



RAJA BALWANT SINGH ENGINEERING AND TECHNICAL CAMPUS

Mini Project

AI Powered Trip Planner Website

Abstract Presentation

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Introduction



AI Powered Trip Planner Website

Planning a trip can be time-consuming, with challenges like managing itineraries, transportation, accommodation, and group coordination. The AI-Powered Trip Planner makes this process simple by creating personalized itineraries based on destination, budget, duration, and interests. Along with AI-driven packing tips, local recommendations, and seamless booking options, the platform also supports group collaboration through chatrooms and mood boards—ensuring a smarter, stress-free, and enjoyable travel experience.

Objectives:

- Automate trip planning with AI-generated personalized itineraries.
- Provide smart packing suggestions and local recommendations.
- Integrate bookings for flights, hotels, and transport.
- Enable collaborative trip planning through group chatrooms.
- Enhance travel experience with mood boards and inspirations.



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Problem Statement



Problem Statement

“Planning a trip often feels harder than taking the trip itself.”

- ❑ **Manual trip planning is tedious** → requires hours of research, comparisons, and coordination
- ❑ **Travelers face multiple challenges**, including:
 - ❑ **Managing logistics** → itineraries, transportation, and accommodation bookings
 - ❑ **Budget management** → ensuring all expenses fit within financial limits
 - ❑ **Group coordination** → syncing schedules, preferences, and approvals among travelers
- ❑ **Current tools are fragmented** → travelers use separate apps for flights, hotels, cabs, and notes
- ❑ **No unified, intelligent solution** → results in wasted time, higher costs, and added stress



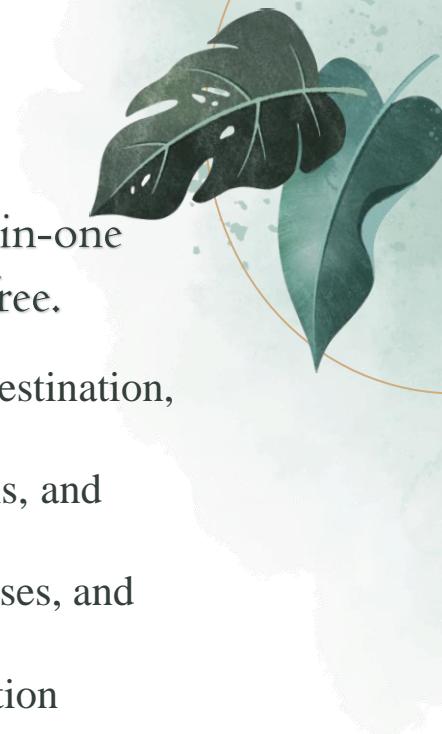
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Solution





Solution



Our AI-Powered Trip Planner Website provides an all-in-one solution that makes travel simple, smart, and stress-free.

- Customized Itineraries** – Automatically generated based on destination, duration, budget, and interests.
- Smart Recommendations** – AI-driven packing lists, attractions, and dining suggestions.
- Seamless Bookings** – Integrated platform for flights, trains, buses, and hotels.
- Collaborative Planning** – Group chatrooms for easy coordination among travelers.
- AI-Curated Mood Board** – Inspires users with visual travel ideas and suggestions.

