

# Project Design Phase-II

## Technology Stack (Architecture & Stack)

Date	11/02/2026
Team ID	LTVIP2026TMIDS36154
Project Name	Heritage Treasures: An In-Depth Analysis of UNESCO World Heritage Sites in Tableau
Maximum Marks	4 Marks

### Technology Stack

#### 1. Data Source Layer:

Component	Technologies / Tools Used
Data Source	<ul style="list-style-type: none"> <li>- UNESCO World Heritage Sites dataset (Excel / CSV)</li> <li>- Official UNESCO published records</li> <li>- Supplementary country-level information (optional enrichment)</li> </ul>

#### 2. Data Visualization Layer

Component	Technologies/Tools Used
Dashboard Tool	<ul style="list-style-type: none"> <li>- Tableau Desktop for dashboard design and development</li> <li>- Tableau Public for publishing and sharing dashboards</li> </ul>
Features	<ul style="list-style-type: none"> <li>- Interactive filters (Region, Country, Category, Year of Inscription)</li> <li>- Geospatial world map using Tableau Geo Roles</li> <li>- Bar charts, Line charts, KPI indicators, Highlight tables</li> <li>- Story feature for guided insights</li> </ul>

#### 3. Data Storage Layer

Component	Technologies/Tools Used
Storage Format	<ul style="list-style-type: none"> <li>- Excel file storage (Primary dataset)</li> <li>- Tableau Extract (.hyper) for optimized performance</li> </ul>
Data Handling	<ul style="list-style-type: none"> <li>- Structured tabular format</li> <li>- Categorized heritage types and regional groupings</li> </ul>

#### **4. Security & Access Control (If Published**

##### **Online)**

**Authentication** - Tableau Public profile access control (if shared)

- Tableau Server user permissions (if deployed privately)

**Data Access control** - Role-based access (if hosted internally)

- Row-level security (if required for restricted datasets)

#### **5. Data Processing & ETL Layer**

<b>Component</b>	<b>Technologies/Tools Used</b>
<b>ETL /</b>	- Microsoft Excel (initial formatting and cleaning)
<b>Data Cleaning</b>	- Python (Pandas) for optional advanced preprocessing - Tableau Calculated Fields for transformations
<b>Data Enrichment</b>	- Country codes and regional classification - External demographic or geographic indicators (if integrated)