Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	10th FEBRUARY 2026
Team ID	LTVIP2026TMIDS75294
Project Name	Heritage Treasures: An In-Depth Analysis of UNESCO World Heritage Sites in Tableau
Maximum Marks	4 Marks

Technical Architecture:

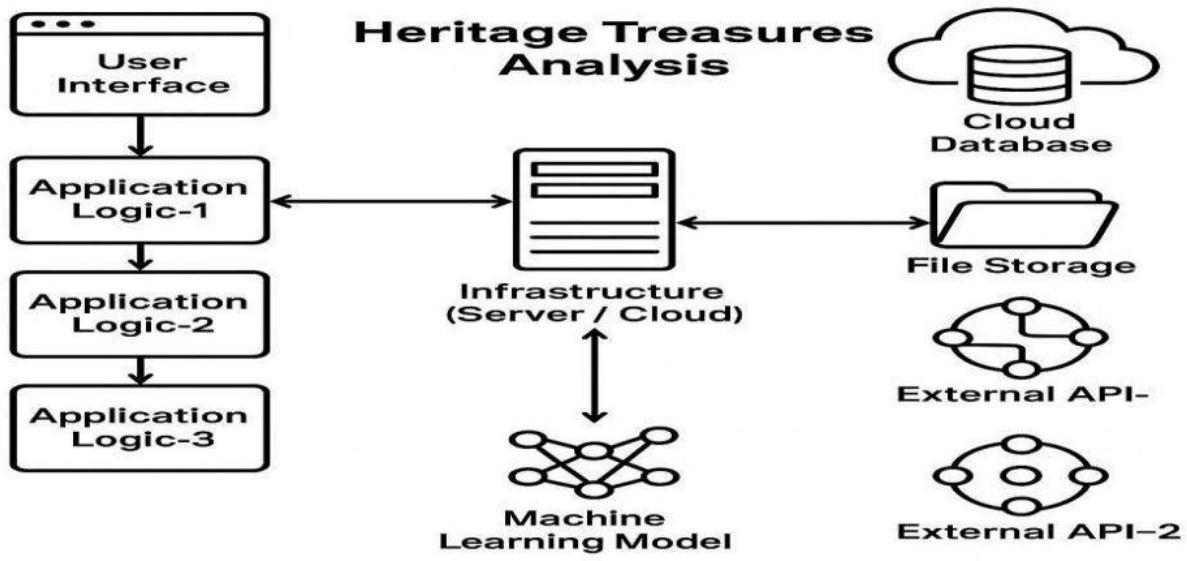

Table 1: Components & Technologies :

S.No	Component	Description	Technology
1	User Interface	Interface for researchers and public to interact	React JS / HTML / CSS
2	Application Logic-1	Processes analysis requests and filters data	Python
3	Application Logic-2	Speech to text processing for voice based input (if any)	IBM Watson STT Service
4	Application Logic-3	Conversational assistant for query support	IBM Watson Assistant
5	Database	Stores heritage site data	MySQL
6	Cloud Database	Cloud-based backup and scalability	IBM Cloudant
7	File Storage	Stores reports and visual assets	IBM Block Storage
8	External API-1	Fetches current environmental/weather info	IBM Weather API
9	External API-2	Validates user identity (optional)	Aadhar API

Table 2: Application Characteristics :

S.No	Characteristics	Technology
1	Open-Source Frameworks	React JS, Scikit-learn, TensorFlow
2	Security Implementations	SHA-256, OAuth 2.0, IAM Controls, OWASP Standards
3	Scalable Architecture	Microservices and Kubernetes-based deployment
4	Availability	Load Balancers, Multi-zone cloud deployment
5	Performance	Use of Redis cache, CDNs, optimized queries