

AI Powered – Travel Planner

Documentation

Overview

The **AI-Powered Travel Planner** is a Streamlit-based web application that helps users generate structured travel itineraries based on their preferences. It leverages **Google's Gemini AI (via `google.generativeai`)** to generate personalized trip plans.

Features


- **Destination-based Travel Planning**
- **Customizable User Preferences** (Budget, Activities, Diet, Accommodation, Walking Tolerance)
- **Custom Prompt Option** (For more specific requests)
- **Dynamic Loading Animations**
- **AI-Generated Itinerary Display**

Application Structure


- **User Input Handling**
 - Users can **enter their destination, number of days, budget, and other preferences**.
 - A **toggle button** allows switching between a **custom prompt** and structured input fields.
- **Generating AI Itinerary**
 - The app dynamically constructs a **structured prompt** for Gemini AI based on user inputs.
 - If the user enters a **custom prompt**, it overrides the structured inputs.
- **Loading Animation**
 - The app displays **rotating messages** to simulate processing time before fetching AI-generated results.
- **Displaying Results**
 - The **structured itinerary** is presented with headings and clear formatting.

How to Use:

1. **Enter Your Destination:**
 - Start by typing in the city or country you'd like to visit.
2. **Number of Days:**
 - Use the slider to select how many days you'll be traveling.
3. **Select Budget Level:**
 - Choose from "Low," "Medium," or "High" to indicate your budget.
4. **Additional Specifications (Optional):**
 - Click "✂ Additional Specifications" to fine-tune your trip:
 - **Preferred Activities:** Select from options like "Cultural," "Adventure," "Relaxation," "Food Tour," or "Nightlife."
 - **Walking Tolerance:** Choose how much walking you're comfortable with: "High," "Moderate," or "Low."
 - **Dietary Preferences:** Specify any dietary needs, such as "Veg-Food" or "Non-Veg."
 - **Accommodation Type:** Pick your preferred lodging, like "Budget," "Mid-range," "Luxury," "Near City Center," or "Quiet Location."
5. **Write Your Own Prompt (Optional):**
 - If you have a very specific plan in mind, click "✎ Write your own instead? Click here!"

- A text area will appear where you can type in your own custom prompt for the AI.
- To return to the standard input fields, click " Prefer choosing? Click here!"

6. **Build Your Travel Plan:**

- Once you've entered all your details, click " Build My Travel Plan."
- The app will display a loading animation while the AI creates your itinerary.
- After a moment, your personalized travel plan will appear!

Tips for Best Results:

- Be as specific as possible when entering your preferences.
- If using a custom prompt, provide clear and detailed instructions.
- If you are not happy with the first generated response, you can always change the input fields and re-generate the response.

Future Enhancements

- **Map Integration** for route visualization.
- **Speech to text** search for free hand use
- **Image generation of the destination**
- **Flight & Hotel API** integration for real-time booking.
- **Download Itinerary as PDF** feature.

Happy Travel!!!