



# Project Title

Heritage Treasures: An In-Depth Analysis of UNESCO World Heritage Sites in Tableau

Team ID : LTVIP2025TMID60923

## Team Members:

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## INTRODUCTION

### 1. Project Overview

UNESCO World Heritage Sites are landmarks or areas recognized by the United Nations Educational, Scientific and Cultural Organization (UNESCO) for their cultural, historical, scientific, or other forms of significance. These sites are legally protected by international treaties and considered important for the collective interests of humanity. This project aims to provide an interactive, data-driven platform to explore, analyze, and visualize the distribution, types, and significance of World Heritage Sites across the globe.

### 2. Purpose

The purpose of this project is to deepen understanding of the global distribution and diversity of UNESCO World Heritage Sites, highlight preservation challenges, and enable data-driven insights for researchers, policymakers, and the general public.

## **IDEATION PHASE**

### **1. Project Overview**

This project explores UNESCO World Heritage Sites through data analytics and interactive dashboards. It provides insights into their geographic spread, classification, endangered status, and socioeconomic connections.

### **2. Purpose**

To promote awareness and drive preservation efforts by offering a comprehensive visual analysis of global heritage sites using open data and Tableau dashboards.

#### **Ideation Phase**

### **1. Problem Statement**

World Heritage Sites symbolize cultural and natural importance, but many face threats. There's a lack of unified, visual platforms for exploring trends and risk factors associated with these sites.

### **2. Brainstorming & Key Themes**

- Distribution by country, region, type
- Endangered status analysis
- Correlation with GDP and tourism
- Trends in year of inscription
- Dashboard storytelling using Tableau

#### **Requirement Analysis**

### **1. Customer Journey Map**

- **Discovery:** Users explore World Heritage sites
- **Exploration:** Navigate interactive dashboards
- **Insights:** Understand site classifications, threats, and global patterns
- **Action:** Support academic, tourism, or policy purposes

### **2. Solution Requirements**

#### **a. Functional**

- Data cleaning and transformation using Python
- Tableau dashboard development

- Web integration via Tableau Public

## b. Non-Functional

- Responsive UI for desktop and mobile
- Fast dashboard rendering
- Visual clarity and accessibility

### 3. Data Flow

- UNESCO Dataset → Cleaning & Preprocessing → Tableau Dashboards → Web Access → User Interaction

## 💻 Technology Stack

- Data Processing: Python (Pandas)
- Visualization: Tableau, Tableau Public
- Web Integration: HTML, CSS, Bootstrap

## 💻 Project Design

### 1. Problem-Solution Fit

The project visually contextualizes World Heritage data to help users analyze patterns in global preservation and cultural recognition.

### 2. Proposed Solution

A visual storytelling platform enabling users to filter heritage data by region, country, and type, and understand risk and significance through curated dashboards.

### 3. Solution Architecture

- Dataset extraction from UNESCO and World Bank
- Data preprocessing in Python
- Storyboard & dashboard design in Tableau
- Web publication using Tableau Public

