Hackathon Submission: Travel Itinerary Planner

1. Select Problem Statement

Travel Planning Made Easy
Travel planning is often time-consuming, overwhelming, and prone to errors. Travelers struggle to find reliable, personalized, and comprehensive itineraries that account for all aspects of their trip, such as flights, accommodations, activities, weather, safety, and local requirements. Our solution aims to **automate and simplify travel planning** using AI agents.

2. What is your Idea about? (Explain your solution)

Our solution is a Travel Itinerary Planner powered by AI agents that work together to create a detailed, personalized, and robust travel plan . Here's how it works:

1. **User Input Agent** : Collects user preferences, such as destination, travel dates, budget, and special requirements (e.g., dietary restrictions, accessibility needs).

2. **Flight Finder Agent** : Searches for the best flight options based on user preferences and budget.

3. **Accommodation Agent** : Finds hotels, Airbnbs, or other accommodations that match the user's needs.

4. **Activity Planner Agent** : Recommends activities, attractions, and places to visit using tools like Google Places API and TravelAid.

5. **Weather Agent** : Provides weather forecasts for the travel dates and suggests appropriate clothing or precautions.

6. **Safety Agent** : Checks crime rates, safety advisories, and local laws to ensure the traveler is well-informed.

7. **Local Requirements Agent** : Informs the user about visa requirements, vaccination rules, language tips, and time zone differences.

8. **Transportation Agent** : Recommends car rentals, ride-sharing services, or public transportation options.

9. **Food & Dining Agent** : Suggests restaurants, cafes, and local cuisines based on the user's preferences.

10. **Documentation Agent** : Uses the Canva API to compile all the information into a **beautiful, detailed presentation document** . Each page of the document covers a specific aspect of the trip (e.g., flights, accommodations, activities).

By combining these agents, our solution provides travelers with a comprehensive, stress-free itinerary that covers every aspect of their trip.

3. What problem are you trying to solve?

Travel planning is a **complex and time-consuming process** that involves:

- Researching flights, accommodations, and activities.

- Ensuring compliance with local requirements (e.g., visas, vaccinations).

- Accounting for weather, safety, and transportation.

- Organizing all this information into a usable format.

Many travelers end up with incomplete or suboptimal plans, leading to stress, unexpected costs, and missed opportunities. Our solution addresses these challenges by automating the entire process and providing a personalized, detailed itinerary that ensures travelers are fully prepared for their trip.

4. Technology Stack being used

- **AI Agents** : LangChain, OpenAI GPT-4, React Agents.

- **APIs** : Google Places API, TravelAid API, Weather API, Canva API.

- **Backend** : Python, FastAPI.

- **Frontend** : Streamlit , or React (for user interface).

- **Database** : PostgreSQL or MongoDB (for storing user preferences and itineraries).

- **Cloud**: AWS or Google Cloud (for deployment and scalability).

5. Impact of your solution

Our solution has the potential to **revolutionize travel planning** by:

- **Saving Time** : Automating the research and planning process saves travelers hours of effort.

- **Reducing Stress** : Providing a comprehensive itinerary ensures travelers are well-prepared and confident.

- **Improving Accessibility** : Catering to diverse needs (e.g., dietary restrictions, accessibility) makes travel more inclusive.

- **Enhancing Experiences** : Recommending personalized activities and local insights helps travelers make the most of their trip.

- **Promoting Safety** : Informing travelers about weather, crime rates, and local laws ensures a safe and enjoyable experience.

By making travel planning **easier, faster, and more reliable** , our solution empowers travelers to focus on enjoying their journey rather than worrying about the details.

6. Idea Submission Deck (Upload your idea submission ppt in pdf format)

(You can create a presentation deck based on the above content. Here's an outline for the slides:)

1. **Title Slide** : Travel Itinerary Planner – AI-Powered Travel Planning.

2. **Problem Statement** : Challenges in travel planning.

3. **Solution Overview** : How our AI agents work together.

4. **Technology Stack** : Tools and APIs used.

5. **Impact** : Benefits for travelers.

6. **Demo** : Screenshots or mockups of the user interface and itinerary document.

7. **Future Plans** : Scalability, additional features, and partnerships.

8. **Team** : Introduce your team members and their roles.

Next Steps

1. **Develop the Agents** : Build and test each AI agent (e.g., Flight Finder, Accommodation Agent, etc.).

2. **Integrate APIs** : Connect the agents to relevant APIs (e.g., Google Places, Weather API).

3. **Create the User Interface** : Design a simple and intuitive interface for users to input their preferences and view their itinerary.

4. **Generate the Itinerary Document** : Use the Canva API to compile the information into a presentation.

5. **Prepare the Hackathon Submission** : Finalize the idea submission and create the presentation deck.