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

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

Category: Data Analytics with Tableau

skills Required:

Tableau

Project Description:

Scenario 1: Heritage sites by country

Scenario to the number of heritage sites it contains. This visualization will quickcountries have the most UNESCO World Heritage Sites, offering a clear and comprehensive view of heritage site distribution. The key columns used for this visualization are Country and Name_en. Heritage
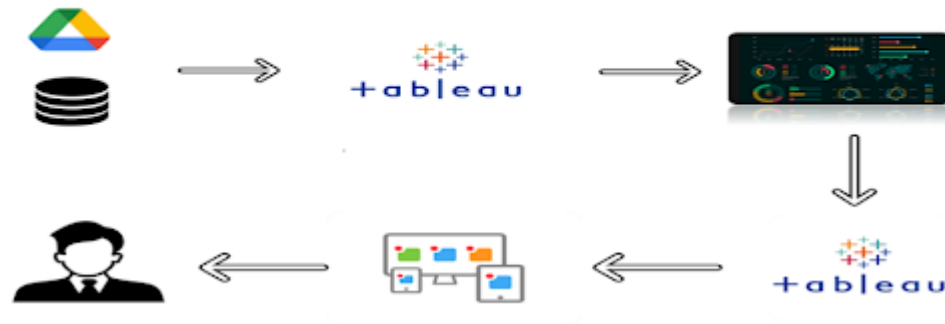
Scenario 2: Sites at risk

for This pie chart will display the proportion of UNESCO World Heritage Sites listed as being in danger, segmenting the sites into 'In Danger' and 'Not in Danger' categories. This visual aids in understanding the severity of threats to world heritage sites, allowing stakeholders to focus their preservation efforts on the most vulnerable sites. The columns Danger and Name_en will be used this visualization.

Scenario 3: Regional Inscription Trends

Regional Inscription Trends" will be included using a Line Chart. This chart will show the trend of new site inscriptions over the years, segmented by region, providing insights into which regions have seen the most growth in terms of heritage site inscriptions. By visualizing the columns Date_inscribed and Region, this chart will help identify regions with increasing heritage conservation efforts and highlight historical trends Regional Inscription Trends" will be included using a Line Chart. This chart will show the trend of new site inscriptions over the years, segmented by region, providing insights into which regions have seen the most growth in terms of heritage site inscriptions. By visualizing the columns Date_inscribed and Region, this chart will help identify regions with increasing heritage conservation efforts and highlight historical trends.

Technical Architecture

Technical Architecture:

Project Flow

To accomplish this, we have to complete all the activities listed below,

? Data Collection & Extraction from Database

o Collect the dataset,

o Connect data with Tableau

? Data Preparation

o Prepare the Data for Visualization

? Data Visualizations

o No of Unique Visualizations

? Dashboard

o Responsive and Design of Dashboard

? Story

 o No of Scenes of Story

 ? Performance Testing

o Amount of Data Loaded

o Utilization of Data Filters

o No of Calculation Fields

o No of Visualizations/ Graphs

? Web Integration

o Dashboard and Story embed with UI With Flask

? Project Demonstration & Documentation

? Projeo Record explanation Video for project end to end solution

o Project Documentation-Step by step project development procedure **c**

Data collection & Extraction from Database

Data collection is the process of gathering and measuring information on variables of interest, in an established systematic fashion that enables one to answer stated research questions, test hypotheses, evaluate outcomes and generate insights from the Data

Downloading the dataset

Duration: 0.5 Hrs

Skill Tags:

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

Data contains all the meta information regarding the columns described in the CSV files

Column Description of the Dataset:

1.ID No.: Unique identifier for each UNESCO World Heritage Site.

2.Name_en: English name of the World Heritage Site.

3.Region: Geographical region where the site is located.

4.Country: Country in which the site is situated.

5.Location: Specific location of the site within the country.

6.Date_inscribed: Year the site was added to the UNESCO list.

7.Danger: Indicator of whether the site is listed as being in danger.

8.Endangered Year: Year in which the site was listed endangered

9.Date_end:The end date for the site's status as a World Heritage.

10.Category:Type of site (Cultural, Natural, Mixed).

11.Criterion 1-10: specific creteria under which the site qualifies world heritage status.

Data Preparation

Preparing the data for visualization involves cleaning the data to remove irrelevant or missing data, transforming the data into a format that can be easily visualized exploring the preparing the data for visualization software, and ensuring the data is accurate and complete. This process helps to make the data easily understandable and ready for creating visualizations to gain insights into the performance and efficiency. Since the data is already cleaned, we can move to visualization.

Explanation video links

Duration: 1 Hrs

Skill Tags:

Explanation video link 1: Data Loading:
https://drive.google.com/file/d/1Y941JkukrTiOOAJS4WohiqTVDcMSP29v/view?usp=sharing

Explanation video link 2: Data Cleaning:
https://drive.google.com/file/d/16Cx2C1XpatahNAHbNNVQ-4l3NgKJxJBv/view?usp=sharing

Data Visualization

Data visualization is the process of creating graphical representations of data to help people understand and explore the information. The goal of data visualization is to make complex data sets more accessible, intuitive, and easier to interpret. By using visual elements such as charts, graphs, and maps, data visualizations can help people quickly identify patterns, trends, and outliers in the data.