## 📅 Project Planning & Schedule

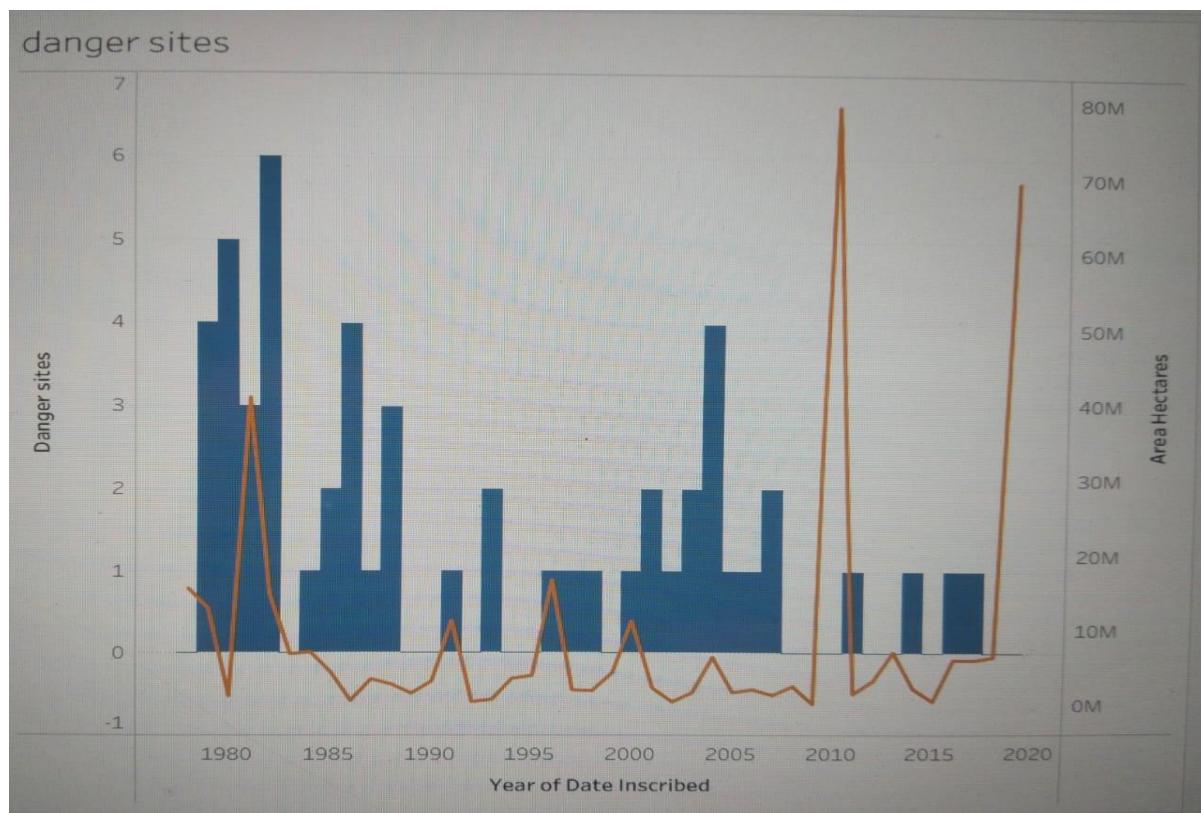
Phase	Duration
- Requirement Gathering	- Week 1
- Data Collection & Cleaning	- Week 2
- Data Analysis	- Weeks 3–4

