



Project-Based Learning

Title of Project: Travel Planning Application: Design a travel planning app that helps users research destinations, plan itineraries, and book accommodations with a focus on ease of use and visual appeal.

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CHAPTER 1

Introduction

1.1 Brief Overview of the Project

This travel app allows users to plan trips by selecting destinations, preferred modes of transport (aeroplane, bus, or train), and suitable hotels. It also features a smart chatbot that helps users generate a complete travel plan based on their budget and preferences, making trip planning quick and personalised.

1.2 Objective

- 1. Seamless experience:** Offer a smooth and hassle-free trip planning process.
- 2. User-friendly platform:** Ensure easy navigation and accessibility for all users.
- 3. Simplified trip planning:** Make planning quick and efficient with minimal effort.
- 4. Personalized recommendations:** Tailor suggestions based on individual user preferences.
- 5. Budget-based suggestions:** Provide travel, accommodation, and sightseeing options that fit the user's budget.

1.3 Importance of UX in a Travel App

Good UX is crucial in travel apps as users rely on clear, intuitive navigation to make quick and informed decisions. A well-designed UX ensures smoother planning, reduces frustration, and builds trust, especially when handling bookings, budgets, and personalised recommendations.

CHAPTER 2

UX Research Report

2.1 Research Methods

To understand user behaviour and pain points in travel planning, we used:

- **Surveys:** Collected data from 30+ users via Google Forms to identify travel app usage habits.
- **Interviews:** Conducted 5 in-depth interviews with college students, working professionals, and families.
- **Competitive Analysis:** Studied MakeMyTrip, EaseMyTrip, and Goibibo to identify gaps and strengths in current travel app experiences.

2.2 Survey Results & Interviews

Survey Insights

- **Common Travel Challenges:**
 - Difficulty finding budget-friendly options.
 - Frustrating booking flows with too many steps.
 - No suggestions based on personal preferences.
- **Preferred Features:**
 - Smart assistant to suggest travel plans.
 - Transparent pricing and easy cost comparisons.
 - In-app booking for flights, hotels, and experiences.

Functional Requirements

These are the core features that the app must include to fulfill user needs:

- **Search Functionality:** For destinations, flights, hotels, and experiences.
- **Booking Module:** To allow users to book transport and accommodation within the app.
- **Smart Chatbot:** For generating travel plans based on user inputs like budget, interests, and dates.
- **Custom Itinerary Creation:** Users should be able to create and modify travel plans.
- **Wishlist/Favorites:** To save destinations or hotels for later.
- **Itinerary Sharing:** To allow users to share plans with friends or family.
- **Trip Overview Screen:** Shows all booked details, including costs and timing.

Non-Functional Requirements

These ensure quality performance, usability, and reliability of the app:

- **User-Friendly Interface:** Intuitive design with minimal steps to complete tasks.
- **Responsiveness:** The app should work smoothly across devices and screen sizes.
- **Performance:** Fast loading time, especially during search and booking.
- **Security:** Safe handling of user data and payment information.
- **Scalability:** Ability to handle increasing users and data over time.
- **Accessibility:** Easy for users of all tech levels, with simple language and navigation.
- **Localization:** Support for multiple currencies and languages (if needed).

2.3 User Personas

Persona 1: Aarav Mehta – The Spontaneous Student

- **Age:** 20
 - **Occupation:** B.Tech Student
 - **Location:** Pune
 - **Tech Savviness:** High
 - **Income:** ₹7,000/month (allowance + part-time work)
 - **Goals:**
 - Find weekend trips under ₹3,000.
 - Book transport and hotels quickly.
 - **Behaviors:**
 - Uses mobile for all travel research and bookings.
 - Look for deals and combos on travel apps.
 - **Pain Points:**
 - Takes too long to plan.
 - Transport and hotel options are not shown together.
 - **Motivations:**
 - Spontaneous getaways.
 - Easy planning with minimal input.
-

Persona 2: Riya Kapoor - The Busy Professional

- **Age:** 29
 - **Occupation:** IT Consultant
 - **Location:** Bangalore
 - **Tech Savviness:** Medium
 - **Income:** ₹80,000/month
 - **Goals:**
 - Plan long vacations.
 - Choose experiences based on ratings and comfort.
 - **Behaviors:**
 - Check reviews carefully.
 - Compare across apps before booking.
 - **Pain Points:**
 - Too many unnecessary features.
 - Hidden fees during checkout.
 - **Motivations:**
 - Hassle-free, well-organised trips.
 - Accurate info and smooth UI.
-

Persona 3: Mr. Suresh Nair - The Family Man

- **Age:** 45
- **Occupation:** Bank Manager
- **Location:** Kochi
- **Tech Savviness:** Low
- **Income:** ₹1,20,000/month
- **Goals:**
 - Book safe, family-friendly travel.
 - Stick to a predefined budget.
- **Behaviors:**
 - Prefers simple interfaces.
 - Relies on family for tech help.
- **Pain Points:**
 - Confused by too many icons.
 - Frustrated with long loading times.
- **Motivations:**
 - Safety, comfort, and clarity.

2.4 Journey Maps

Persona 1: Aarav Mehta - Student

Scenario: Aarav wants to plan a weekend getaway with his college friends under ₹3,000.

1. Goal: Find and book an affordable weekend trip quickly.

2. Actions:

- Opens the app → Clicks on “Weekend Getaways” section.
- Enter the budget and number of people.
- Selects transport and hotel combo → Proceeds to payment.