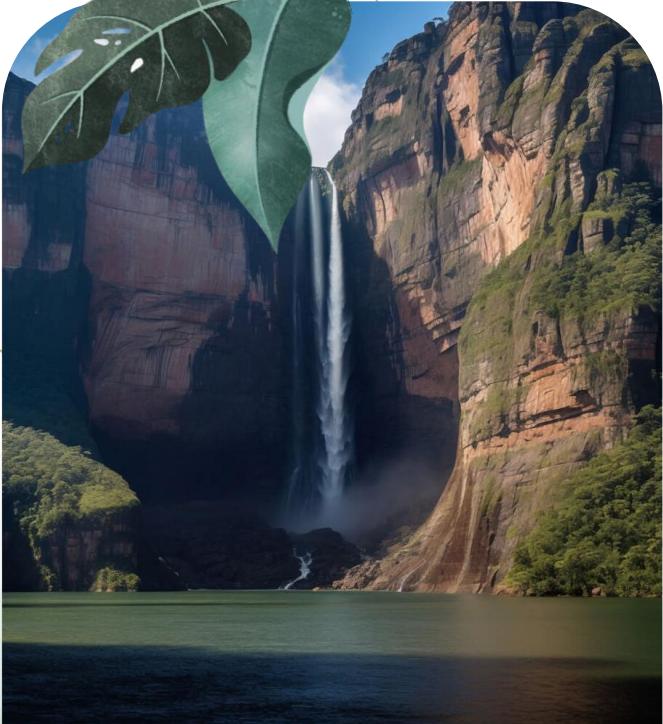


By combining AI intelligence with travel APIs, the platform delivers a personalized, time-saving, and user-friendly experience that enhances the overall journey.



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Literature Review



Existing Trip Planning Tools

- ❑ Platforms like *MakeMyTrip* and *TripAdvisor* provide booking and recommendations but lack AI-driven personalization.
- ❑ Users still juggle multiple apps for flights, hotels, and itineraries.

AI in Travel Applications

- ❑ Research shows AI enhances decision-making by analyzing large datasets (preferences, reviews, prices).
- ❑ Chatbots and recommendation systems improve user interaction but remain limited in scope.

Gap Identified

- ❑ Current solutions focus either on **bookings** or **recommendations**, not both.
- ❑ Lack of integrated group collaboration features (chatrooms, shared itineraries).

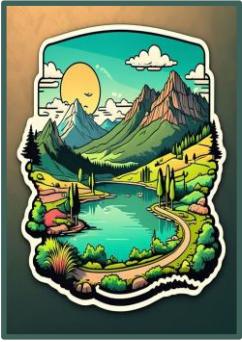
Proposed Contribution

- ❑ Our system combines **AI + APIs** for a unified platform.
- ❑ Delivers **personalized itineraries**, **seamless bookings**, and **collaborative planning tools**—filling the gap left by existing systems.



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Hardware & Software Requirements



Hardware:

- The project requires only a standard laptop or desktop with a stable internet connection for development and testing purposes.
(Recommended: 8 GB RAM, Intel i5 or higher processor, and at least 512 GB of storage for smooth performance.)

Software:

Frontend: React.js, CSS

Backend: Django

Database: PostgreSQL

APIs & Integrations

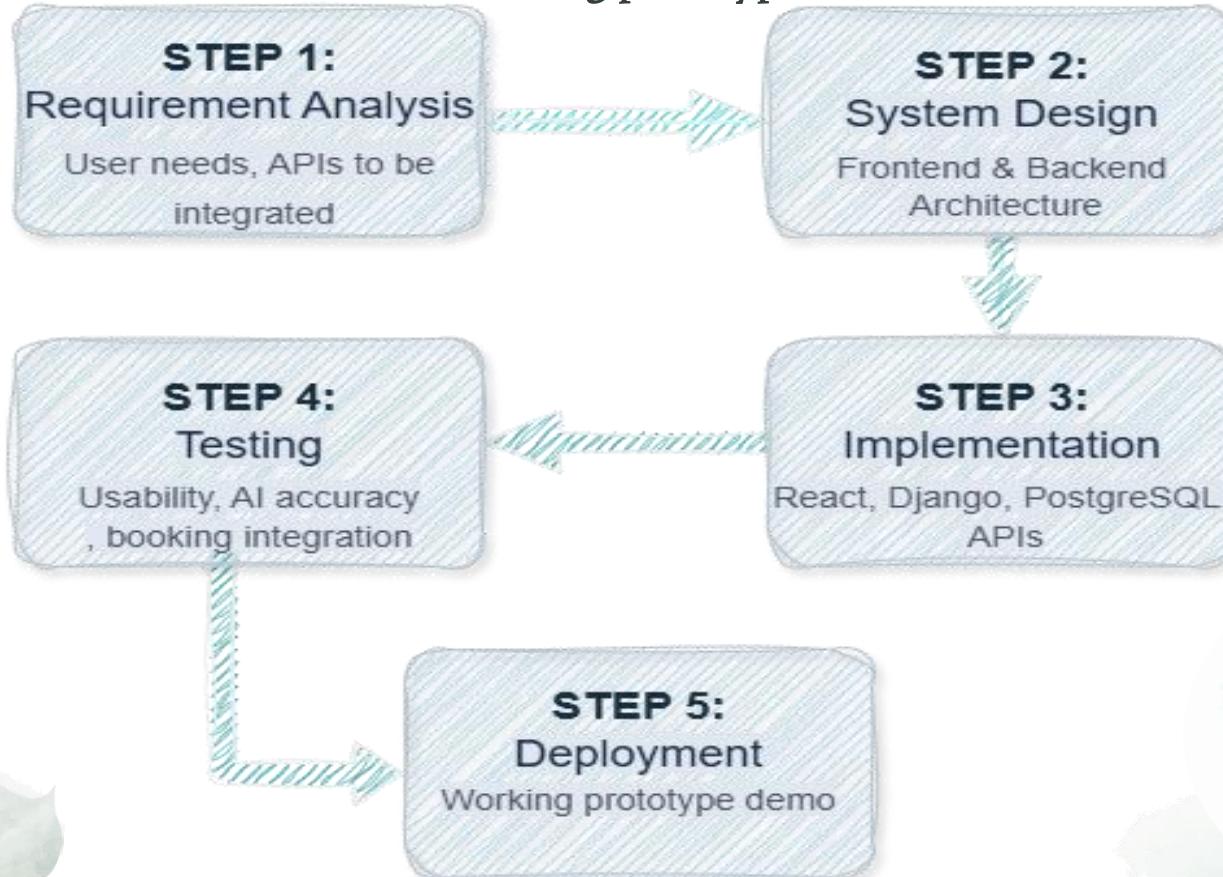
- OpenAI:** AI-powered itinerary generation and recommendations.
- Google Maps:** Location services, navigation, and distance calculations.
- Hotel/Flight/Train/Bus APIs:** Seamless booking and real-time availability updates.