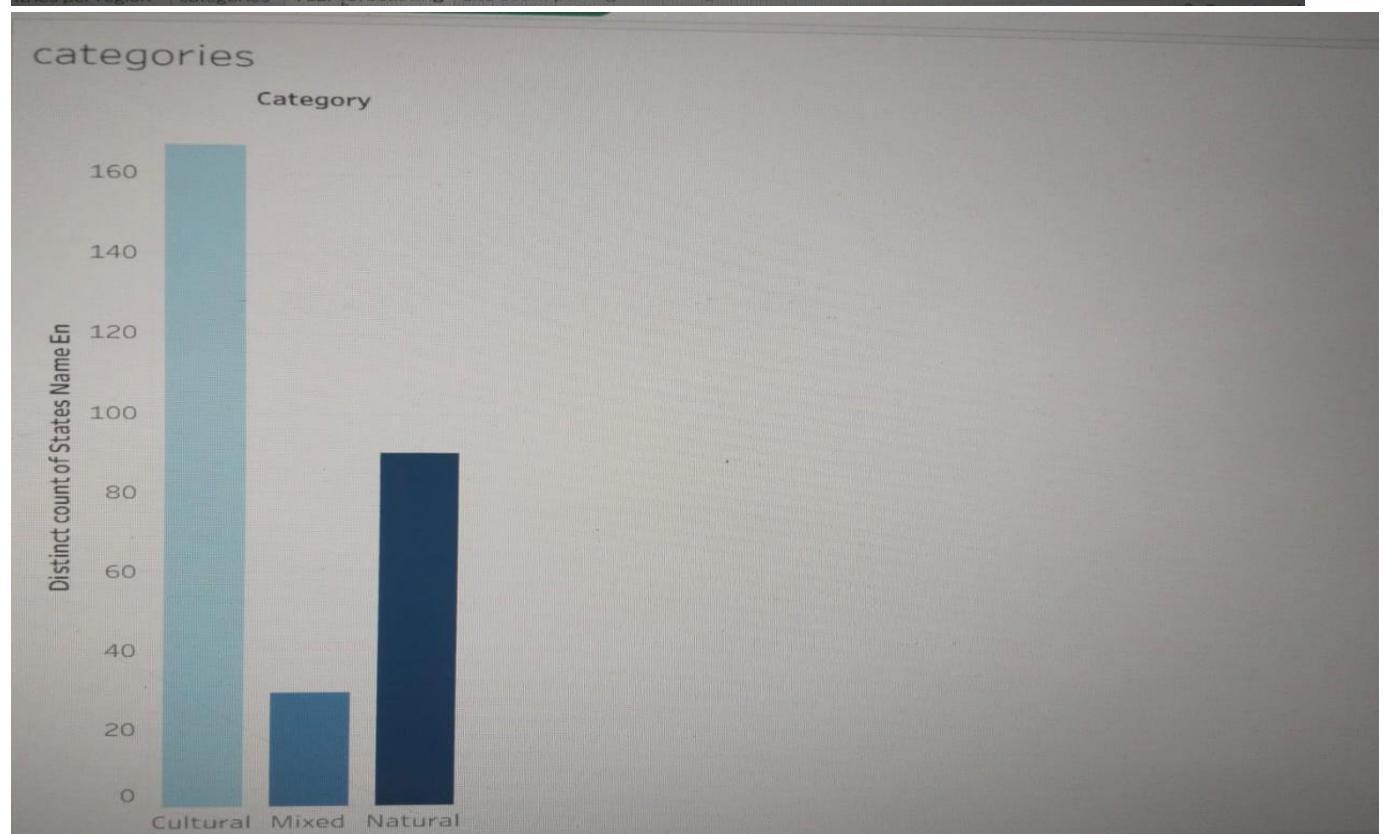
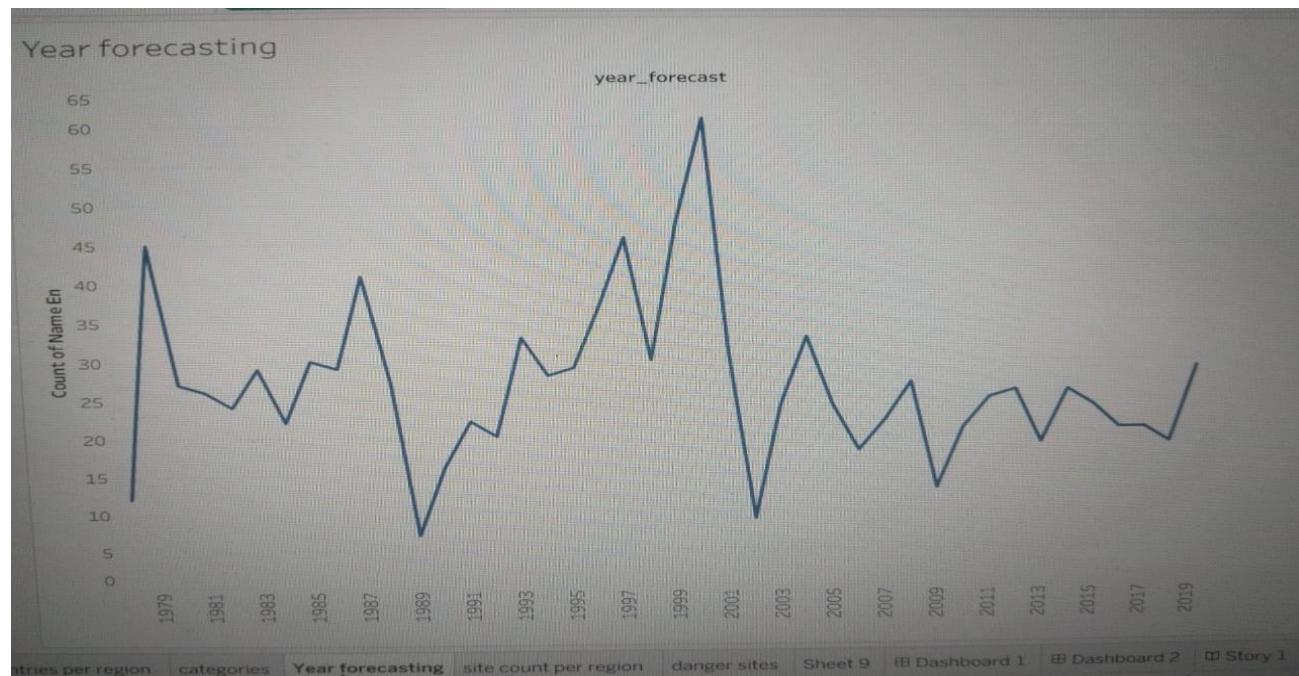
<b>Phase</b>	<b>- Duration</b>
- Dashboard Development	- Week 5
- Web Integration & Testing	- Week 6
- Final Report & Presentation	- Week 7
- <input checked="" type="checkbox"/> <b>Testing</b>	

