers.
- **Goal:**
To design an interface that enhances user satisfaction, promotes effortless navigation, and aligns with the brand's identity of adventure, trust, and seamless exploration.

Key UI/UX Design Goals:

- High usability tailored to travelers' needs and contexts.
- Strong brand identity evoking exploration and reliability.
- Consistent experience across mobile, tablet, and desktop.
- Enhanced engagement through intuitive and delightful interface elements.

2. Mood Board Creation

- **Objective:** To visually define the brand's personality and tone through images, color themes, and typography.
- **Method:**

Collected visual inspirations from travel photography, lifestyle magazines, and leading travel brands.

Mood Board Elements:

- Cool, soothing color tones like sky blue and coral to evoke exploration and comfort.
- Elegant and clean typography for readability and modern feel.
- Minimalistic and spacious layouts emphasizing clarity and ease.

3. Color Palette Selection

- **Objective:** To choose colors that reflect travel spirit while ensuring readability and accessibility..
- **Selected Palette:**
 - **Primary Color:** #4FC3F7 (Sky Blue) – Represents open skies and trust.
 - **Secondary Color:** #FFA726 (Coral Orange) – Highlights CTAs and adventure warmth.
 - **Neutral/Background:** #FBE9E7 (Sand Beige) – Provides calm balance and contrast.

Color Psychology:

- **Blue:** Trust, freedom, and serenity.
- **Orange:** Energy, creativity, and enthusiasm.
- **Beige:** Warmth and balance, soothing for visual comfort.

Accessibility Consideration:

- Ensured color contrast ratios for text/background to meet WCAG standards.

4. Typography

- **Objective:** To establish a consistent typographic hierarchy.
- **Chosen Fonts:**
 - **Primary Font:** Poppins — clean, modern sans-serif used for body and labels.

- **Accent Font:** Playfair Display — decorative serif for headings to evoke elegance.

Typography Guidelines:

- Use font weights for clear hierarchy: bold for headings, regular for body text.
- Ensure responsive scaling for readability on all devices.
- Maintain sufficient line height and spacing for comfort.

5. Imagery and Iconography

- **Objective:** To select imagery and icons that communicate the app's travel purpose clearly.
- **Imagery:**
 - High-quality photos of landscapes, destinations, and cultural experiences.
 - Light, natural tones with minimal filters for authenticity.
- **Icons:**
 - Clean, flat icons with consistent stroke width.
 - Themes: travel (planes, hotels, maps), navigation, booking, user profile.
 - Avoid overly complex or detailed icons for clarity.

Guideline: Maintain visual consistency and avoid overly detailed icons.

6. Designing Visual Components

- **Objective:** To maintain consistency in UI components.
- **Components Designed:**
 - **Buttons** with rounded corners and drop shadows in primary and secondary colors.
 - **Cards** displaying destinations, travel packages, and trip details.
 - **Fixed navigation bar** with clear icons for Home, Explore, Bookings, Profile.