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Methodology

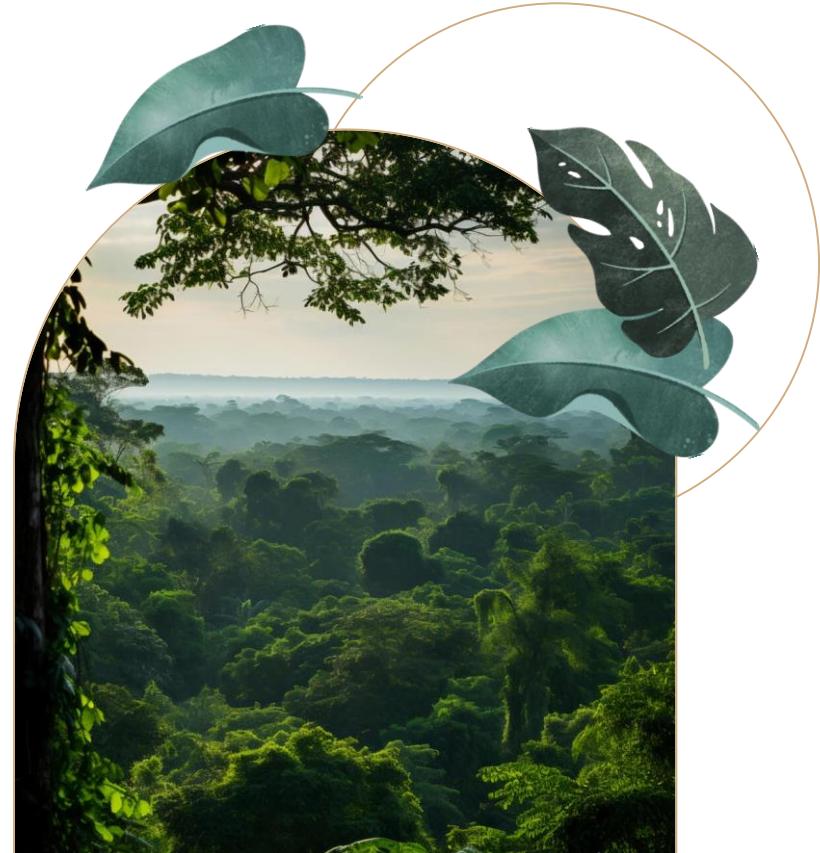


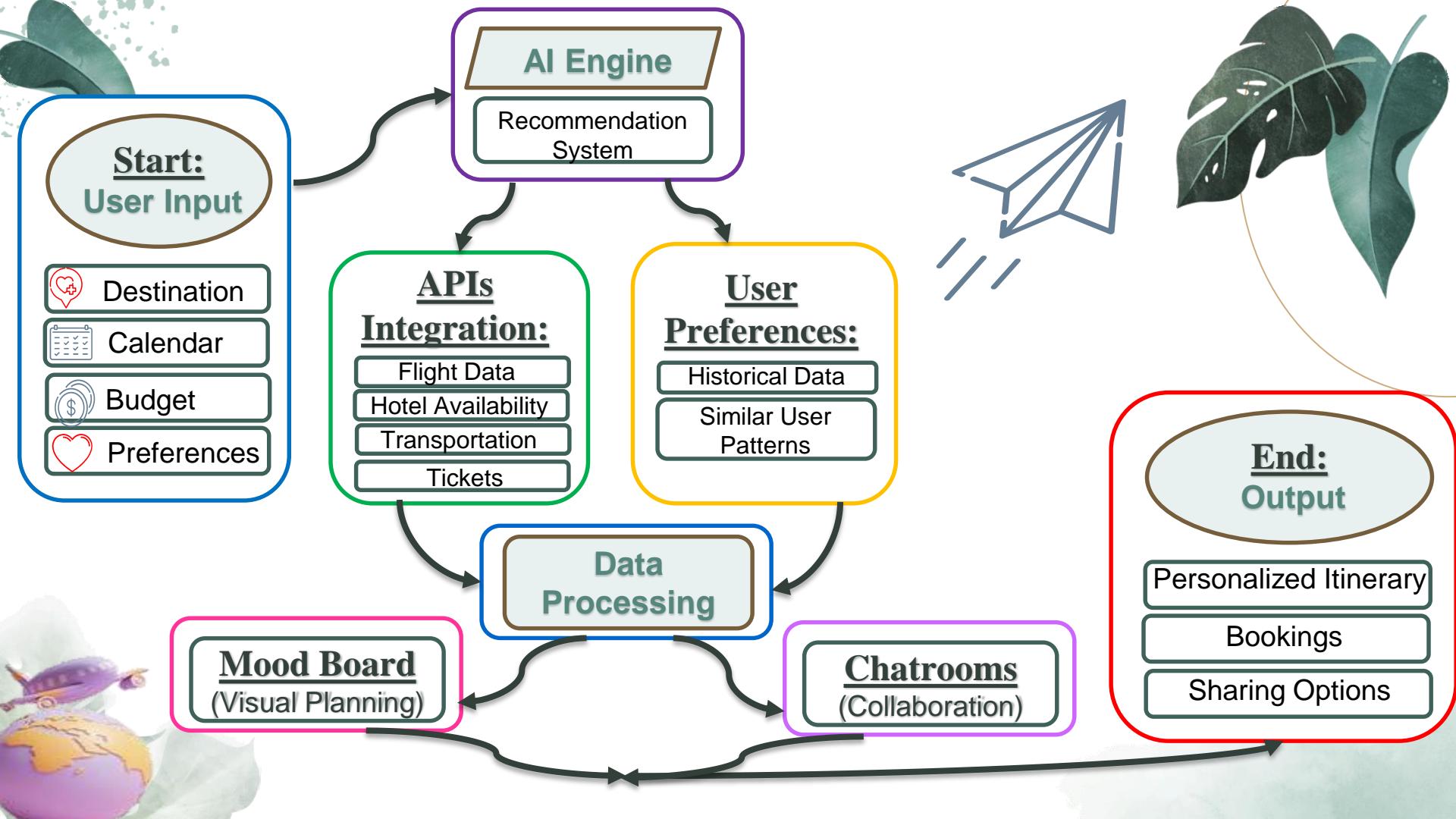
The process follows a clear path — from understanding needs, designing solutions, and building the system, to testing and finally deploying a working prototype



