**AI-Powered Travel Planner Documentation**

**📌 Project Overview**

The **AI-Powered Travel Planner** is a web application designed to generate customized travel itineraries based on user inputs such as budget, preferences, duration, and destination. The system leverages **Ollama** with the **LLaMA 3.2:1b** model for AI-powered responses and Wikipedia API for external data.

**🚀 Technologies & Libraries Used**

* **Python** (Backend)
* **Streamlit** (Frontend UI)
* **Ollama** (Model Execution)
* **LLaMA 3.2:1b** (AI Model)
* **Requests** (API calls)
* **Subprocess** (Shell commands for installation)
* **Platform & OS** (Detect OS for Ollama installation)

**📂 Setup & Installation Guide**

**Step 1: Clone the Repository**

git clone https://github.com/your-repo/travel-planner.git

cd travel-planner

**Step 2: Install Dependencies**

pip install -r requirements.txt

**Step 3: Run the Application**

streamlit run main.py

**📥 Model & Software Installation**

The application includes automatic installation of **Ollama** and downloads the **LLaMA 3.2:1b** model before running:

install\_ollama()

subprocess.run(["ollama", "pull", "llama3.2:1b"], check=True)

**📜 Prompt Engineering**

**System Prompt:**

You are an expert travel planner. Generate detailed, user-customized itineraries.

**Sample User Prompt:**

Plan a 5-day trip from New York to Paris for a history lover with a luxury budget.

**Sample Model Response:**

Day 1: Arrive in Paris, check-in to Ritz, Eiffel Tower dinner...

Day 2: Louvre Museum, Seine River cruise...

...

**🎯 Sample Inputs & Outputs**

**User Input:**

| **Field** | **Example** |
| --- | --- |
| Start Location | New York |
| Destination | Paris |
| Budget | Luxury |
| Duration | 5 Days |
| Purpose | Vacation |
| Preferences | History, Culture |

**AI-Generated Itinerary:**

Day 1: Louvre Museum, Eiffel Tower dinner...

Day 2: Versailles tour, Seine River cruise...

...

**🔗 Hosting & Deployment**

The application is hosted on **Streamlit Cloud**: 🔗 **Live Demo:** [https://your-streamlit-app-link](https://chatgpt.com/c/67e62817-06d8-8010-846d-6e9c8466b6fa)

**📄 Submission Details**

* **Final Prompts Used:** Included above.
* **Sample Inputs/Outputs:** See above.
* **Process Documentation:** Explained step by step.
* **Hosted Application:** [Streamlit Link](https://chatgpt.com/c/67e62817-06d8-8010-846d-6e9c8466b6fa)

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