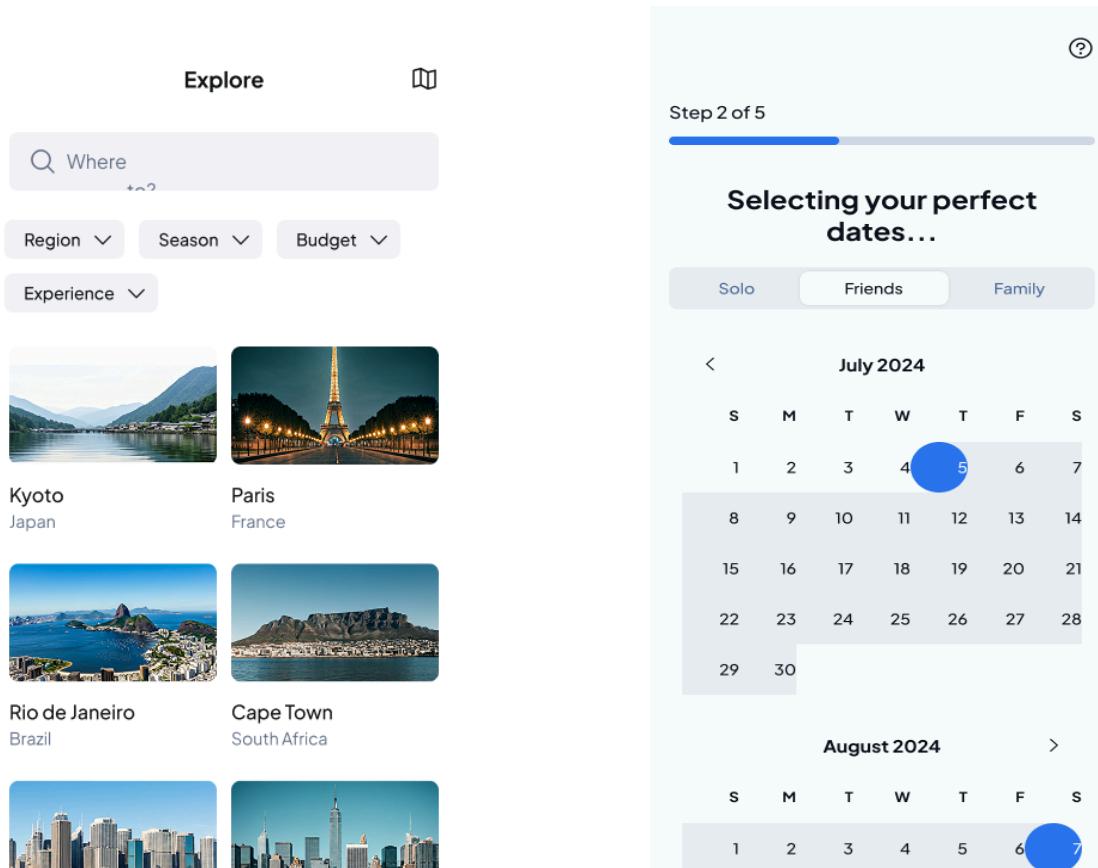
- Harmonized typography spacing and alignment across components.

Implementation Outcome:

The visual components integrated to form a cohesive and inviting travel app prototype, reflecting the selected mood board, color scheme, and typography standards.

7. Prototyping and Feedback

- Created clickable prototypes using Figma.
- Conducted peer and user testing sessions.
- Collected feedback on usability, visual appeal, and feature accessibility.



RESULT:

Thus, the look and feel of the *UPlan App* were successfully defined by creating a consistent visual identity using appropriate color palettes, typography, imagery, and UI components. The design establishes a modern, elegant, and user-friendly interface aligned with brand objectives.

EX.NO:9

Create a Sample Pattern Library For UPlan Application (MoodBoard, Fonts..)

AIM:

To create a Pattern Library for the product that defines the visual style, including mood board, font styles, and color palette, ensuring design consistency and alignment with UI/UX principles.

PROCEDURE:

1. Identify Product Theme

- UPlan – Adventure & Discovery App
- Purpose & Tone: Friendly, Inspiring, Trustworthy, and Fresh
- Visual style focuses on clean visuals, encouraging exploration and seamless trip planning.

2. Create a Mood Board

- Collected images of diverse destinations, travelers, and nature scenes (see: India, Kerala, Africa, Nile River National Park, and tropical beaches in the app screen).
- Visuals reflect adventure, freedom, and relaxation.
- Calm green and yellow tones represent harmony with nature and optimistic travel.

3. Select Fonts

- Primary Font: Poppins (for headings — modern, inviting, highly readable)
- Secondary Font: Roboto (for descriptions and body text — clear, versatile, well-suited for screens)
- Font hierarchy is consistent, maintains readability across cards, inputs, and labels.

4. Choose Colors (Based on UI Principles)

- 60–30–10 Rule:
 - 60% Primary color (background & large components): #146531 (Travel Green – adventure & trust)
 - 30% Secondary color (navigation, cards, inputs): #1C7C3E (Lush Green – growth & calm)
 - 10% Accent color (buttons, highlights): #F4B400 (Accent Yellow – energy & guidance)
- Additional:
 - Text Black: #1A1A1A (for strong contrast)
 - Dark Gray: #555555 (for secondary info)
 - White: #FFFFFF (background, cards)
 - Light Gray: #E5E5E5 (dividers, card shadows)

5. Build Component Samples

- Buttons: Rounded, filled green (primary), or accent yellow for important CTAs (“View Location”).
- Input Fields: Generous padding, rounded corners, clear labels.
- Cards: White backgrounds, rich imagery, soft shadows, and clean separators.
- Navigation Bar: Fixed at top/bottom with easy access, consistent icons and typography.

