Final Project: Heritage Treasures

The "Heritage Treasures" project was created by Team LTVIP2025TMID50770 to study UNESCO World Heritage Sites using Tableau. The goal of this project is to understand where these important sites are located, which ones are in danger, and how their recognition has changed over the years.

The project was led by N Sri Bhoomika, with team members Shaik Yaseen, Nese Indu, and P Haritha. Together, they used data to make simple and clear visual charts that help people see patterns and important facts about world heritage sites.

This project helps raise awareness and supports efforts to protect and preserve valuable cultural and natural places around the world.

1. INTRODUCTION

1.1 Project Overview

"Heritage Treasures" is a data visualization project focusing on UNESCO World Heritage Sites. Using Tableau, the project explores the spatial and categorical distribution of these sites, uncovering trends and potential risks. The aim is to present insights that support heritage preservation and awareness.

1.2 Purpose

To provide an interactive and analytical view of UNESCO World Heritage Sites, highlight countries with the most sites, identify endangered sites, and observe regional inscription trends over time.

2. IDEATION PHASE

2.1 Problem Statement

Despite the global significance of World Heritage Sites, there is limited public awareness and visual understanding of their distribution, trends, and risk status. This project seeks to bridge that gap through intuitive data visualizations.

2.2 Empathy Map Canvas

Think & Feel: Stakeholders want insightful data to guide preservation.

See: Fragmented information across various websites.

Say & Do: Seek actionable strategies.

Hear: Growing concern about heritage site degradation.

Pain: Difficulty in identifying high-risk sites quickly.

Gain: One-stop visualization for decisions and awareness.

2.3 Brainstorming

- Use Tableau for dynamic charts
- Show country-wise site count
- Highlight endangered sites
- Plot inscription trends regionally

3. REQUIREMENT ANALYSIS

3.1 Customer Journey Map

Discover \rightarrow **Understand** \rightarrow **Analyze** \rightarrow **Act**

Users discover the visualizations, understand site distribution/risk, analyze trends, and take preservation actions.

3.2 Solution Requirement

- Dataset with site names, countries, regions, danger status, and inscription years
- Tableau for interactive dashboards

3.3 Data Flow Diagram

Input (UNESCO Dataset) \rightarrow Preprocessing \rightarrow Tableau Dashboard \rightarrow Visual Insights

3.4 Technology Stack

- Tool: Tableau
- Data Source: UNESCO World Heritage Sites (2019)
- Output: Visual Dashboards

4. PROJECT DESIGN

4.1 Problem Solution Fit

Enables heritage stakeholders to visualize data patterns for informed decisions.

4.2 Proposed Solution

Create 3 key Tableau visuals:

- 1. Country-wise block chart
- 2. Pie chart for danger status
- 3. Line chart for regional inscription trends

4.3 Solution Architecture

Data is preprocessed, imported into Tableau, and visualized using filters and charts based on user needs.

5. PROJECT PLANNING & SCHEDULING

5.1 Project Planning

- Week 1: Dataset Collection & Cleaning
- Week 2: Visual Design Prototyping
- Week 3: Dashboard Development

• Week 4: Final Testing & Documentation

6. FUNCTIONAL AND PERFORMANCE TESTING

6.1 Performance Testing

- Verified loading time of dashboards
- Ensured responsiveness for interaction and filters

7. RESULTS

7.1 Output Screenshots

(Include screenshots of each of the 3 visuals:

- Country block chart
- Danger status pie chart
- Regional trends line chart)

8. ADVANTAGES & DISADVANTAGES

Advantages:

- Interactive, intuitive visuals
- Helps identify high-risk areas quickly
- Regional growth tracking over time

Disadvantages:

- Limited to 2019 data
- Requires Tableau for dynamic access

9. CONCLUSION

The project successfully visualized vital information on UNESCO heritage sites. It serves as a valuable tool for awareness, research, and strategic planning in heritage conservation.

10. FUTURE SCOPE

- Incorporate real-time updates from UNESCO APIs
- Add economic/tourism data layers
- Enable web-based dashboard for public access

11. APPENDIX

- Source Code (if any): Not Applicable
- Dataset Link: <u>UNESCO World Heritage Sites (2019)</u>
- GitHub & Project Demo Link:

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