No.of Unique Visualizations

Duration: 1 Hrs

Skill Tags:

Using the given dataset, several unique visualizations can be created to analyze the dietary habits, nutritional intake, and health outcomes of college students. These visualizations include bar charts, line charts, heat maps, scatter plots, pie charts, and maps. These can be used to compare performance, track changes over time, show distribution, identify relationships, breakdown nutritional intake, provide demographic insights, inform resource

allocation, and conduct geographical analysis. By leveraging these diverse visualizations, stakeholders can gain comprehensive insights into the dietary choices and health of college students, enabling data-driven decisions to promote better nutrition and overall well-being.
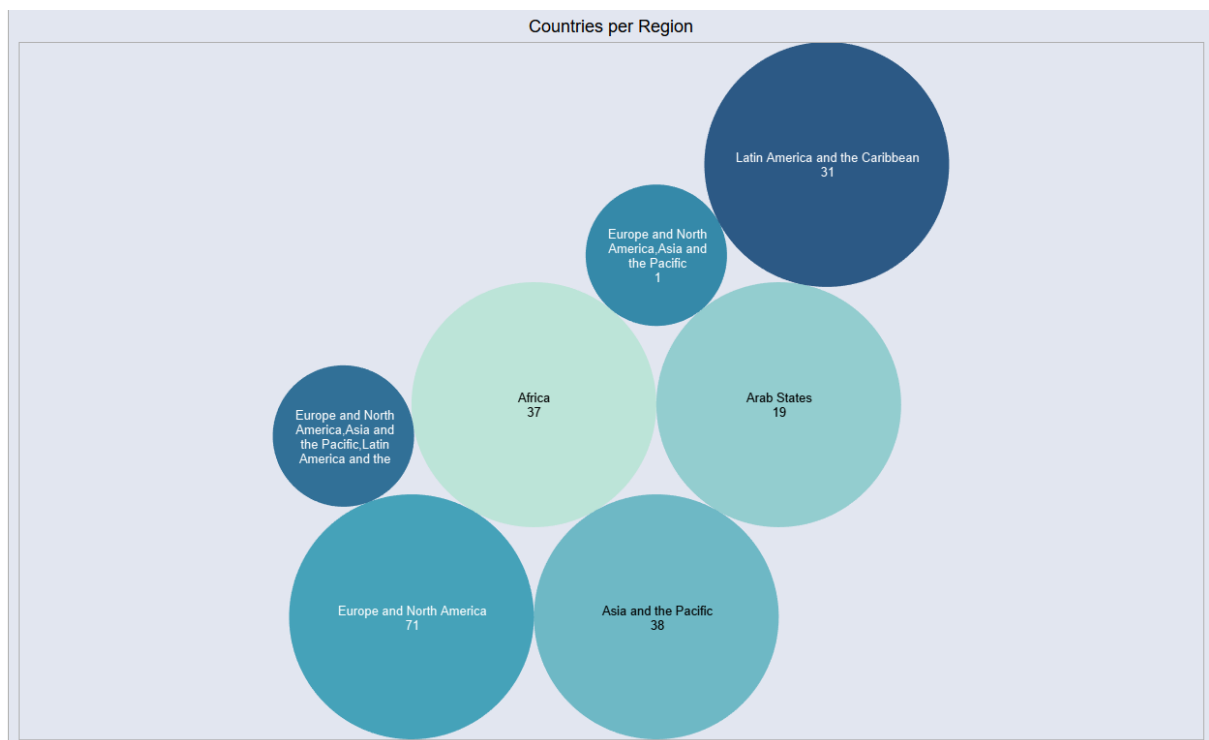
visualizations
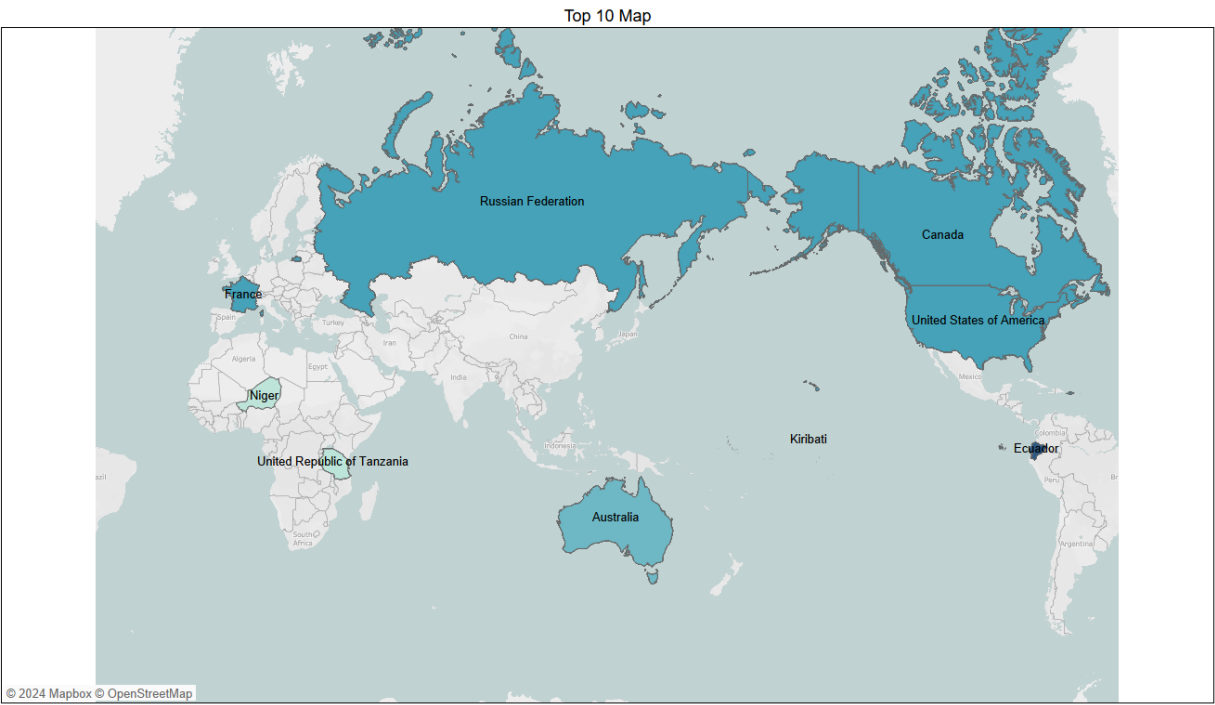
Duration: 1 Hrs