### **- 1. Performance Testing**

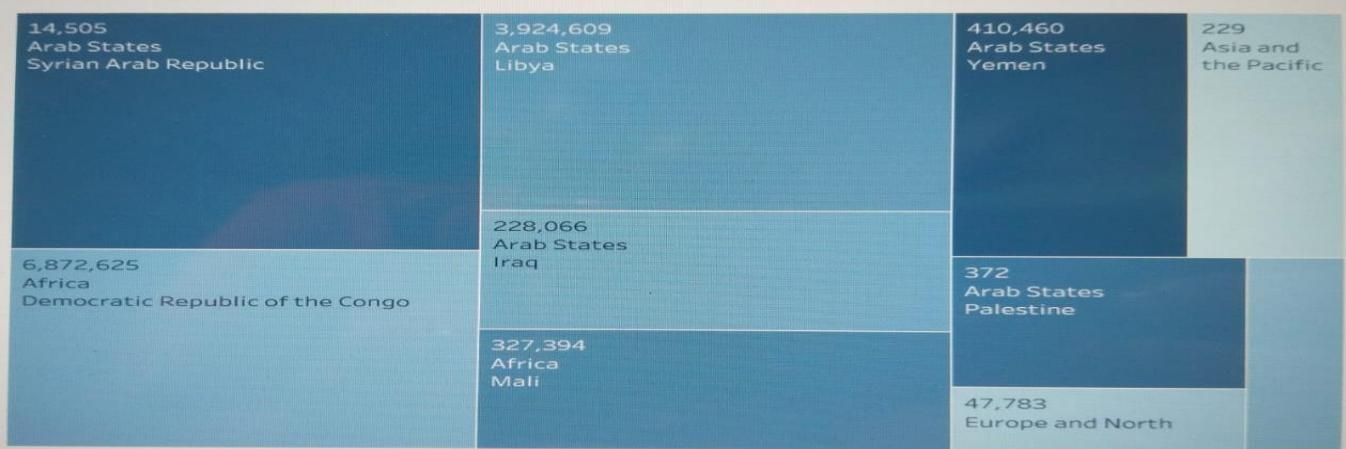
- Tested responsiveness across devices
- Verified visual accuracy of dashboard filters
- Confirmed functionality of interactive tooltips and storytelling components

