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

Date	28th May 2025
Team ID	LTVIP2025TMID48210
Project Name	Heritage Treasures: An In-Depth Analysis of UNESCO World Heritage Sites (2019)
Maximum Marks	4 Marks

Technical Architecture:

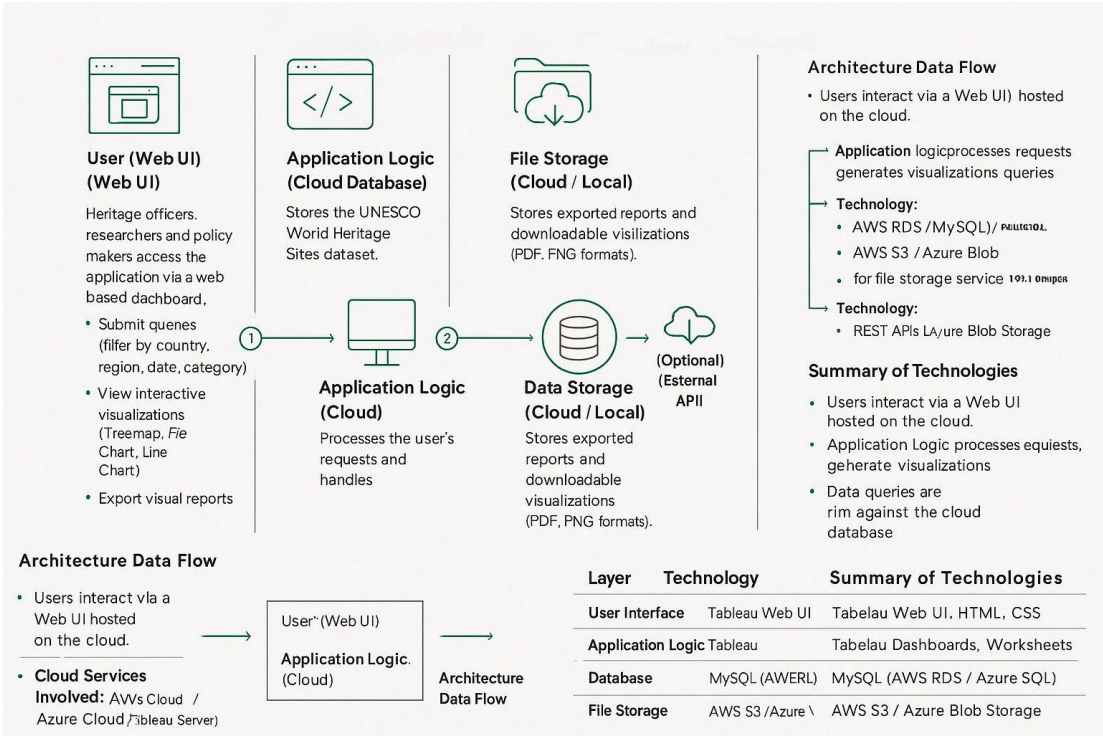

Table-1 : Components & Technologies:

S. No	Component	Description	Technology
1.	User Interface	Web-based dashboard to visualize heritage site data	Tableau Web UI, HTML, CSS
2.	Application Logic-1	Data processing and visualization logic	Tableau Worksheets / Calculated Fields
3.	Application Logic-2	Data filtering and parameter controls	Tableau Filters and Parameters
4.	Application Logic-3	future feature: ML-based site risk prediction	Not implemented
5.	Database	Heritage Sites Dataset (structured data)	MySQL / CSV file / Tableau Extract
6.	Cloud Database	Cloud-hosted database service	AWS RDS / Azure SQL Database
7.	File Storage	Storage for exportable reports and dashboards	AWS S3 / Local file system
8.	External API-1	future integration with UNESCO API	UNESCO Data API
9.	External API-2	Not applicable in current scope	N/A
10.	Machine Learning Model	Not applicable in current scope	N/A
11.	Infrastructure (Server / Cloud)	Cloud hosting for Tableau Server or Tableau Public	AWS Cloud / Azure Cloud / Tableau Public

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Use of open-source CSS frameworks for optional custom styling	Bootstrap, Tailwind CSS
2.	Security Implementations	Data encryption, HTTPS, IAM controls for secured user access	SSL, IAM, Tableau Role Permissions
3.	Scalable Architecture	Scalable cloud-hosted architecture (3-tier: UI, Application Logic, Database)	AWS Cloud / Azure Cloud / Tableau Server
4.	Availability	High uptime via cloud infrastructure with distributed access	AWS Elastic Load Balancer / Azure Load Balancer
5.	Performance	Tableau extracts for faster queries, optimized dashboards, optional CDN for caching	Tableau Extracts, AWS CloudFront CDN