Skill Tags:

Explanation link for all visualizations: https://drive.google.com/file/d/1wZSY11xLTglUn50D9Isc6NU2CkEiBSQz/view?usp=sharing
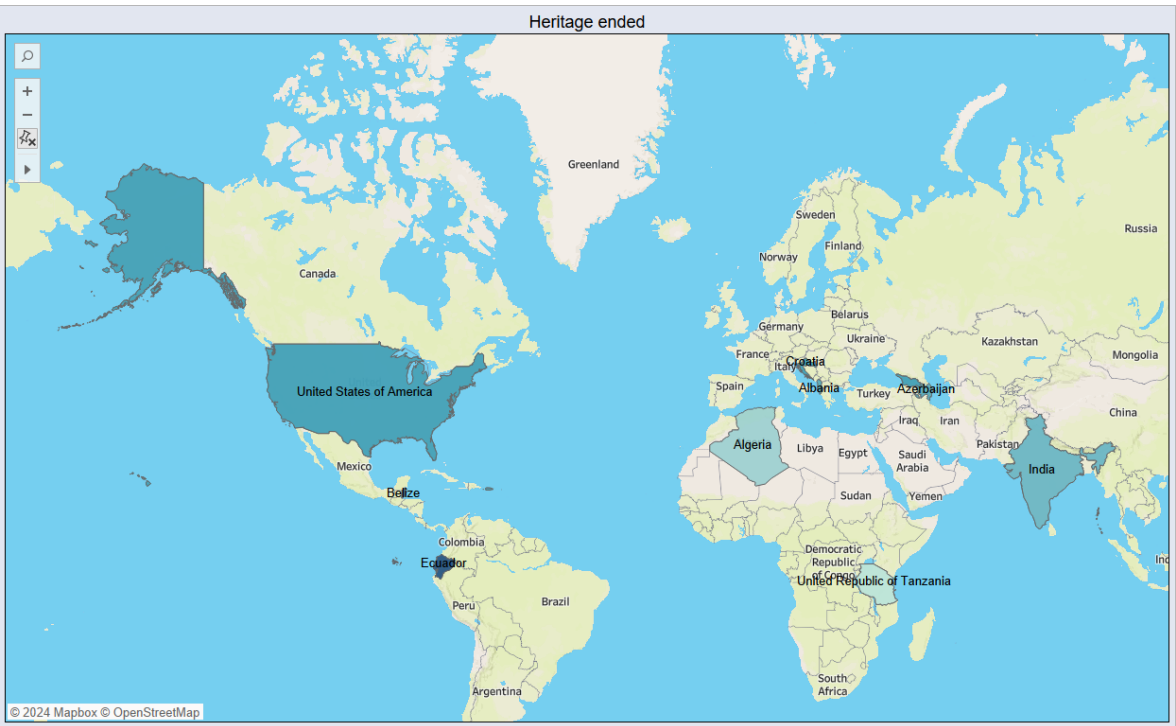