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Workflow

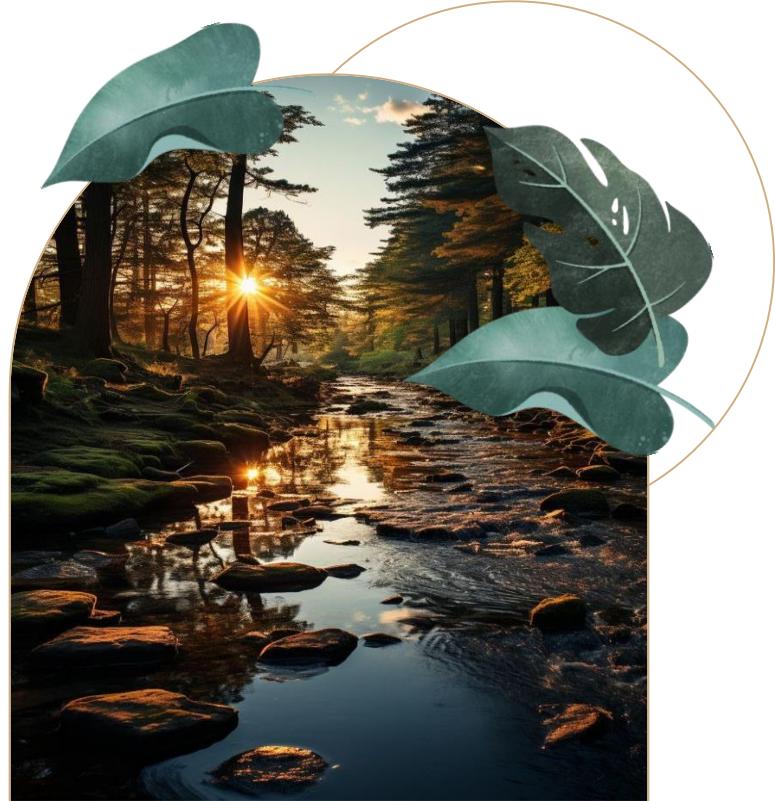




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Scope

& Outcomes



Scope:

In-Scope

- AI-powered itinerary generation
- Booking integrations (flights, trains, buses, hotels)
- Smart travel suggestions & recommendations
- Group chat for collaborative planning

Out-of-Scope

- Large-scale deployment & production scaling
- Advanced personalization beyond available APIs
- Offline functionality & support

Expected Outcomes:

Working Prototype

- Fully functional AI-powered trip planner website.
- Demonstrates integration of frontend, backend, and APIs.

Efficiency & Ease of Use

- Time-saving and stress-free travel planning.
- Simple and user-friendly interface for all types of users.

Collaboration

- Shared planning space for group trips.
- Real-time updates and coordination among members.

Personalization

- AI-driven customized itineraries.
- Enhanced travel experience tailored to user preferences.

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Conclusion



Conclusion Of The Presentation

✓ Problem Addressed

Travel planning is often tedious, time-consuming, and stressful.

➤ Our Solution

AI + APIs provide smart, personalized, and collaborative trip planning.

Ensures smooth integration of itinerary, bookings, and group coordination.

📍 Impact

Saves time and effort with an easy-to-use interface.

Reduces stress and improves the overall user experience.

Delivers a more enjoyable and personalized travel journey.





Thankyou