6. Test and Document

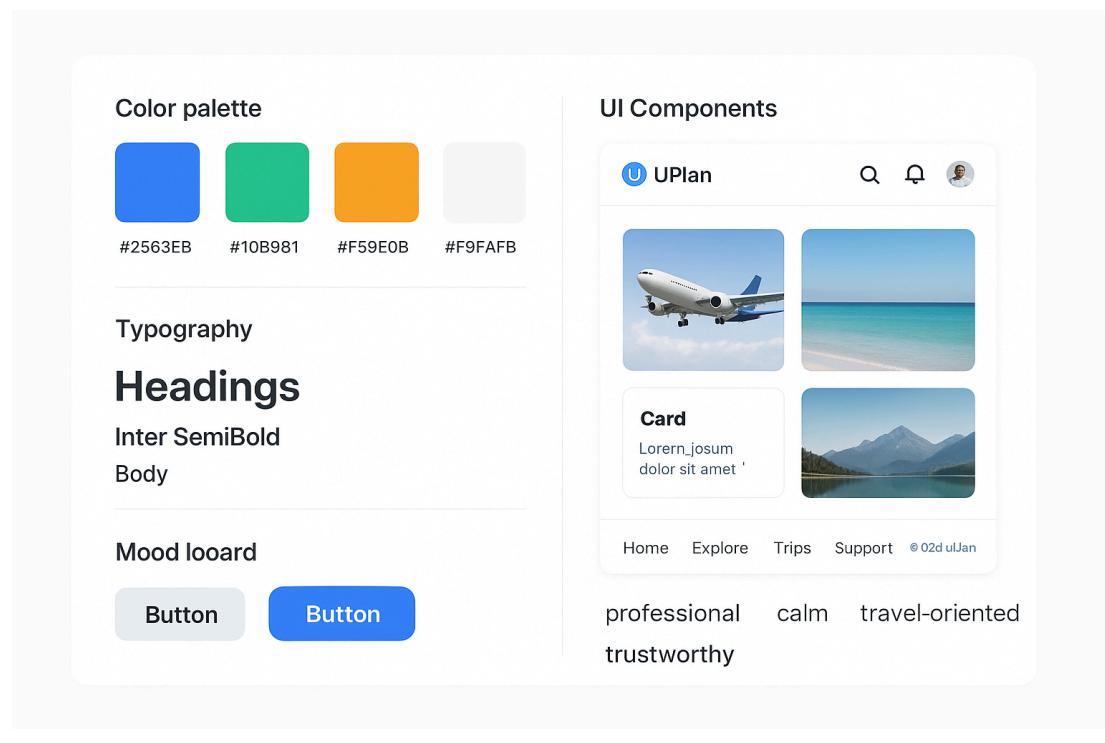
- Applied the pattern library to sample screens:
 - Home: Welcoming profile CTA, destination carousel, recommended locations grid/card.
 - Detail: Large image, primary CTA (“View Location”), and sub-details section.
- Checked all important UI elements for color contrast, tap size, font uniformity, and mobile responsiveness.
- Documented all pattern decisions in Figma for reference and future development.

COMPONENTS:

A Pattern Library Board containing:

- **Mood Board Visuals:** Landscape photos of destinations, happy travelers, adventure moments
- **Font Hierarchy:** Poppins Bold for headings, Roboto Regular for body text
- **Color Palette Swatches:** Featured as in the palette panel: primary green, accent yellow, supportive grays
- **Sample Components:** Modern cards (location previews, details), filled green buttons (“View Location”), CTAs for “Complete Profile”
- **Layout System:** Ample card margins, grid-aligned carousel, readable text and button spacing.

SAMPLE:



Step 4/5

Where to stay & eat?

Price
Rating
Distance

4.5

The Grand Majestic

1.2 km from city center · ₹1,500/night

Book



4.2

Urban Retreat

2.5 km from city center · ₹1,200/night

Book



4.8

Serenity Suites

0.8 km from city center · ₹2,000/night

Book



4.0

Cityscape Inn

3.0 km from city center · ₹1,000/night

Book



Back

Next

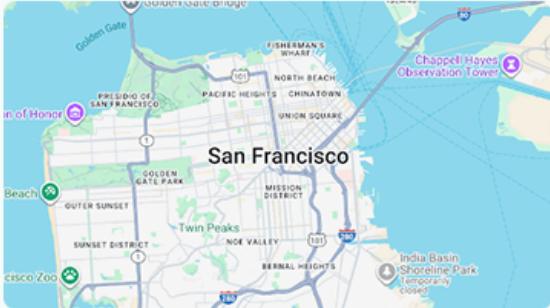
Trip Setup

Step 5 of 5

Itinerary

Drag and drop to create your itinerary

+



RESULT:

Thus, we have created a sample pattern library for our safe UPlan App.