### **Results (Screenshots to be added)**



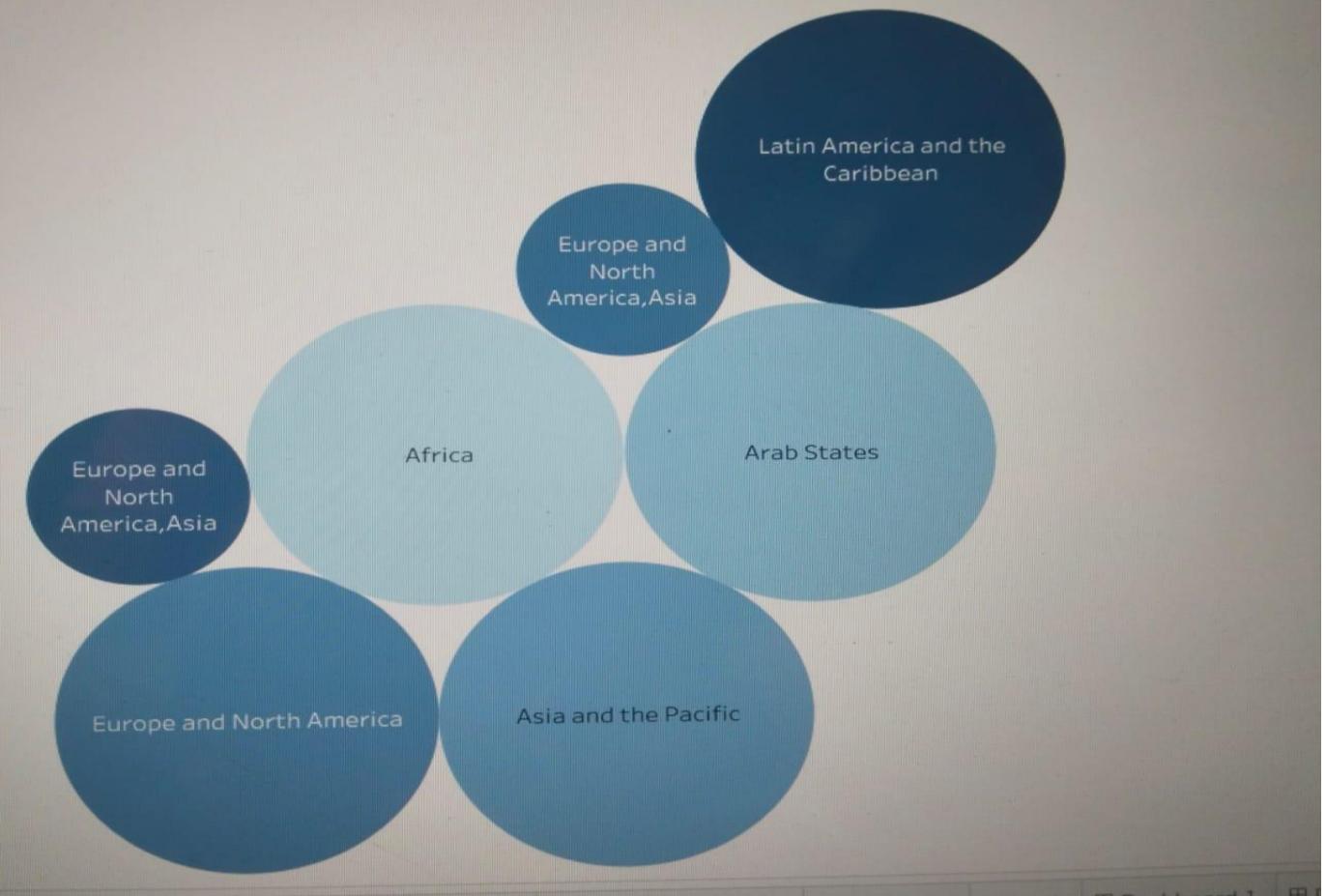