3. Pain Points:

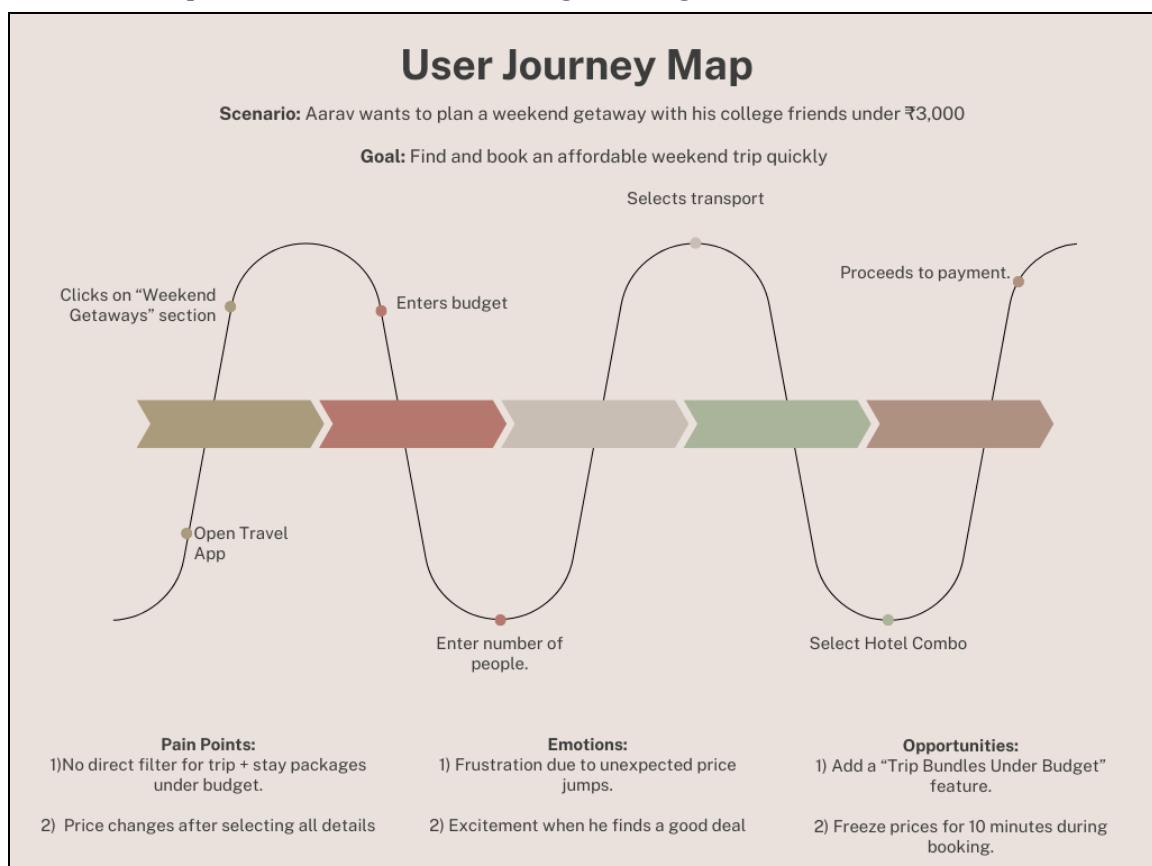
- No direct filter for trip + stay packages under budget.
- Price changes after selecting all details.

4. Emotions:

- Frustration due to unexpected price jumps.
- Excitement when he finds a good deal.

5. Opportunities:

- Add a “Trip Bundles Under Budget” feature.
- Freeze prices for 10 minutes during booking.



Persona 2: Riya Kapoor – Working Professional

Scenario: Riya is planning a 5-day solo trip and wants everything well organised.

1. Goal: Customise a complete trip with reliable hotel and transport options.

2. Actions:

- Opens app → Enters destination and dates.
- Compares hotels → Adds sightseeing and flights.
- Tries to view full itinerary → Proceeds to book.

3. Pain Points:

- Itinerary not shown before final payment.
- Needs to re-enter details multiple times.

4. Emotions:

- Annoyance due to repetition.
- Confidence when she sees reviews and ratings.

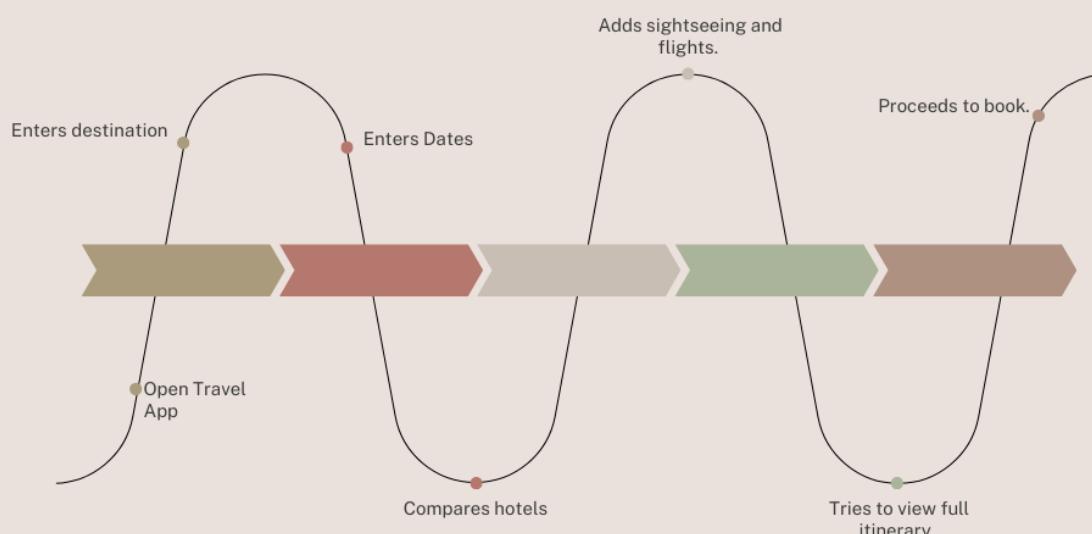
5. Opportunities:

- Add a visual itinerary builder.
- Auto-fill user data across all booking steps.

User Journey Map

Scenario: Riya is planning a 5-day solo trip and wants everything well organized.

Goal: Customize a complete trip with reliable hotel and transport options.



Pain Points:

- 1) Itinerary not shown before final payment.

- 2) Needs to re-enter details multiple times.

Emotions:

- 1) Annoyance due to repetition.

- 2) Confidence when she sees reviews and ratings.

Opportunities:

- 1) Add a visual itinerary builder.

- 2) Auto-fill user data across all booking steps.

