

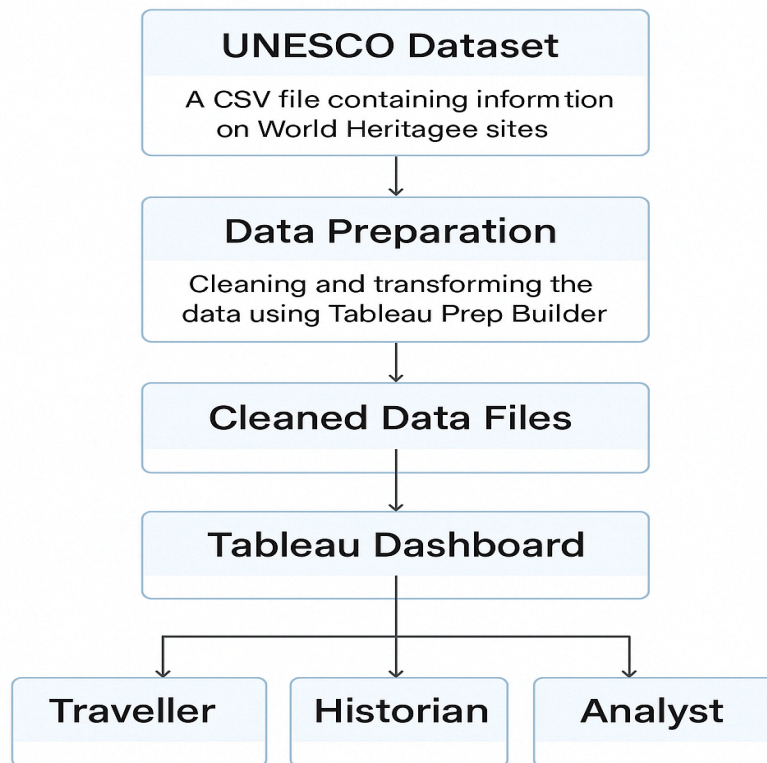
Project Design Phase-II Technology Stack (Architecture & Stack)

Date	21 JUNE 2025
Team ID	LTVIP2025TMID48544
Project Name	Heritage Treasures: An In-Depth Analysis of UNESCO World Heritage Sites in Tableau
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

The Technical Architecture of the Heritage Treasures Project outlines how different components work together to support the exploration, analysis, and visualization of UNESCO World Heritage Site data. This architecture is designed to ensure usability, scalability, availability, and performance while providing users—including travellers, historians, and data analysts—with meaningful insights.



Architecture
Diagram

S.N o	Component	Description	Technology
1.	User Interface	Web interface to interact with dashboards and visualizations	Tableau Public (Web UI), optionally HTML/CSS
2.	Application Logic-1	Logic for filtering, grouping and preparing site data	Java / Python
3.	Application Logic-2	Not applicable application	N/A
4.	Database	Data is structured and handled in flat file format (CSV), optionally loaded into structured tables	CSV, optionally Excel
5.	Cloud Database	Data shared using cloud storage (if needed)	Google Sheets, OneDrive
6.	File Storage	Stores raw and cleaned datasets locally or on shared drive	Local Filesystem, Google Drive
7.	External API-1	Could integrate UNESCO API for real-time updates (if implemented in future)	UNESCO API for real-time updates (if implemented in future)
8.	Infrastructure (Server / Cloud)	Project created and tested locally, optionally shared on web/cloud	Local system, Google Drive, Tableau Public

Table-2: Application Characteristics:

S · N o	Characteristics	Description	Technology
	Open-Source Frameworks	Public datasets accessed from UNESCO, optionally processed in Excel or Python (for custom pre-cleaning).	Python (Pandas), Excel, CSV
	Security Implementations	Restricted dataset editing to local environment; optional SHA-256 checksum validation for file integrity.	Local access control, SHA-256
	Scalable Architecture	Designed with modular stages: data input → prep → dashboard → multi-user access; easily expandable with other data sources or APIs.	3-Tier Architecture (Data → Logic → View)
	Availability	Dashboard available through Tableau Public links or exportable files; multiple access points for team.	Tableau Online/Public, Google Drive
	Performance	Lightweight dashboards optimized with filters and summaries; low-latency for small to mid-size datasets	Max ~100 requests/day supported manually