Project Design Phase-II
Technology Stack (Architecture & Stack)

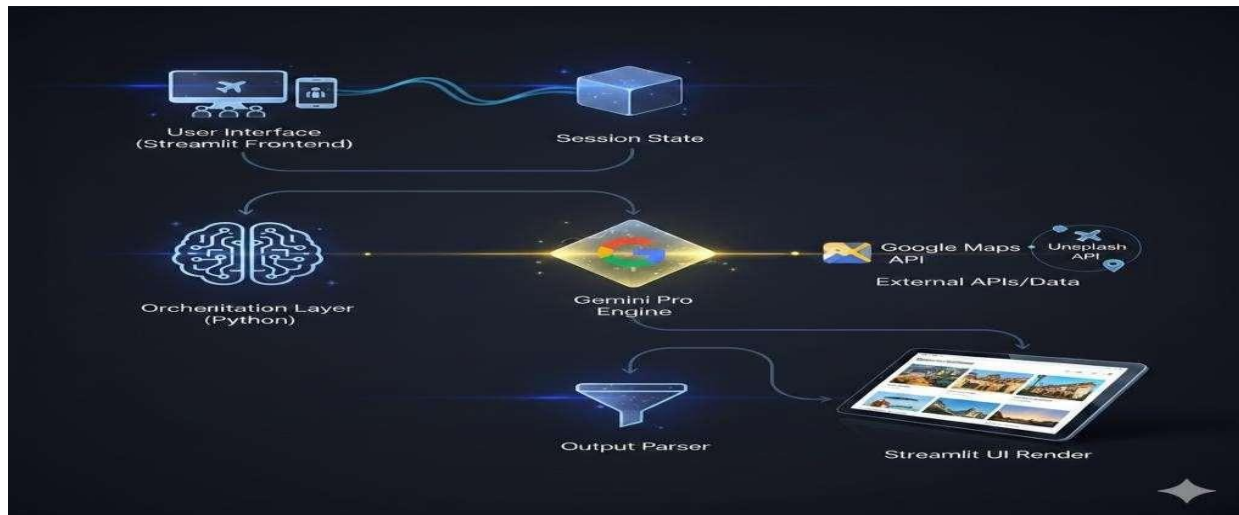| Date	11 February 2026
Team ID	LTVIP2026TMIDS78997
Project Name	Explore with AI: Custom Itineraries for Your Next Journey
Maximum Marks	4 Marks

Technical Architecture:

Table-1: Components & Technologies:

S.No	Component	Description	Technology Used
1	User Interface	Interactive web interface where users enter destination, budget, duration, and preferences	Streamlit

2	Application Logic	Processes user inputs and sends structured prompts to the AI model	Python
3	Generative AI Engine	Generates personalized travel itineraries based on user preferences	PaLM API (Google Generative AI)
4	Prompt Engineering Layer	Designs structured prompts to ensure accurate and relevant itinerary generation	Custom Prompt Templates (Python)
5	Response Processing	Formats AI-generated itinerary into readable sections (Day-wise plan, budget tips, etc.)	Python
6	Deployment Environment	Hosting and deployment of Streamlit application	Streamlit Cloud / Local Deployment
7	Future Enhancement	Save itineraries, recommendation learning, user preference memory	Database Integration (Future Scope)