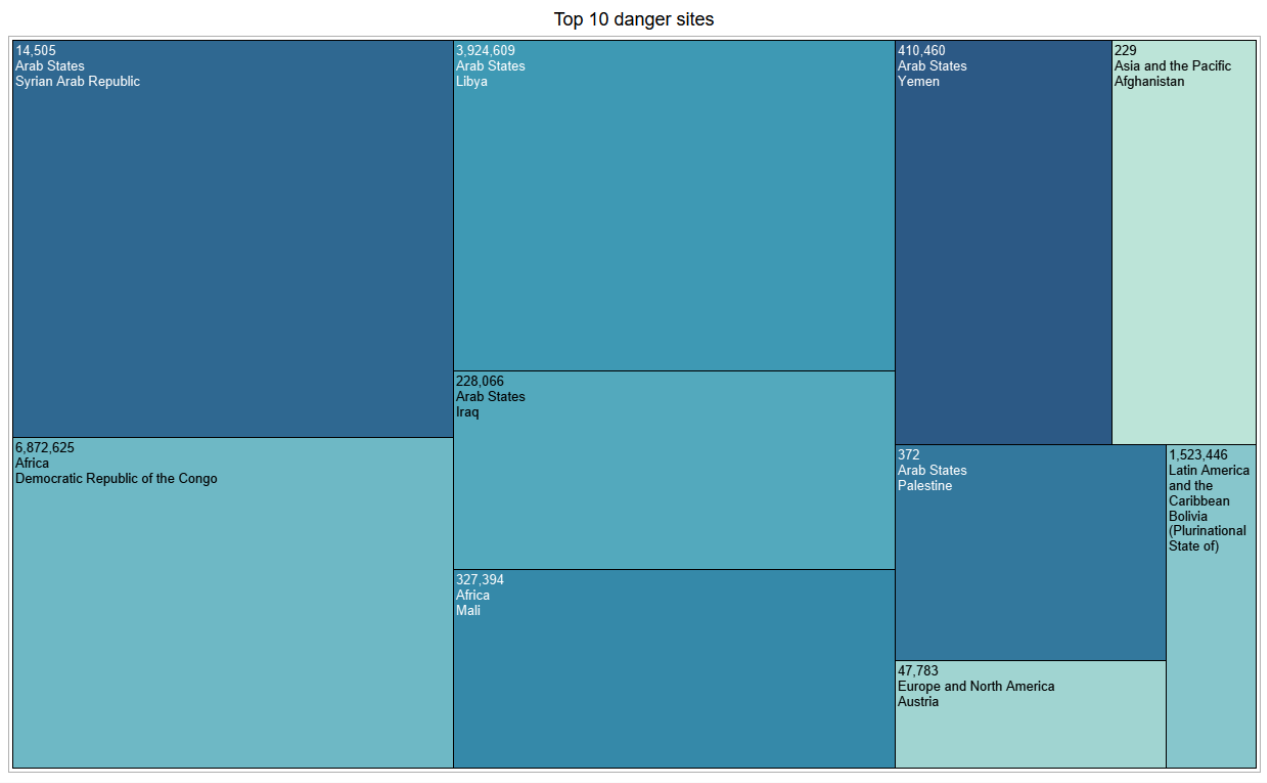
Activity 1.1: Countries per Region
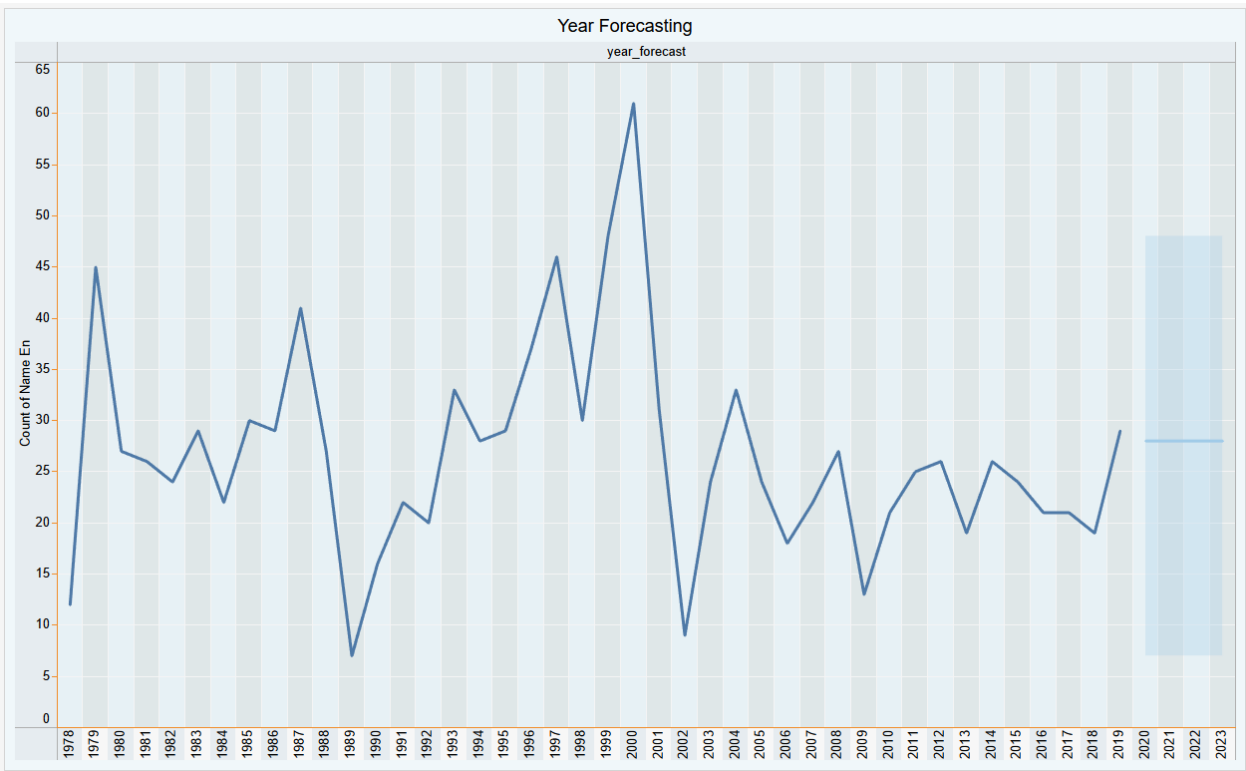
Activity 1.2: Top 10 regions by area