EX NO:10	Identify a Customer Problem To Solve

AIM:

To identify a common challenge faced by customers in travel planning and provide a technology-based solution to improve trip experience and traveler satisfaction.

EXPLANATION:

- In travel, customer satisfaction depends on reliable trip information, seamless booking, real-time updates, and responsive support. Many travelers face issues like confusing itineraries, lack of timely notifications, and difficulty finding live guidance.

- By leveraging travel technology—such as live itinerary tracking, location-aware alerts, and in-app chatbot support—these issues can be solved efficiently. Identifying traveler pain points helps create smarter, smoother, and more delightful trips.

PROBLEM FACED BY THE CUSTOMER:

Travelers often face incomplete or delayed trip updates and support during their journeys.

Common issues include:

- Unclear or outdated itinerary notifications.
- No live tracking of bookings or trip activities.
- Delays or changes without instant alerts.
- Limited communication with travel support or local guides.

PROPOSED SOLUTION:

Develop a Smart Travel Companion App that:

- Provides real-time itinerary and booking tracking.
 - Sends automatic location-based and schedule updates via app/SMS.
 - Predicts potential delays using live data and AI suggestions.
 - Offers in-app chatbot for instant traveler support and local tips.
- This system ensures transparency, reduces traveler stress, and builds trust between users and travel platforms.

PROCEDURE:

1. **Customer Problem Identification:**
Identifying major pain points in the travel journey.
2. **Customer Needs Analysis:**
Understanding the need for real-time planning, regular updates, and follow-along guidance.
3. **Data Collection:**
Using traveler feedback, review analysis, and trip records.
4. **Problem Definition:**
Delays, missed updates, and lack of visibility in travel planning and activity schedules.
5. **Idea Generation:**
Utilizing live maps, GPS, notifications, and smart reminders for real-time trip management.
6. **Proposed Solution Design:**
Creating a unified tracking and alert system for all trip elements.
7. **Implementation:**
Integrating GPS, travel APIs, and notification services into the app.
8. **Expected Outcome:**
Smoother journeys with fewer missed activities, clearer updates, and more confident travelers.

RESULT:

The proposed smart travel system helps users get live updates, reduces missed activities or delays, and enhances overall travel satisfaction and trust.

EX NO:11	Conduct End-To-End User Research

AIM:

To conduct end-to-end user research in order to understand traveler needs, behaviors, and challenges, and to collect insights that help develop user-centered travel solutions.

EXPLANATION:

- End-to-end user research studies travelers throughout their interactions with a travel app or service. It identifies what users want, challenges they face, and how they interact with trip planning and booking systems.
- Research methods include surveys, interviews, and observation. The collected data informs design of better, intuitive, and efficient travel experiences.

USER RESEARCH SURVEY (About the Users):**1. User Profile:**

- Name: _____
- Age: _____
- Occupation: _____
- Location: _____

2. Usage Information:

- How often do you use travel planning or booking apps?
 Daily Weekly Monthly Rarely
- Which platform do you use most for planning or booking trips?
 Airbnb Booking.com Local Travel Agencies Others

3. Problem Identification:

- Have you ever experienced difficulties or delays while planning or booking a trip?
 Yes No

- Are you satisfied with the real-time updates and notifications you receive during trips?
 - Yes
 - No
- What is your biggest challenge when using travel apps?
 - Booking complexity
 - Lack of real-time information
 - Poor itinerary management
 - Insufficient local support

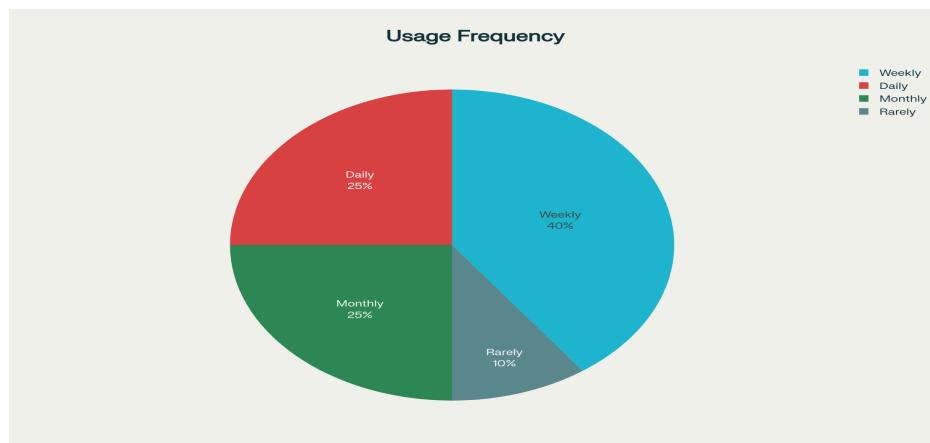
4. User Expectations:

- Would you prefer live tracking of your trips and bookings?
 - Yes
 - No
- How would you like to receive updates?
 - SMS
 - Email
 - App Notifications

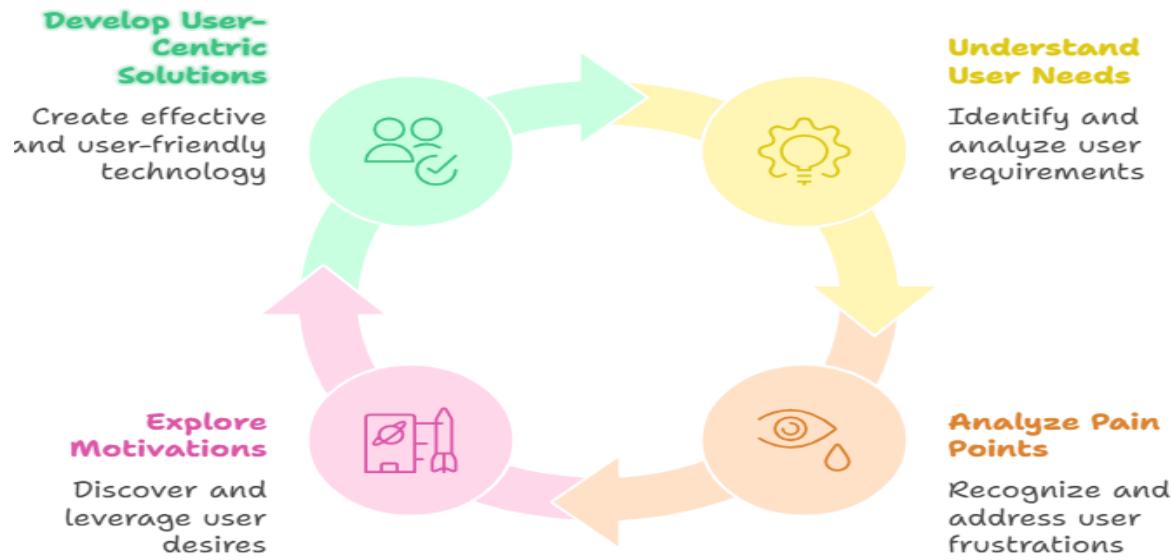
5. Suggestions:

- What improvements would you like to see in travel apps for better planning and trip experience?

SURVEY ABOUT THE USERS:



Empathy Map Cycle for Travel Technology



USER PERSONA:

Assaf

About

- 28 Years old.
- 9K per month.
- Rent apartment in Tel Aviv
- Medium- High Tech proficiency.

Why he get to the market ?

Price	Local food
Quality	Vibes

I love doing my shopping at the market, but I wish to finish it quickly so I could get something to eat

Core Needs

- Find exactly where are the groceries he wants.
- Remembers where to find each shops he liked.
- Makes shopping faster with direct route.
- Finds a vegetarian place to eat.
- Find a new and recommended place to eat.

Motivation

- Loves the market vibes and variety.
- Usually finds something new to try.
- Easy access to things he needs
- Love the market location and like to hang around after he finishes shopping.

Pain Points

- Have a hard time to find a restaurant that serve vegetarian food.

2-3
Per month
Market visits

USER JOURNEY MAP:



COMPETITOR:

- Airbnb
- redBus
- GetYourGuide
- MakeMyTrip
- Goibibo

By this analysis and ideas we will start to build our app further.

RESULT:

The user research survey helped identify key problems such as delayed deliveries, lack of real-time tracking, and poor communication. These insights can be used to design an improved logistics tracking system.

EX NO : 12	Design a Prototype With Proper tool

AIM:

To design an interactive prototype of a travel planning application using popular design tools like Figma, focusing on personalized itineraries, live updates, and an intuitive user interface.

TOOL USE:

- Figma (or Adobe XD / Canva UX)
- Laptop/Desktop
- Internet connection

PROCEDURE

Step 1: Identify the Purpose

- Define the main goal of the travel app — for example, personalized trip recommendations, itinerary management, and live activity updates.

