

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

Date	31 January 2025
Team ID	LTVIP2026TMIDS65532
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.