Persona 3: Suresh Nair - Family Man

Scenario: Suresh is planning a family vacation,, hotel and train.

- Tries to confirm and pay.

And wants everything to be simple and safe.

1. **Goal:** Book a complete family trip with transparent pricing and no confusion.

2. **Actions:**

- Opens the app → Selects “Family Packages.”
- Enters family members' details → Selects

3. **Pain Points:**

- Difficulty navigating tabs with too many icons.
- No clarity on what's included in the package.

4. **Emotions:**

- Anxiety about missing something.
- Satisfaction after seeing the booking confirmation.

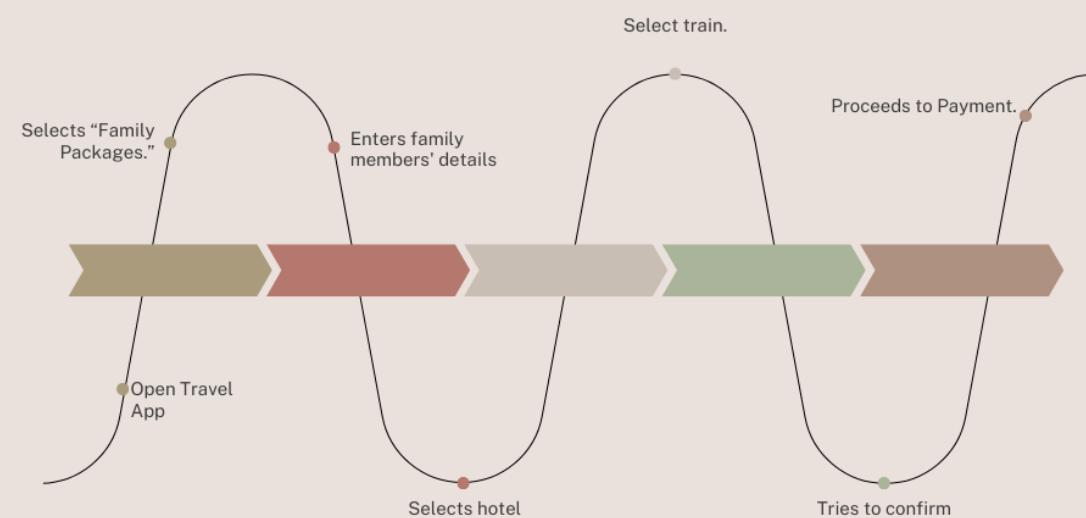
5. **Opportunities:**

- Add labelled icons and simplified UI for older users.
- Include a “What's Included” summary before payment.

User Journey Map

Scenario: Suresh is planning a family vacation and wants everything to be simple and safe.

Goal: Book a complete family trip with transparent pricing and no confusion.



Pain Points:

- 1) Difficulty navigating tabs with too many icons.
- 2) No clarity on what's included in the package.

Emotions:

- 1) Anxiety about missing something.
- 2) Satisfaction after seeing booking confirmation.

Opportunities:

- 1) Add labeled icons and simplified UI for older users.
- 2) Include “What's Included” summary before payment.

CHAPTER 3

UX Audit Document

3.1 Heuristic Evaluation of Existing Travel Apps

1. Visibility of System Status

The app shows real-time feedback during chatbot interactions, searches, and bookings (e.g., loading spinners, progress bars, or confirmation messages).

Budget suggestions and itinerary updates are displayed immediately after user input.

2. Match Between the System and the Real World

Uses familiar travel-related terms like “budget,” “itinerary,” “stay,” “transport,” and “places to visit.”

The chatbot communicates in natural, conversational language to match real-world user expectations.

3. User Control and Freedom

Users can easily go back to change their budget, destination, or travel preferences at any step.

Undo and redo options are available while editing trip plans or modifying itineraries.

