

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

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| Date | 12 February 2026 |
| Team ID | LTVIP2026TMIDS36160 |
| 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 | <p>Download the Heritage Treasures dataset.</p> <p>Add some attributes based on the requirements of the problem.</p> |
| FR-2 | Data Preparation | <p>Import the dataset into Tableau Prep Builder.</p> <p>Clean the dataset by reviewing and transforming the data as needed.</p> <p>Remove non-required columns to focus only on relevant attributes.</p> <p>If a column contains comma-separated values, split them and merge them into one structured column.</p> <p>Finally, click on the Output step and save the result as a Tableau (.hyper) or CSV file.</p> |

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| FR-3 | Data Visualization | <p>Create a bar chart to show the number of sites in each category</p> <p>Create a pie chart to represent the percentage distribution of heritage sites across different regions.</p> <p>Create a filled map to highlight the top 10 countries with the highest number of heritage sites.</p> <p>Create a line chart to display the trend of heritage site inscriptions over the years and forecast future entries.</p> <p>Create a bubble chart to show the number of countries per region contributing heritage sites.</p> |
| | | <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 | <p>Dashboard and Story embed with UI With Flask</p> |
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| 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. |

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| NFR-3 | Reliability | The solution should consistently produce accurate visual outputs without data corruption, ensuring trust in the insights drawn from the heritage dataset. |
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Non-functional Requirements:

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

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| 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). |