Activity 1.3: Regions by Heritage ended
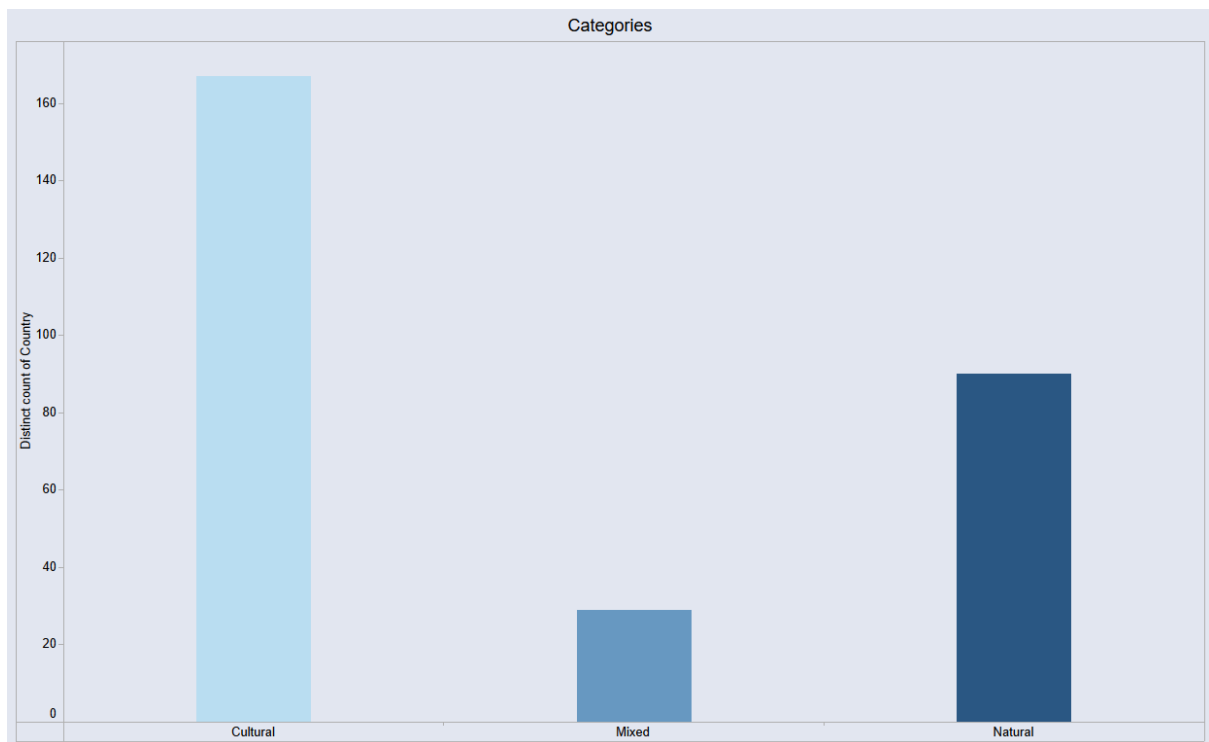
Activity 1.4 : Top 10 Danger Sites prone to Extinction