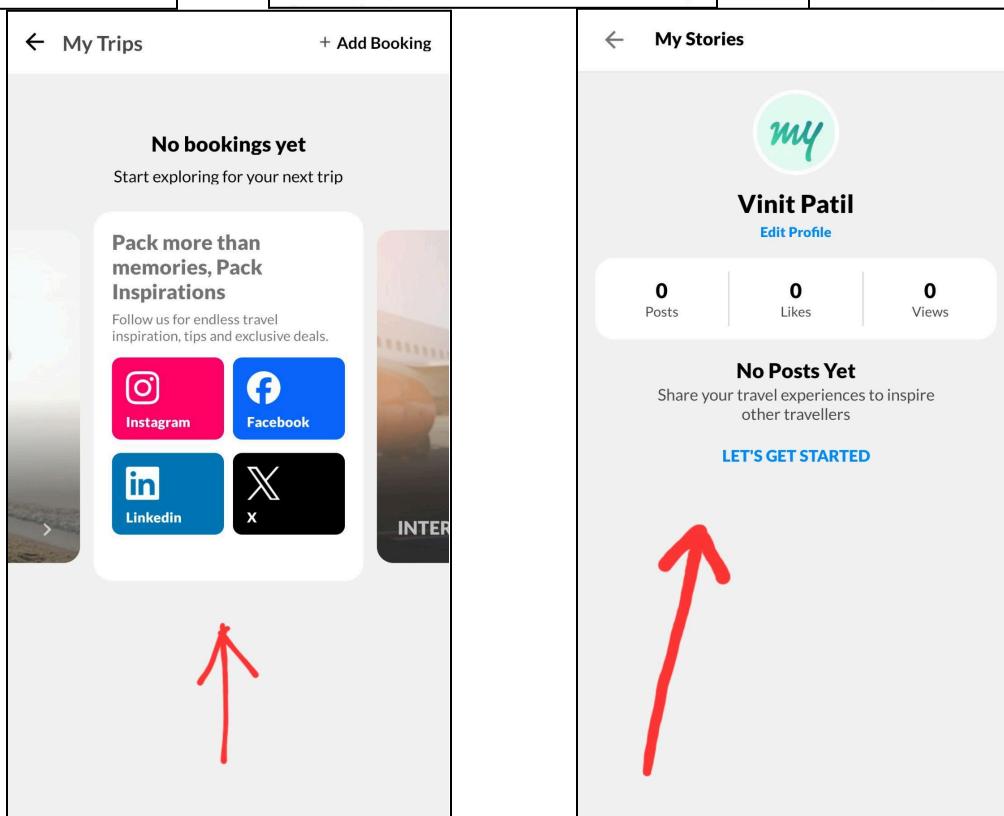
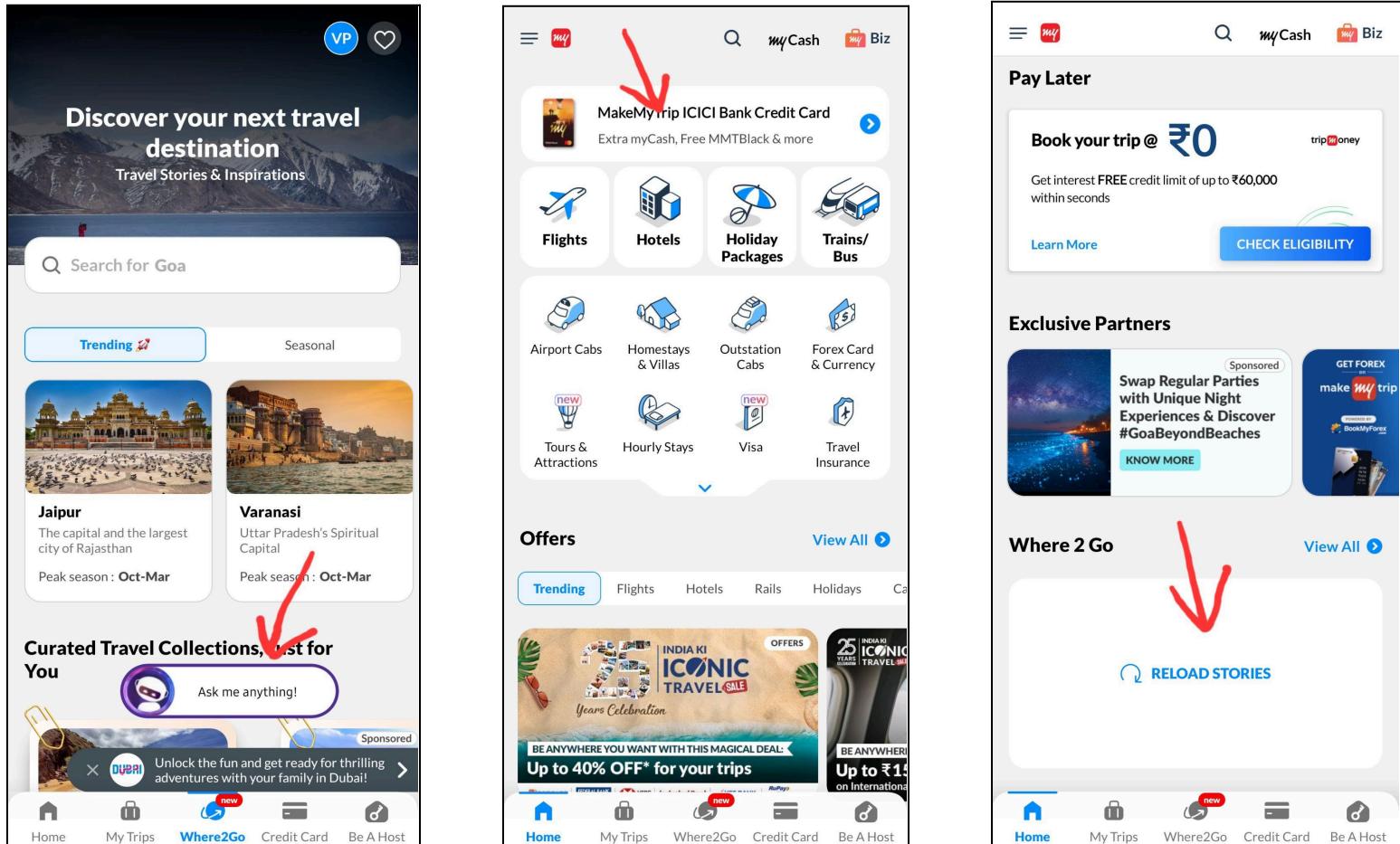
4. Consistency and Standards

Icons, buttons, and navigation patterns follow common app design standards (e.g., hamburger menu, calendar picker, hotel filters).

The UI maintains consistent layouts for transport, hotel, and destination listings.

Usability Issues in Popular Travel Apps

Cluttered Interface – Example: MakeMyTrip



3.2 Key UX Issues Identified

1. Complex User Flow

Issue: Users may find it difficult to follow a clear, logical journey when planning a trip due to a fragmented process (e.g., switching between multiple sections for transport, hotels, and activities).

Impact: This leads to confusion and wasted time as users struggle to find what they need quickly.

2. Overwhelming Information

Issue: Too many filters, details, and options shown at once.

Impact: Leads to user fatigue and possible abandonment.

3. Inconsistent Design and Navigation

Issue: inconsistencies in the design elements (like button styles, icons, and menu layout) can create confusion, particularly when switching between different sections (transport, hotels, activities).

Impact: This can disrupt the user experience, making it harder for users to intuitively navigate the app and complete tasks without mistakes.

4. Lack of Personalization

Issue: Doesn't adapt to user preferences, history, or budget.

Impact: Users must manually filter everything, wasting time.

5. Poor Error Handling

Issue: Error messages are often vague (e.g., "Something went wrong") or do not provide enough guidance on how to resolve the issue.

Impact: Leaves users stuck or abandoning the app.

