

**Project Design Phase-II**  
**Solution Requirements (Functional & Non-functional)**

|               |   |
|---------------|---|
| Date          | 25 February 2026  |
| Team ID       | LTVIP2026TMIDS73330                                       |
| Project Name  | Explore With Ai: Custom Itineraries For Your Next Journey |
| Maximum Marks | 4 Marks   |

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

| FR No. | Functional Requirement (Epic) | Sub Requirement (Story / Sub-Task)   |
|--------|-------------------------------|--|
| FR-1   | Travel Itinerary Generation   | <ul style="list-style-type: none"> <li>User can enter destination.</li> <li>User can enter number of days.</li> <li>User can enter number of nights.</li> <li>System generates personalized travel itinerary using AI.</li> </ul>                            |
| FR-2   | Input Validation              | <ul style="list-style-type: none"> <li>Validate that destination field is not empty.</li> <li>Ensure number of days is greater than zero.</li> <li>Ensure number of nights is zero or positive.</li> <li>Display error message for invalid input.</li> </ul> |
| FR-3   | AI Model Integration          | <ul style="list-style-type: none"> <li>Create structured prompt using user input.</li> <li>Send prompt to generative AI model.</li> <li>Receive generated itinerary from AI.</li> <li>Format AI response properly.</li> </ul>                                |
| FR-4   | Output Display                | <ul style="list-style-type: none"> <li>Display itinerary in readable format.</li> <li>Allow user to review generated content.</li> <li>Show appropriate error message if API fails.</li> </ul>   |

**Non-functional Requirements:**

Following are the non-functional requirements of the proposed solution.

| FR No. | Non-Functional Requirement | Description   |
|--------|----------------------------|---|
| NFR-1  | <b>Usability</b>           | The application should provide a simple, intuitive, and user-friendly interface using Streamlit.                            |
| NFR-2  | <b>Security</b>            | The API key must be securely configured and not exposed publicly. User input should not be stored permanently.              |
| NFR-3  | <b>Reliability</b>         | The system should handle invalid inputs and API errors gracefully without crashing.   |
| NFR-4  | <b>Performance</b>         | The application should generate travel itineraries within a reasonable response time.                                       |
| NFR-5  | <b>Availability</b>        | The system should be accessible whenever the Streamlit server is running and internet connectivity is available.            |
| NFR-6  | <b>Scalability</b>         | The system architecture should allow future enhancements such as budget-based customization and additional travel features. |