Step 2: Research and User Analysis

- Conduct user surveys to understand features travelers expect (e.g., itinerary planning, live notifications).
- Create user personas (solo traveler, family, adventure seeker).

Step 3: Create a Wireframe

- Design basic layouts for pages like:
 - Home Dashboard (featured destinations, recommendations)
 - Itinerary Planner Page
 - Booking Management
 - Notifications
 - Travel Tips

Step 4: Design the UI in Figma

- Create high-fidelity screens using Figma.
- Include components like buttons, icons, search bars, and progress indicators.
- Use consistent travel-centric color schemes (e.g., sky blue for calm, coral orange for highlights).

Step 5: Add Interactions (Prototype Mode)

- Link pages using Figma's "Prototype" feature.
- Define navigation flows — e.g., *Home* → *Destination Details* → *Itinerary Planner* → *Booking Confirmation*.

Step 6: Test the Prototype

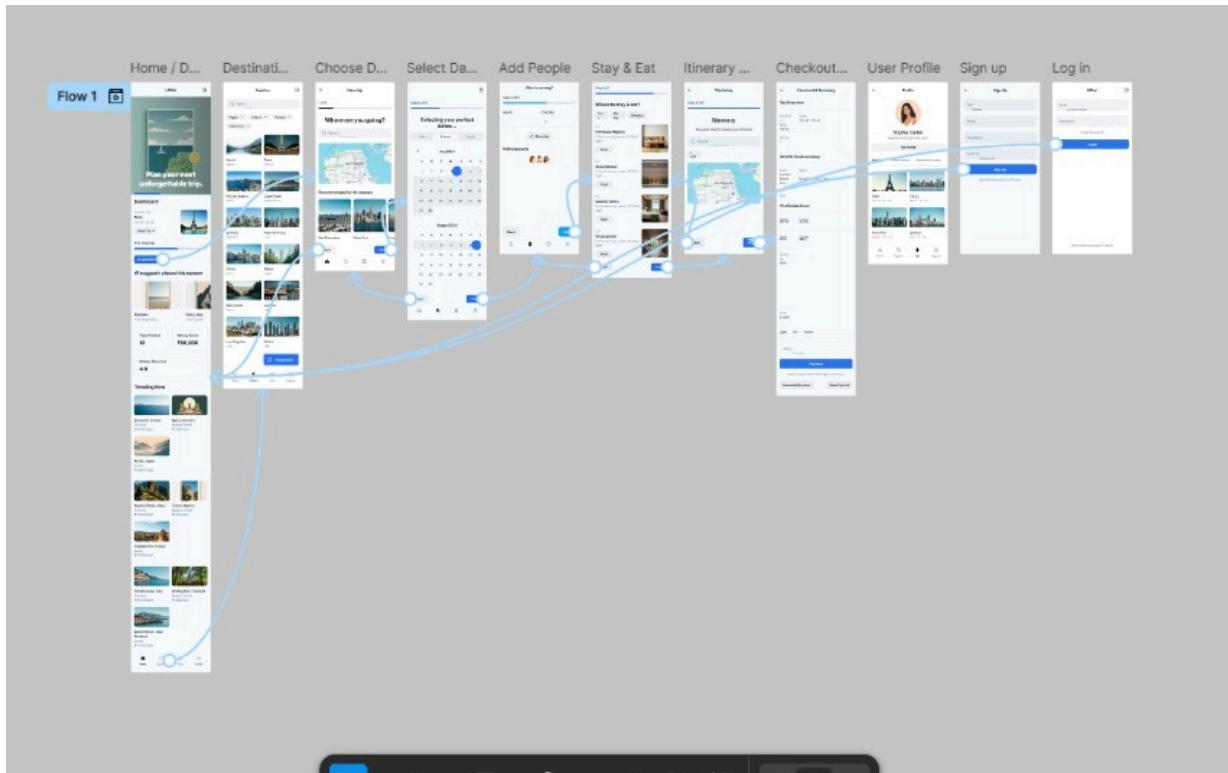
- Preview prototype in Figma's presentation mode.
- Gather user feedback on usability, intuitiveness, and visual design.

Step 7: Refine and Finalize

- Iterate based on feedback, improving navigation, calls to action, and loading times.
- Save and export the final prototype for presentation or submission.

IMPLEMENTATION:

Prototype for Travel technology:



RESULT:

The prototype successfully demonstrates how travel processes can be simplified and visualized using modern UI/UX design tools, improving efficiency and user satisfaction