Top 10 danger sites

| 14,505 Arab States Syrian Arab Republic | 3,924,609 Arab States Libya | 410,460 Arab States Yemen | 229 Asia and the Pacific Afghanistan |

| 228,066 Arab States Iraq |

| 6,872,625 Africa Democratic Republic of the Congo | 372 Arab States Palestine | 1,523,446 Latin America and the Caribbean Bolivia (Plurinational State of) |

| 327,394 Africa Mali | 47,783 Europe and North America Austria |

Activity 1.5 : Year Forecasting of Heritages

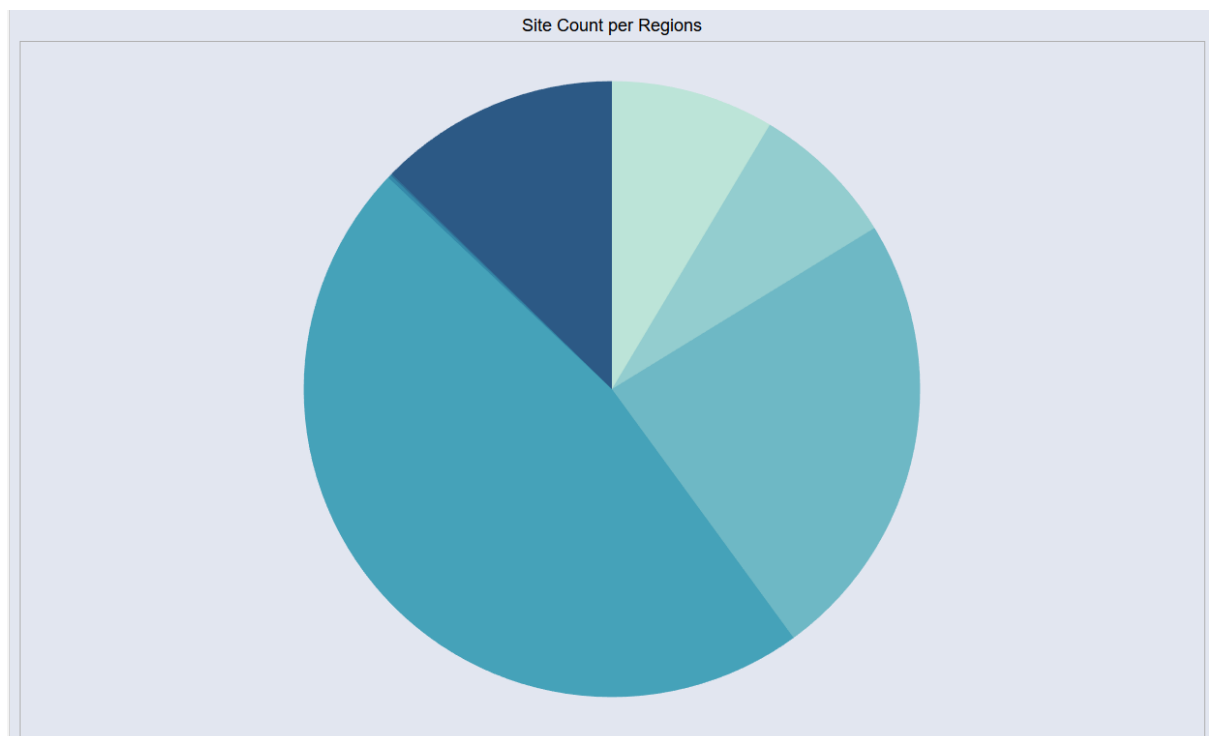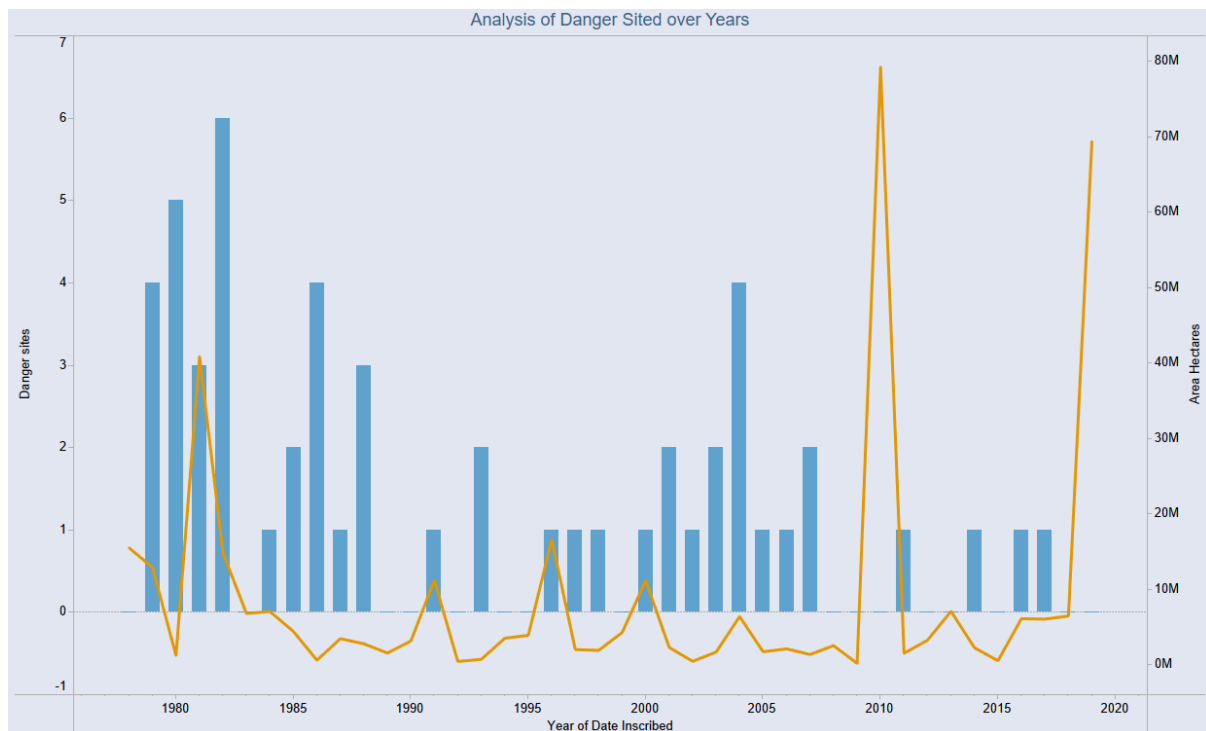**Activity 1.6 : Categories by sites count**

