

Project Design Phase-II
Solution Requirements (Functional & Non-functional)

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

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Create a dataset	Download the Heritage Treasures dataset. Add some attributes based on the requirements of the problem.
FR-2	Data Preparation	Import the dataset into Tableau Prep Builder. Clean the dataset by reviewing and transforming the data as needed. Remove non-required columns to focus only on relevant attributes. If a column contains comma-separated values, split them and merge them into one structured column. Finally, click on the Output step and save the result as a Tableau (.hyper) or CSV file.
FR-3	Data Visualization	Create a bar chart to show the number of sites in each category Create a pie chart to represent the percentage distribution of heritage sites across different regions. Create a filled map to highlight the top 10 countries with the highest number of heritage sites. Create a line chart to display the trend of heritage site inscriptions over the years and forecast future entries. Create a bubble chart to show the number of countries per region contributing heritage sites.

		<p>Create a filled map to show countries where heritage status has ended.</p> <p>Create a tree map to compare the number of endangered sites across different regions.</p> <p>Create a combination chart with bars representing danger site counts by year and a line showing the cumulative percentage of sites inscribed.</p>
FR-4	Performance Testing	<p>Amount of Data Loaded</p> <p>Utilization of Data Filters</p> <p>No of Visualizations/ Graphs</p>
FR-5	Web integration	Dashboard and Story embed with UI With Flask

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	The dashboards and visualizations should be intuitive and user-friendly, allowing users (e.g., researchers, analysts, students) to easily explore site categories, danger status, and regional insights.
NFR-2	Security	The project must ensure that data sources are trustworthy and any shared datasets or files are handled securely, especially when exporting or sharing output files like CSV or Tableau files.
NFR-3	Reliability	The solution should consistently produce accurate visual outputs without data corruption, ensuring trust in the insights drawn from the heritage dataset.

NFR-4	Performance	Visualizations should load efficiently in Tableau or other BI tools, even when filtering large amounts of regional or historical data.
NFR-5	Availability	The final dashboards or visual outputs should be accessible to all group members and stakeholders at any time for review or presentation.
NFR-6	Scalability	The system should support future enhancements, such as adding more UNESCO data, new years, or additional filters (e.g., tourist traffic, preservation efforts).