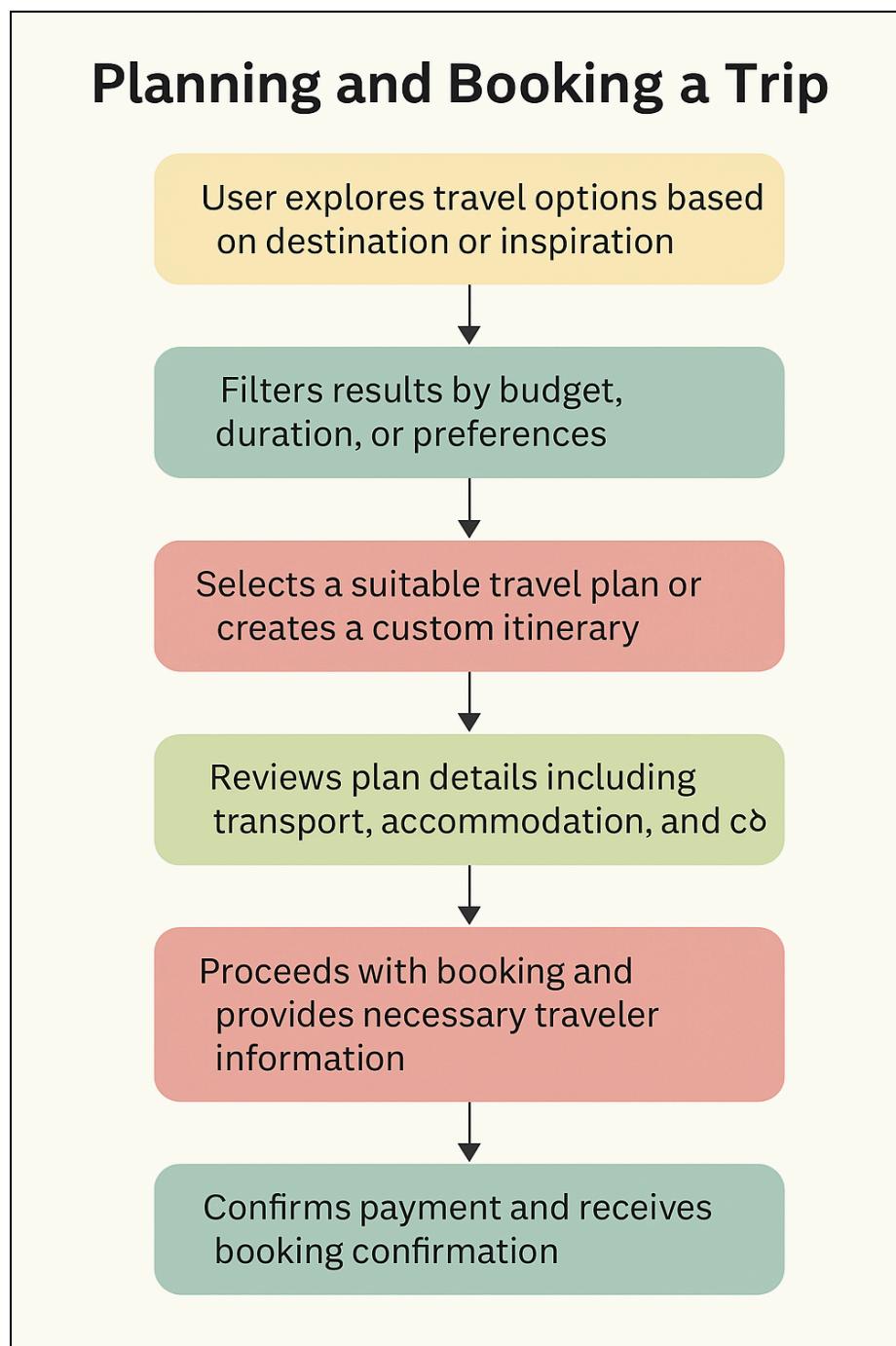
Chapter 4

Task Flows & Sitemap

4.1 Task Flows

Below are three generalized task flows that outline how users typically interact with key features of the app.

Task Flow 1: Booking a Travel Package



Task Flow 2: Generating Travel Plan

Generating a Personalized Travel Plan Using Chatbot

User initiates a conversation with the travel assistant

Shares travel budget, interests, and dates

Receives suggested travel plans tailored to user preferences

Edits or customizes the generated itinerary if needed

Confirms the plan and initiates the booking process

Completes the booking and stores itinerary in user profile

Task Flow 3: Managing and Sharing Itinerary

Managing and Sharing Itinerary

User accesses existing trip information from the profile or dashboard



Reviews travel details including bookings, timings, and locations



Makes changes if necessary (e.g., cancellations, updates)