Activity 1.7 : Site Count per Region

Activity 1.8 : Analysis of Danger sites and Area of heritages

Note:All the above visualizations were explained in the link mentioned above.

Dashboard

A dashboard is a graphical user interface (GUI) that displays information and data in an organized, easy-to-read format. Dashboards are often used to provide real-time monitoring and analysis of data and are typically designed for a specific purpose or use case. Dashboards can be used in a variety of settings, such as business, finance, manufacturing, healthcare, and many other industries. They can be used to track key performance indicators (KPIs), monitor performance metrics, and display data in the form of charts, graphs, and tables.
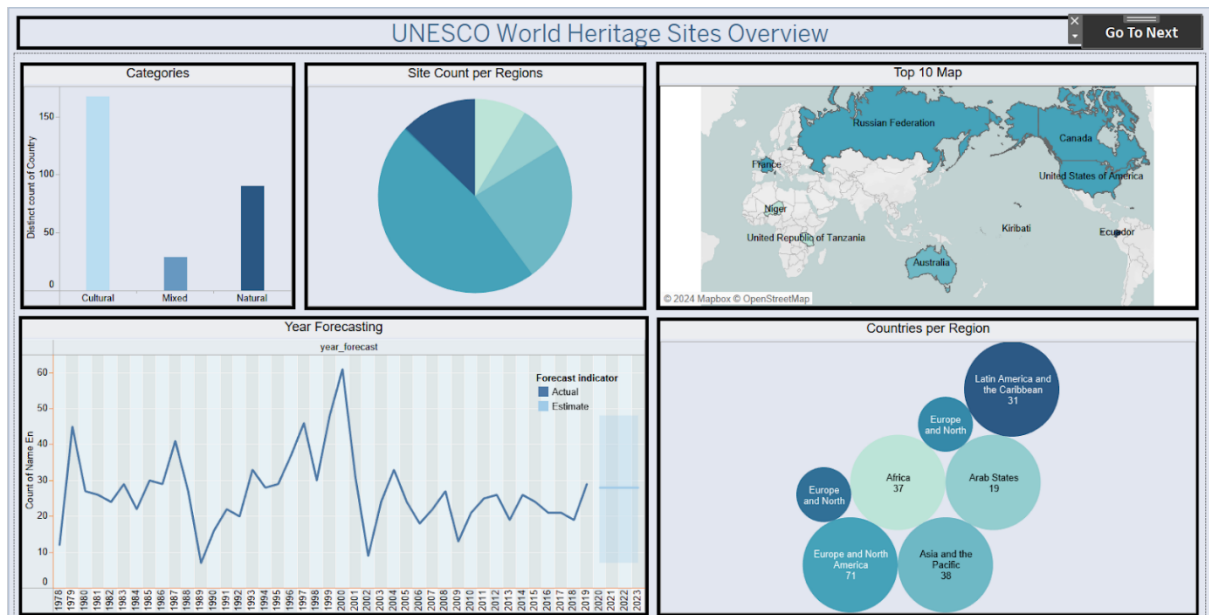
Dashboard 1

Duration: 1 Hrs

Skill Tags:

