Project Design Phase-II
Technology(Stack & Architecture)

Date	17 February 2026
Team ID	LTVIP2026TMIDS79519
Project Name	Travel Guide AI
Maximum Marks	4 Marks

Technical Stack:

The project uses the following technologies:

Layer	Technology Used
Frontend	Streamlit
Backend	Python
AI Model	Google Gemini (gemini-2.5-flash)
Development Environment	VS Code
Deployment	Localhost (Streamlit server)

Technology Justification

- **Streamlit** was chosen for rapid UI development and easy deployment.
- **Python** was selected due to strong AI and API support.
- **Google Gemini API** enables dynamic, context-aware itinerary generation.
- **VS Code** provides a lightweight and efficient development environment.

Technical Architecture:

TravelGuideAI application.

1. **User Opens the Application**

   The user launches the web application through a browser.
2. **User Enters Destination**

   The user specifies the travel location they wish to visit.
3. **User Enters Number of Days and Nights**

   The user provides trip duration details.
4. **User Enters Interests**

   The user mentions preferences such as beaches, adventure, food, culture, historical sites, etc.
5. **User Clicks “Generate” Button**

   The system processes the input and sends a request to the Gemini API.
6. **User Receives Personalized Itinerary**

   The AI-generated itinerary is displayed in a structured format, including:
   - Day-wise plan
   - Tourist attractions
   - Food recommendations
   - Travel tips

   This journey ensures a smooth, intuitive, and interactive user experience.