Shares the itinerary with companions or contacts via preferred platforms

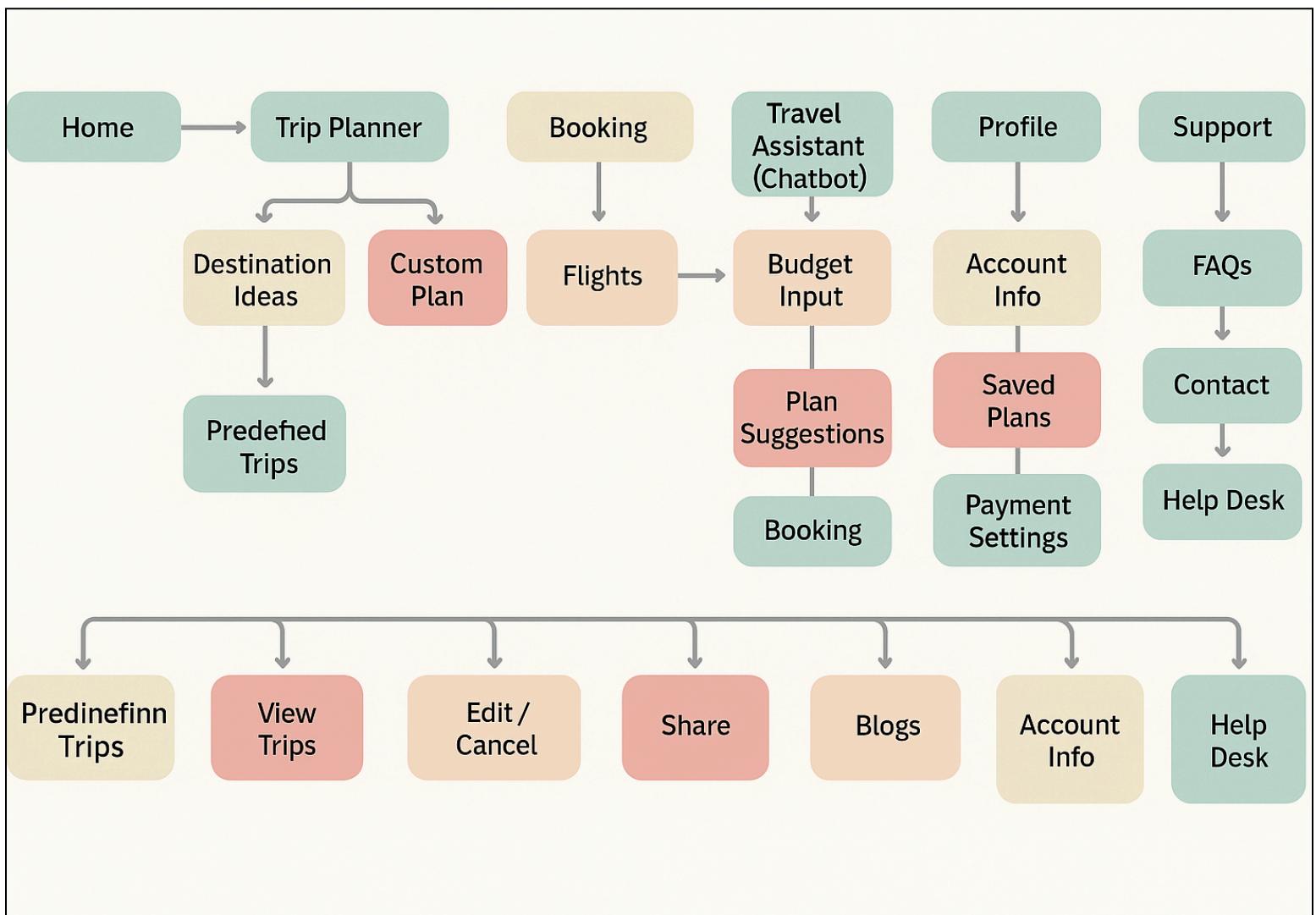


Uses itinerary during travel for navigation and reminders

4.2 Sitemap

The sitemap outlines the structure and hierarchy of the app's pages and navigation.

Sitemap Diagram:



Chapter 5

Wireframes & Interactive Prototype (Figma)

5.1 Low-Fidelity Wireframes

Beaches Mountains Cities Historical

Destination Name

Location

★ Rating: 4,5

Destination Name

Location

★ Rating: 4,5

Destination Name

Location

★ Rating: 4,5

Destination Name

Location

Destination Image

France ➔ 4.7 ☀ 22°C

Description

Description about the destination...
Description about the destination...
Description about the destination...

Things to Do

Attraction Image Eiffel Tower
Iconic Landmark

Plan My Trip

Destination
Paris

Dates

June 10, 2024 June 17, 2024

Itinerary

Notes

Continue

Destination
Paris

Dates

From To

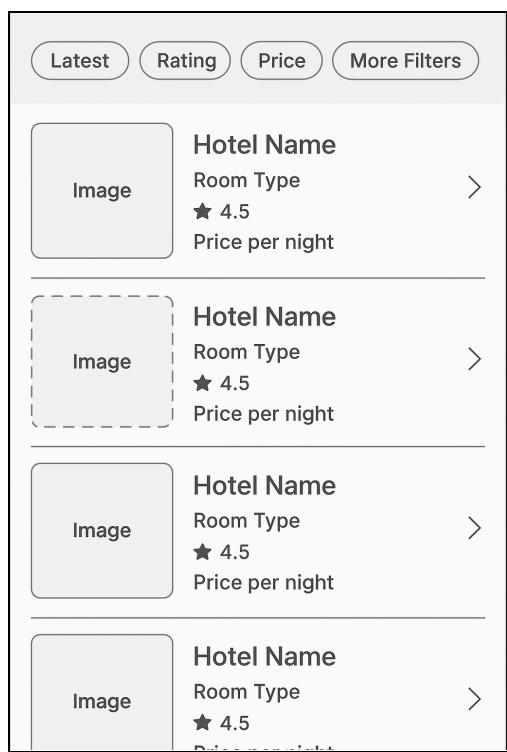
Travelers

Number of Travelers

Budget

Enter Amount

Search Trips



Select Flights

New York to Paris

Sat 8	Sun 9	Mon 10	Tue 11	Wed 12	Fri 14

8:00 AM – 9:30 PM Nonstop 9h 30m \$ 450

8:00 AM – 9:30 PM Nonstop 9h 30m \$ 450

8:00 AM – 9:30 PM Nonstop 9h 30m \$ 450

Continue

Travel APP

Search

Popular Destinations

- IMAGE Place Place
- IMAGE Place Place

Categories

- Category Category Category

Plan My Trip

Low Fidelity Link

<https://www.figma.com/design/uIBvapGRuRCVgBbNBmYYbM/low-fidelity-wireframe?node-id=0-1&t=SOCFr6s4Hc06Qeut-1>

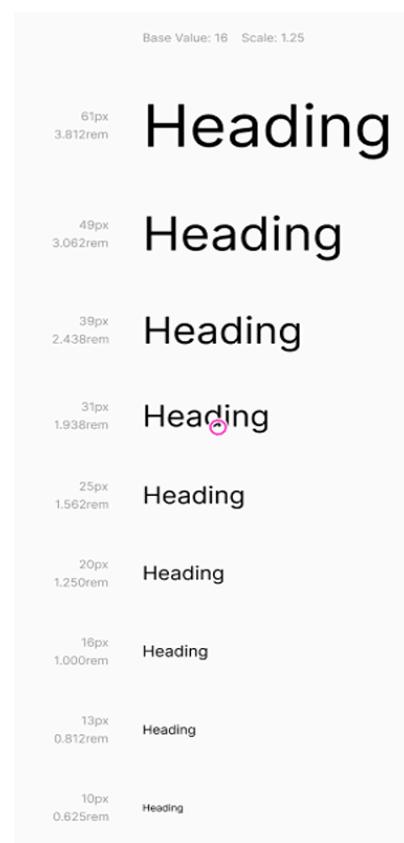
5.2 High-Fidelity Prototype

<https://www.figma.com/design/HHMpraLOzvyhftxucpaPN/Untitled?node-id=0-1&t=rEKUDTYURQiRsd06-1>

Chapter 6

Style Guide (UI Components, Typography, Colour Scheme)

- **Typography** (Primary & secondary fonts).

