

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">User can enter destination.User can enter number of days.User can enter number of nights.System generates personalized travel itinerary using AI. |
| FR-2 | Input Validation | <ul style="list-style-type: none">Validate that destination field is not empty.Ensure number of days is greater than zero.Ensure number of nights is zero or positive.Display error message for invalid input. |
| FR-3 | AI Model Integration | <ul style="list-style-type: none">Create structured prompt using user input.Send prompt to generative AI model.Receive generated itinerary from AI.Format AI response properly. |
| FR-4 | Output Display | <ul style="list-style-type: none">Display itinerary in readable format.Allow user to review generated content.Show appropriate error message if API fails. |

Non-functional Requirements:

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

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

