

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

Date	31 January 2025
Team ID	LTVIP2026TMIDS24242
Project Name	Gemini Historical Artifact Description
Maximum Marks	4 Marks

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Artifact Query	Search for Artifact details by Name
		Analyze Artifact details by Image Upload
		Adjust Description Length (Low/Medium/High)
FR-2	Content Generation	Generate Historical Background
		Generate Physical Characteristics & Significance
		Provide Interesting Facts & Modern Context
FR-3	Data Management	Download Analysis Report as Text File (.txt)
		Download Analysis Report as Markdown File (.md)
FR-4	Engagement	Display Random Historical Facts in Sidebar
		Contextual API Status Indicators

Non-Functional Requirements

NFR No.	Non-Functional Requirement	Description
NFR-1	Usability	The application must feature an intuitive, "museum-style" interface that is easy to navigate for users of all ages, with clear instructions and feedback messages.
NFR-2	Security	API keys must be stored securely (e.g., environment variables) and never exposed in the client-side code or public repositories.
NFR-3	Reliability	The system should handle API errors gracefully (e.g., timeouts, rate limits) by providing helpful error messages to the user instead of crashing.
NFR-4	Performance	The application should load the initial interface within 2 seconds, and generate AI responses within 5-10 seconds on average (dependent on API latency).
NFR-5	Availability	The web application should be accessible 99.9% of the time when deployed to a cloud platform like Streamlit Community Cloud.
NFR-6	Scalability	The backend architecture should support multiple concurrent users without significant degradation in response time, leveraging cloud auto-scaling capabilities.