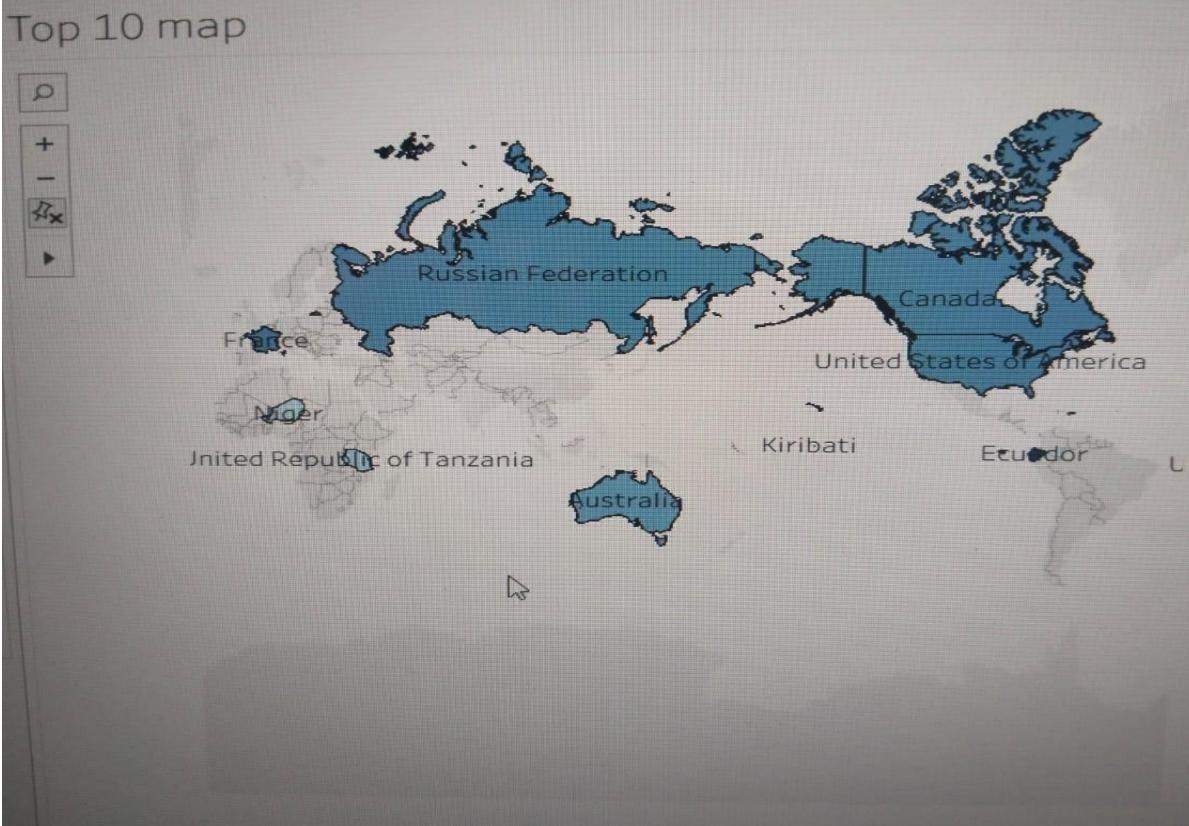
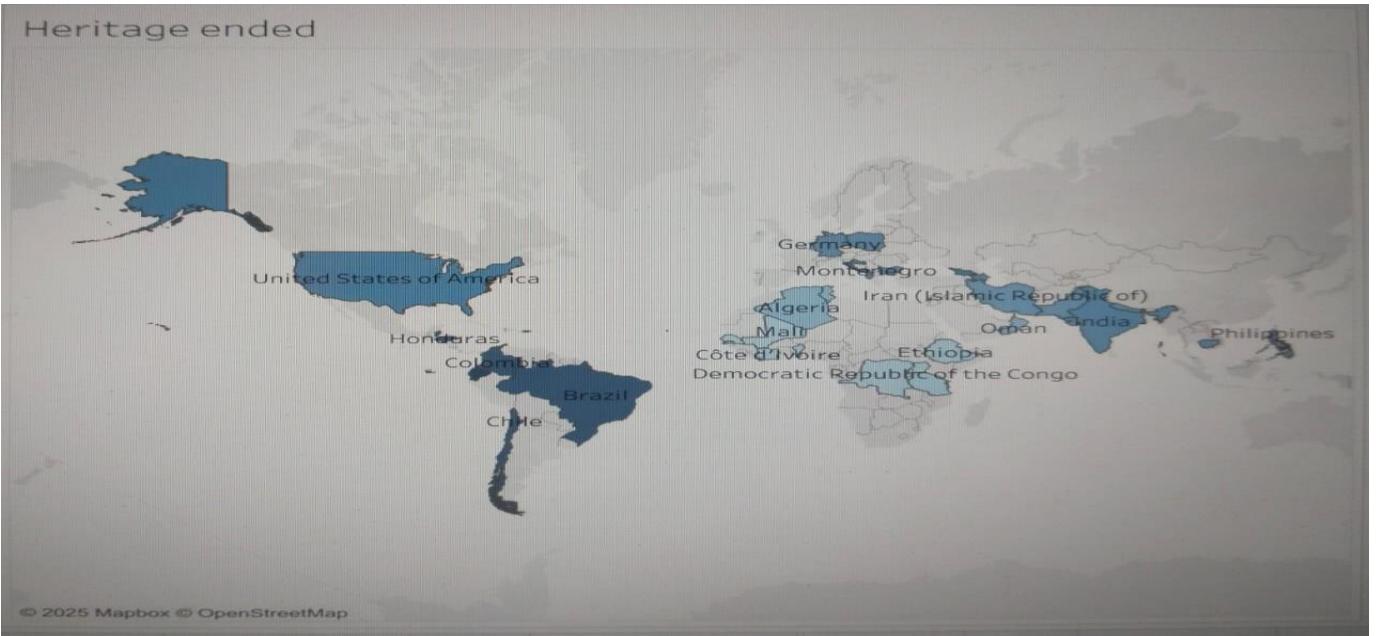
### Top 10 danger sites



