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

Date	17 February 2026
Team ID	LTVIP2026TMIDS61476
Project Name	Heritage Treasures: An In-Depth Analysis of UNESCO World Heritage Sites in Tableau
Maximum Marks	4 Marks

Technical Architecture:

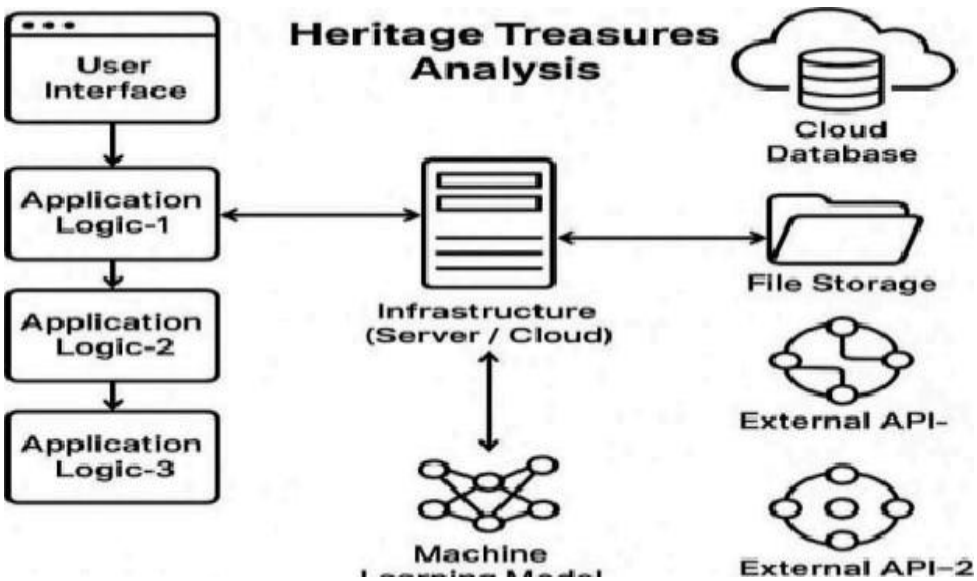

Table 1: Components & Technologies :

s.mo	Component	Description	Technology
	User Interface	Interface for researchers and public	React JS f HTMW CSS
2	Application Logic—I	Processes analysis requests and filters	Pytho n
3	Application Logic-2	Speech to text processing for voice based input (if any)	IBM Watson srr
4	Application Logic-3	Conversati Onal assistant for query support	IBM Watson
5		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 environmental/weather info	IBM Weather API
9	API-2	Validates identity (opt ional)	Aadhar

Table 2: Application Characteristics :

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