**DESIGN THINKING AND INNOVATION**

**Week 2**

**Team 23:** ZENOURA

**Team Members:**

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**Progress of Week 2:**

1. **Project Idea – Finalized – Detailed Explanation of Key Highlights:**

**ExploreEase – Smart Travel Companion**

**Upscaling Travel Planning with AI-Powered Suggestions**

1. **Core Problem – Defined and Addressed:**

Multiple travellers are unable to efficiently plan trips, keep track of budgets, and communicate with group members. ExploreEase came into existence to make traveling easy by bringing AI-powered suggestions, budget route planning, and smooth communication capabilities together. Such a super app helps users enjoy personalized and trouble-free travel experiences.

This is our general idea and we’ll investigate further for improvements.

1. **Research Papers – Collected and Analyzed:**

We have collected and analyzed 15 relevant research papers for this project.

1. **User Stories – Gathered:**

* Collected user stories from the people and noted their requirements.
* Segregated their requirements into functional and non-functional requirements.

**User stories:**

1. **Personalized Travel Recommendations**
   * **Card:** *As a traveller, I want the app to suggest destinations based on shared interests, so that my group can explore places everyone enjoys.*
   * **Conversation:** The app prioritizes destinations based on group preferences and past trips.
   * **Confirmation:** Users confirm or modify the suggested destinations before finalizing.
2. **Flexible Route Selection**
   * **Card:** *As a user, I want to choose routes based on cost, time, or scenic value, so that my trip aligns with my preferences.*
   * **Conversation:** The app provides route options with cost, duration, and attractions.
   * **Confirmation:** The user confirms their preferred route, and the itinerary is updated.
3. **Fair Trip Cancellation & Expense Management**
   * **Card:** *As a trip organizer, I want a fair refund system for departing members, so that trip expenses are managed equitably.*
   * **Conversation:** A poll determines if a refund is due, and expenses are adjusted accordingly.
   * **Confirmation:** Users are notified of the refund decision, and expenses are updated.

**Requirements:**

**Functional Requirements (FR)**

* Multi-mode Booking – Cabs, hotels, flights, and trains.
* AI Recommendations – Personalized travel suggestions.
* Route Selection – Cost, time, or attraction-based.
* Trip Cancellation – Poll-based refund system.
* Expense Tracker – Shared cost management.

**Non-Functional Requirements (NFR)**

* Fast Processing – Booking & AI in ≤ 3s.
* Scalability – 100,000+ concurrent users.
* Secure Transactions – PCI-DSS compliance.
* Private Communication – End-to-end encrypted chat.
* High Availability – 99.9% uptime.

1. **Tech Stack – Finalized:**

The Tech Stack for our project is finalized. DIARY app needs the following tech stack:

* **Frontend:** React Native (User interface)
* **Backend:** Node.js (API & logic)
* **Maps:** OpenStreetMap (Route planning)
* **Attractions API:** Google Places API (Places suggestions)
* **AI/ML:** Advanced algorithms (Personalized trip planning)
* **Databases:**
  + PostgreSQL (Users, routes, payments, trips)
  + MongoDB (Chat, real-time analysis)
  + Neo4j (Maps, location data, relationships)

**What’s Next?**

* **Empathy Map:** Understand user emotions
* **Persona:** Define user characteristics
* **Journey Map:** Visualize user experience