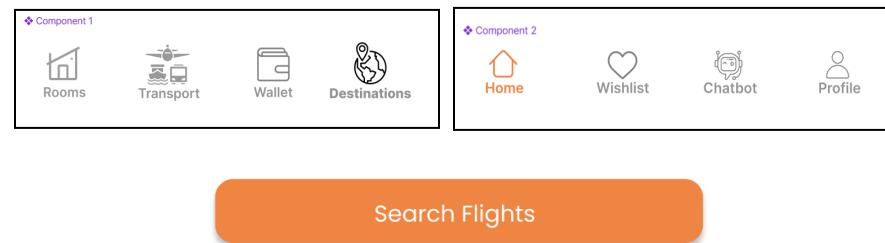


Colour Palette

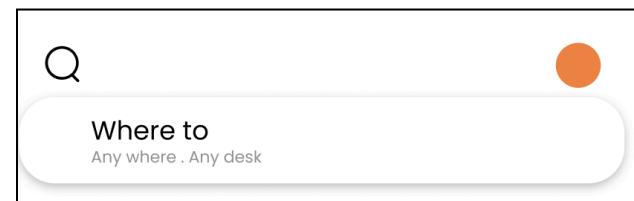
0 #FFFFFF	0 #FFFFFF
0.5 #E6F4FF	0.5 #FFEEF6
1 #CCEAFF	1 #FFDFCC
1.5 #B3DFFF	1.5 #FFCFB3
2 #99D5FF	2 #FFBF99
3 #66BFFF	3 #FF9E66
4 #33AAFF	4 #FF7E33
5 #0095FF	5 #FF5E00
6 #0077CC	6 #CC4B00
7 #005999	7 #993800
8 #003C66	8 #662600
8.5 #002D4D	8.5 #4D1C00
9 #001E33	9 #331300
9.5 #000F1A	9.5 #1A0900
10 #000000	10 #000000