Rows

### countries per region





## 👉 Advantages

- Intuitive visualization of complex global datasets

- Supports educational and preservation initiatives
- Encourages public engagement and cultural appreciation

### **⚠️ Disadvantages**

- Dependent on external datasets
- Inconsistent data granularity in older inscriptions
- Endangered status updates may lag

### **▣ Conclusion**

- This project highlights the power of data visualization to support cultural heritage awareness. By analyzing UNESCO World Heritage data, the dashboards empower users to grasp the scale, value, and vulnerability of global heritage.

### **↗ Future Scope**

- Add predictive models for threat risks
- Integrate satellite images of endangered sites
- Incorporate HDI and tourism data
- Enable user-generated contributions or feedback per site

### **📎 Appendix**

#### **- UNESCO Dataset:**

Dataset : <https://www.kaggle.com/datasets/ujwalkandi/unesco-world-heritage-sites/data?select=whc-sites-2019.csv>

- **DashboardLink:**  
[https://public.tableau.com/views/UNESCOHERITAGE/Dashboard1?:language=en-US&publish=yes&:sid=&:redirect=auth&:display\\_count=n&:origin=viz\\_share\\_link](https://public.tableau.com/views/UNESCOHERITAGE/Dashboard1?:language=en-US&publish=yes&:sid=&:redirect=auth&:display_count=n&:origin=viz_share_link)
- **StoryboardLink:**  
[https://public.tableau.com/views/UNESCOHERITAGE/Story1?:language=en-US&publish=yes&:sid=&:redirect=auth&:display\\_count=n&:origin=viz\\_share\\_link](https://public.tableau.com/views/UNESCOHERITAGE/Story1?:language=en-US&publish=yes&:sid=&:redirect=auth&:display_count=n&:origin=viz_share_link)