

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

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| Date | 11 February 2026 |
| Team ID | LTVIP2026TMIDS88533 |
| Project Name | Explore with AI: Custom Itineraries for Your Next Journey |
| Maximum Marks | 4 Marks |

Technical Architecture:

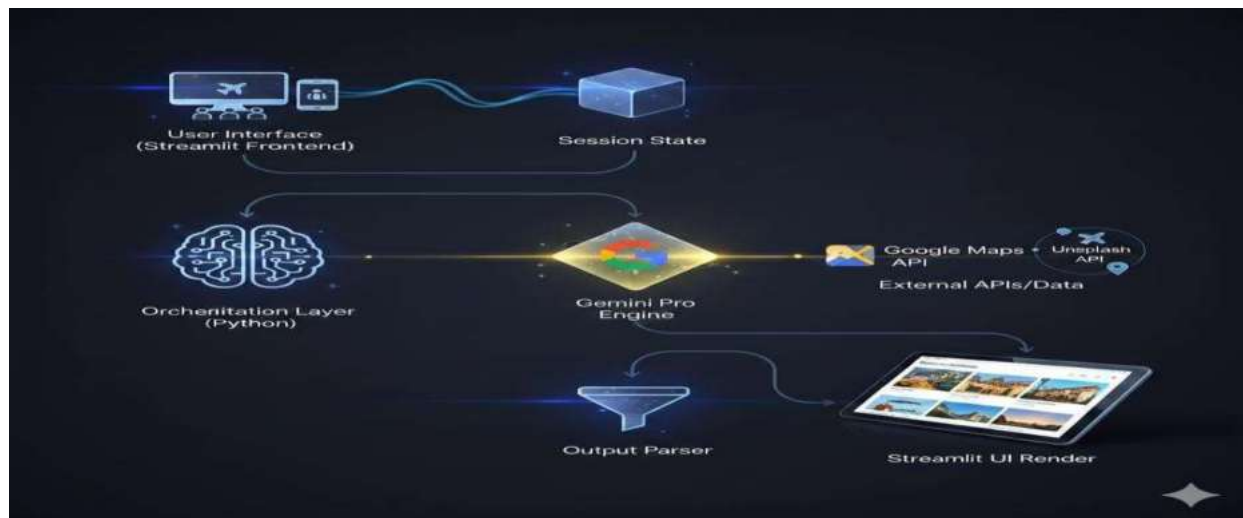


Table-1: Components & Technologies:

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| 1 | User Interface | Interactive web interface where users enter destination, budget, duration, and preferences | Streamlit |

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|---|--------------------------|--|-------------------------------------|
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| 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) |