UI Components

Nav Bar



Search Bar



Forms

User 1

xxxxxxxxxxxxxx@gmail.com

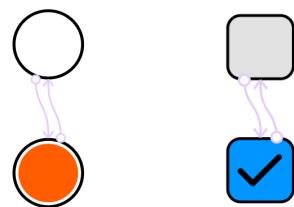
Password must be 8 character

Sign Up

This is a food ordering place



CheckBox and Radio Button



Chapter 7

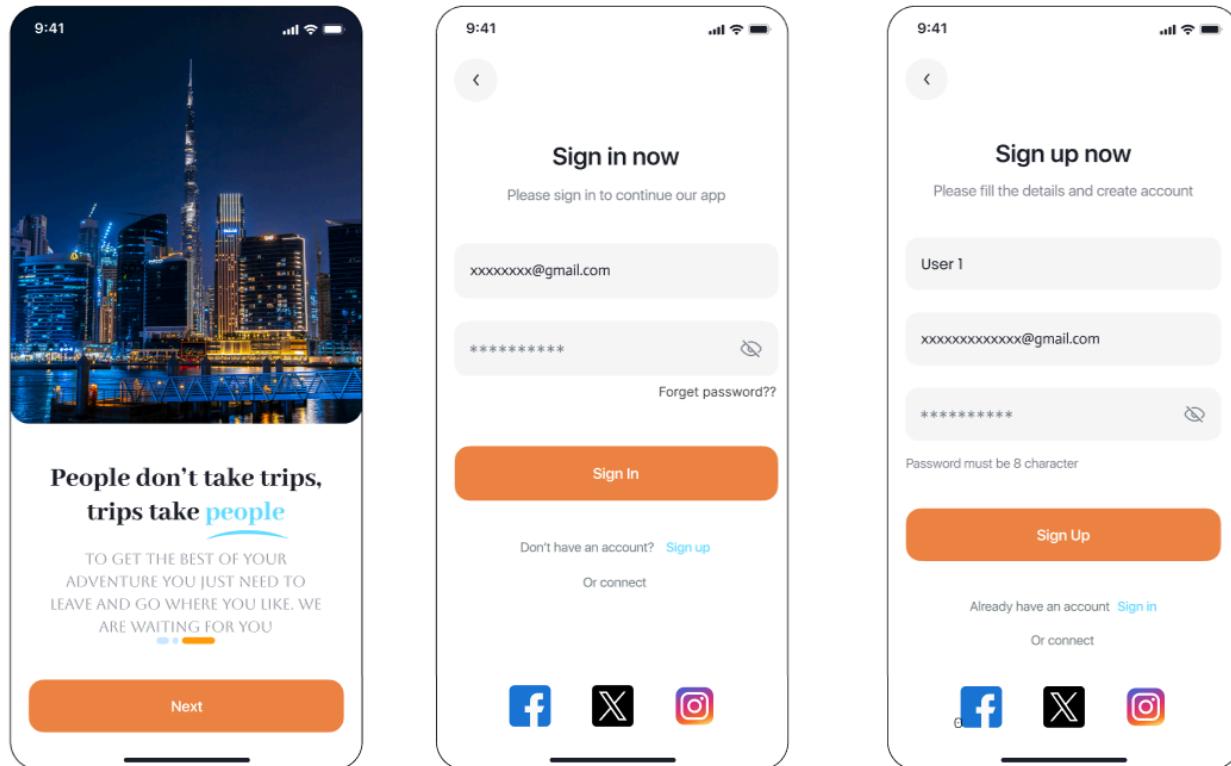
Findings, Designs & Improvements

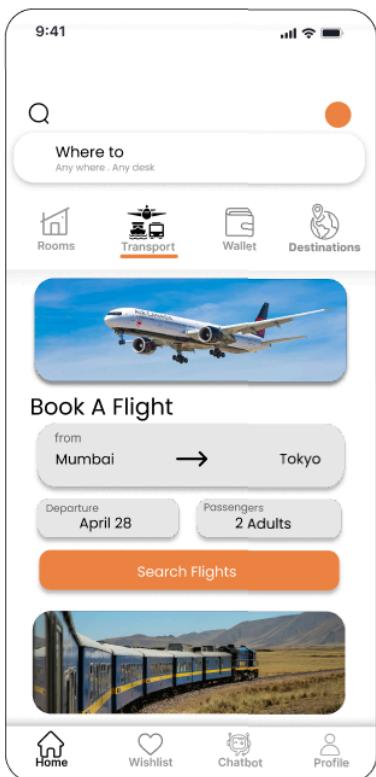
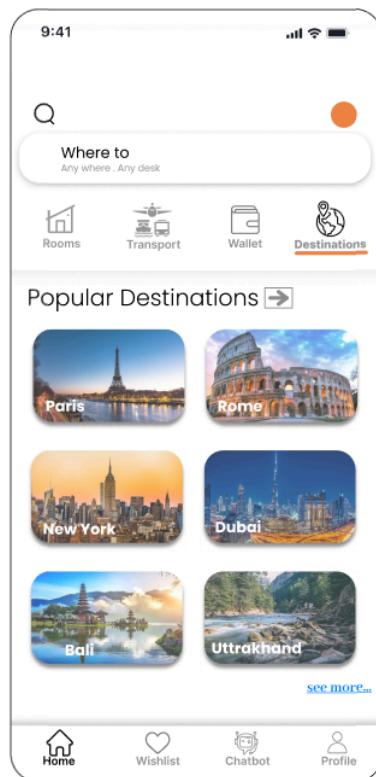
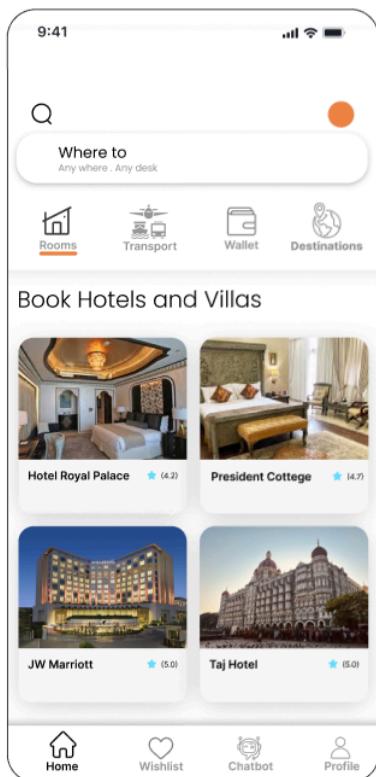
7.1 Key Research Insights

Based on our UX research methods, including surveys, interviews, and competitor analysis, the following key insights were identified:

- **Users want personalisation:** Most users expressed interest in a system that recommends plans based on budget, travel style, and duration.
- **Simplicity is key:** Users preferred clean layouts, minimal steps during booking, and clarity in pricing.
- **Smart assistance adds value:** A chatbot or assistant feature significantly improves user engagement and decision-making speed.
- **Trust and transparency:** Visible cost breakdowns and upfront information build trust, especially in bookings involving payments.

7.2 Final Design Showcase





9:41

Select Flights

Mumbai to Tokyo

Sun 28	Mon 29	Tue 30	Wed 1	Thu 2	Fri 3
	8:35 AM to 9:00 PM Non-stop \$435		6:00 AM to 7:30 PM Non-stop \$475		3:00 AM to 1:30 PM Non-stop \$850
	Select		Select		Select

9:41

Latest Ratings More Filters

	J.W. Marriot Room Type > 4.5★ \$450/Night	Select
	Taj Hotel Room Type > 4.3★ \$300/Night	Select
	President Cottage Room Type > 4.2★ \$250/Night	Select

9:41

Review Trip

Flight Departure 8:35 AM
Arrive 6:00 PM
28 April to 3 May

Hotel J.W. Marriot
6 Nights and 5 Days
28 April to 3 May

Cost Breakdown

Flight	\$670
Hotel	\$2700
TOTAL	\$3370

Continue

9:41

Select Payment Method

Credit Card
 Debit Card
 UPI
 Net Banking

Cost Breakdown

Flight	\$670
Hotel	\$2700
Discount	-\$674
TOTAL	\$2696

Proceed to Pay

9:41

Congratulations!
Trip has been booked.

View Itinerary
Download Invoice
Finish

9:41

Hi! I'm TravelMate. Tell me your budget and destination, and I'll help plan your trip!

I want to visit Tokyo and my budget is \$8000

Transportation:
Take a Volvo or AC bus from Delhi or Chandigarh, or a train to Chandigarh followed by a bus to Manali.

Accommodation:
Stay in budget hotels or hostels (\$500-\$1000 per night). Homestays and dorms are also good affordable choices.

Places to Visit in Manali:
Hidimba Devi Temple, Solang Valley, Mall Road, Vashish Hot Springs, Old Manali.

7.3 Future Improvements

To enhance the app in the next iteration, the following improvements are proposed:

- **Social Trip Planning:** Enable collaborative trip planning with friends/family in real time.
- **Voice-Based Assistant:** Upgrade the chatbot with voice interaction for better accessibility.
- **Local Experience Integration:** Include local experiences like food tours or events, integrated with the plan.
- **More Filter Options:** Add filters like “Kid-friendly,” “Pet-friendly,” “Adventure,” and “Relaxation.”

Links

GItHub:- <https://github.com/Vinit1936/TravelApp>

Figma:-

<https://www.figma.com/design/HHMpraLOzvyhftfxucpaPN/Untitled?node-id=0-1&p=f&t=BMhuzmlr3m4uKNjW-0>

Video:- <https://youtu.be/jBUzSukQfXw>