

10. FUTURE SCOPE

In the future, the project can be enhanced by:

- Integrating real-time data updates from UNESCO
- Expanding visualizations to include more detailed information, such as the impact of tourism or environmental factors on endangered sites
- Adding a predictive model to assess which sites might be endangered in the future

11. APPENDIX

- **Source Code:**
<https://drive.google.com/drive/folders/1ZspEmb4ha9LxbaOwOIHVpDhILIVGnFy7?usp=sharing>
- **Dataset Link:**
<https://drive.google.com/file/d/1VM1ewCCXigm0GXgplvBV3SoPoxURUQDv/view?usp=sharing>
- **GitHub & Project Demo Link:** <https://github.com/YusufPipalrawanwala/Smart-Bridge-Data-Analytics-/tree/main>

5.1 Project Planning

The project was completed in multiple phases:

- Data cleaning and preparation
- Creation of visualizations and dashboards
- Testing and refinement of the final dashboard
- Preparing the report and video demonstration

6. FUNCTIONAL AND PERFORMANCE TESTING

6.1 Performance Testing

The Tableau dashboard was tested for interactivity, ensuring smooth user experience even with larger datasets. Load times were kept under a reasonable threshold to maintain efficiency.

7. RESULTS

7.1 Output Screenshots

The final Tableau dashboard includes the following visualizations:

- **Geographical distribution** of UNESCO sites by region
- **Endangered status breakdown** across categories
- **Time-based visualizations** of site inscriptions over the years
- **Country-based analysis** of site counts

8. ADVANTAGES & DISADVANTAGES

Advantages

- Easy-to-navigate interactive dashboard
- Real-time data filtering for insights
- Accessible for various users (policymakers, conservationists, educators)

Disadvantages

- Requires Tableau for full interactivity
- Data updates may require manual intervention in Tableau

9. CONCLUSION

The project successfully provides a comprehensive, interactive analysis of UNESCO World Heritage Sites. It raises awareness about the endangered status of these sites and provides actionable insights for conservationists and policymakers.

3.1 Customer Journey Map

The user journey involves accessing the Tableau dashboard to:

- Explore sites by country, region, and category
- Filter and interact with the data to understand endangered status and other factors
- Gain insights into global heritage preservation

3.2 Solution Requirement

- Interactive Tableau dashboard with drill-down capabilities
- Data from UNESCO's database
- Tools for visual storytelling and analysis of endangered sites

3.3 Data Flow Diagram

The data flows from the cleaned CSV dataset into Tableau, where it is visualized and presented as a series of interactive reports and dashboards. This data is constantly updated and filtered for various insights.

3.4 Technology Stack

- **Data Cleaning:** Excel and Python (Pandas for data manipulation)
- **Visualization Tool:** Tableau for dashboard creation and interactive reports
- **Video Demonstration:** A screen recording showing the visualized dashboards

4. PROJECT DESIGN

4.1 Problem Solution Fit

The solution fits the problem by providing an interactive, visual approach to exploring UNESCO World Heritage Sites and understanding their endangered status. Users can filter by country, region, and other attributes to gain insights.

4.2 Proposed Solution

The proposed solution is a Tableau dashboard with several visualizations:

- Geographical map of the sites
- Time-based visualizations of inscriptions
- A detailed analysis of endangered sites

4.3 Solution Architecture

- **Data Layer:** Cleaned and processed CSV file containing all necessary attributes
- **Visualization Layer:** Tableau dashboards and interactive visualizations
- **User Interface:** Intuitive dashboard with filter options for easy exploration

5. PROJECT PLANNING & SCHEDULING

Final Report

Submitted By – Yusuf Pipalrawanwala

1. INTRODUCTION

1.1 Project Overview

This project, titled "**Heritage Treasures: An In-Depth Analysis of UNESCO World Heritage Sites,**" aims to explore and analyse the data of UNESCO World Heritage Sites worldwide using Tableau. The project leverages interactive visualizations, dashboards, and a comprehensive story to present insights related to the distribution, endangered status, and other attributes of these sites.

1.2 Purpose

The purpose of the project is to provide a deep dive into UNESCO World Heritage Sites, focusing on their geographical locations, categories, endangered status, and their inscribed year. The goal is to raise awareness about these heritage treasures and understand patterns such as the regions with the highest number of endangered sites or the correlation between site size and the likelihood of being endangered.

2. IDEATION PHASE

2.1 Problem Statement

How can we visualize and analyse the data of UNESCO World Heritage Sites to identify patterns in their distribution, endangered status, and other characteristics? The project aims to find trends that help in preserving these heritage sites, especially those at risk of being lost.

2.2 Empathy Map Canvas

This phase involves understanding the stakeholders—such as UNESCO, heritage conservationists, tourists, and educational institutions. Their needs focus on:

- Access to detailed, interactive data on heritage sites
- Understanding endangered sites and [taking action](#)
- Insights for preservation policies and funding

2.3 Brainstorming

Potential visualizations and insights were brainstormed, including:

- Geographical maps to display site locations globally
- Time series for tracking the year sites were inscribed
- Pie charts for endangered vs non-endangered sites
- Trend analysis on endangered sites by region

3. REQUIREMENT ANALYSIS

Final Report

Submitted By – Yusuf Pipalrawanwala

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