

Project Design Phase
Proposed Solution Template

Date	15 February 2026
Team ID	LTVIP2026TMIDS24242
Project Name	Gemini Historical Artifact Description
Maximum Marks	2 Marks

Proposed Solution: Gemini Historical Artifact Explorer

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Museum visitors, students, and history enthusiasts lack immediate access to detailed, scholarly information about artifacts they encounter. Traditional text-based searches fail for visually identified objects, and museum placards often provide insufficient context or are in languages the user doesn't understand.
2.	Idea / Solution description	An AI-powered "Digital Curator" web application that uses Google Gemini 2.5 Flash to analyze artifact images and generate rich, structured historical descriptions. It bridges the gap between visual curiosity and deep historical knowledge, offering instant identification, context, and downloadable research summaries.
3.	Novelty / Uniqueness	Unlike standard search engines that rely on keywords, this solution uses multimodal AI to understand images directly. It combines visual recognition with historical expertise, delivering a "museum-quality" experience with a specialized UI, rather than just a generic chatbot interface.
4.	Social Impact / Customer Satisfaction	Democratizes access to historical knowledge, making museum exhibits more engaging and educational for everyone, regardless of their prior knowledge level. It empowers users to learn independently and fosters a deeper appreciation for cultural heritage.
5.	Business Model (Revenue Model)	Freemium Model: Basic access to text descriptions and limited image analysis is free. Premium Subscription: Unlimited high-resolution image analysis, downloadable PDF reports, ad-free experience, and access to an exclusive "Expert Mode" with deeper citations. Partnerships: Licensing the API/widget to museums for their own digital guides.
6.	Scalability of the Solution	The solution is highly scalable as it is built on a stateless architecture using Streamlit and cloud-based API calls to Google Gemini. It can easily handle increased traffic by scaling frontend instances horizontally in the cloud, while the heavy lifting of AI processing is offloaded to Google's robust infrastructure.