Dashboard 1:UNESCO World Heritage Site Overview

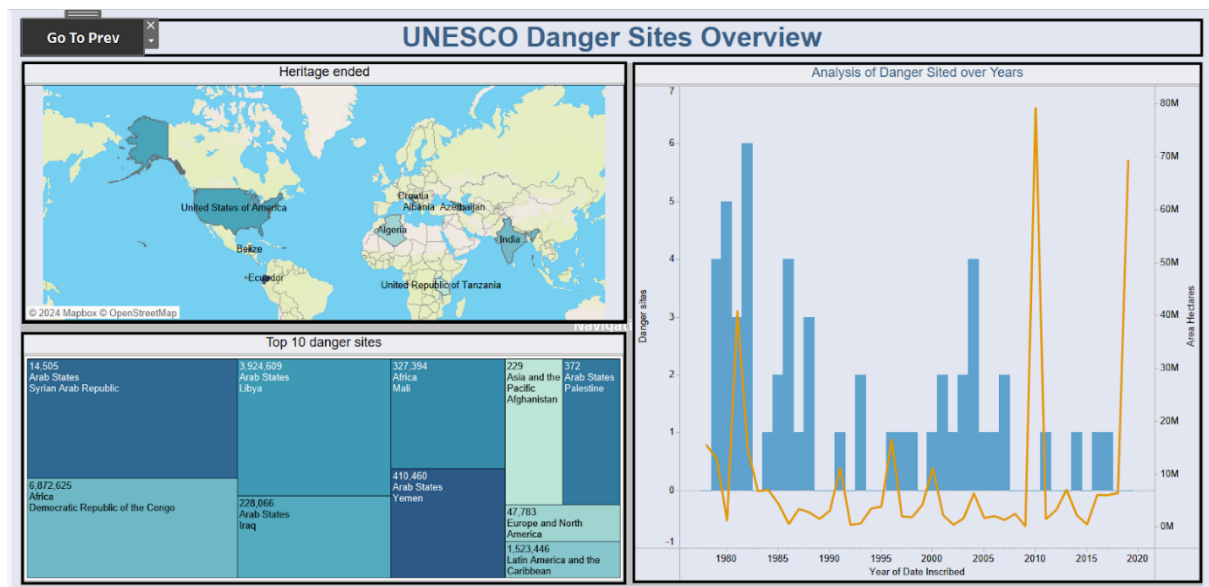**Link: https://drive.google.com/file/d/1wjQb6BoHlfT3wyKEEBcMeSTBEzoHAmjk/view?usp=sharing**

UNESCO World Heritage Sites Overview

Dashboard 2:

Duration: 1 Hrs

Skill Tags:

Dashboard 2:
Link: https://drive.google.com/file/d/1PS7vZLeCV52n7hruFeN1IAHBJ8fTssUr/view?usp=sharing

UNESCO Danger Sites Overview

Story

A data story is a way of presenting data and analysis in a narrative format, with the goal of making the information more engaging and easier to understand. A data story typically includes a clear introduction that sets the stage and explains the context for the data, a body that presents the data and analysis in a logical and systematic way, and a conclusion that summarizes the key findings and highlights their implications. Data stories can be told using a variety of mediums, such as reports, presentations, interactive visualizations, and videos.

No of Scenes of Story
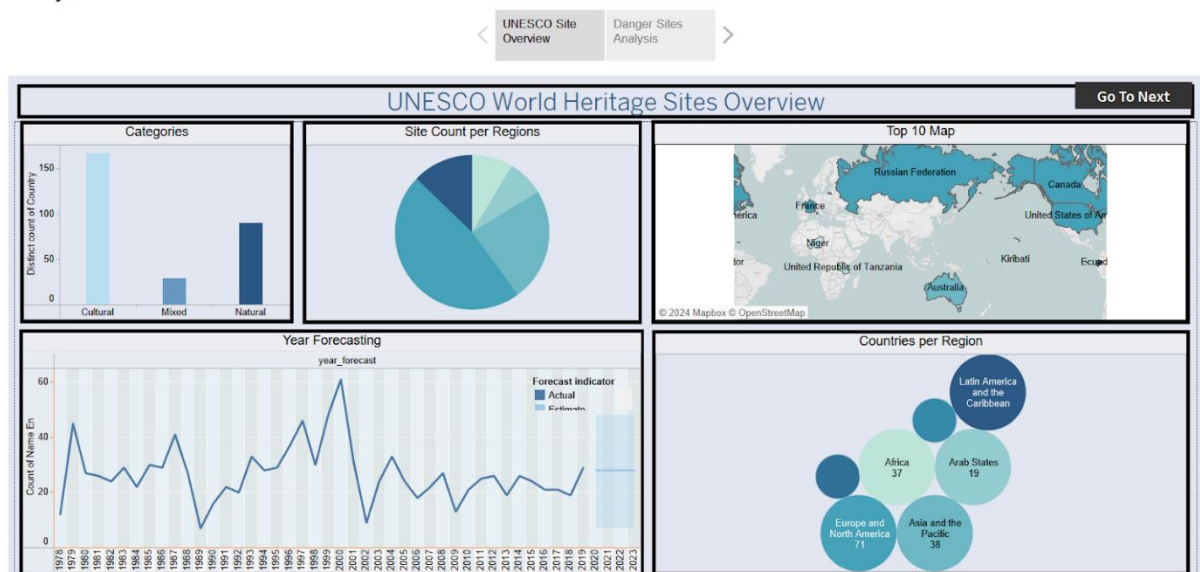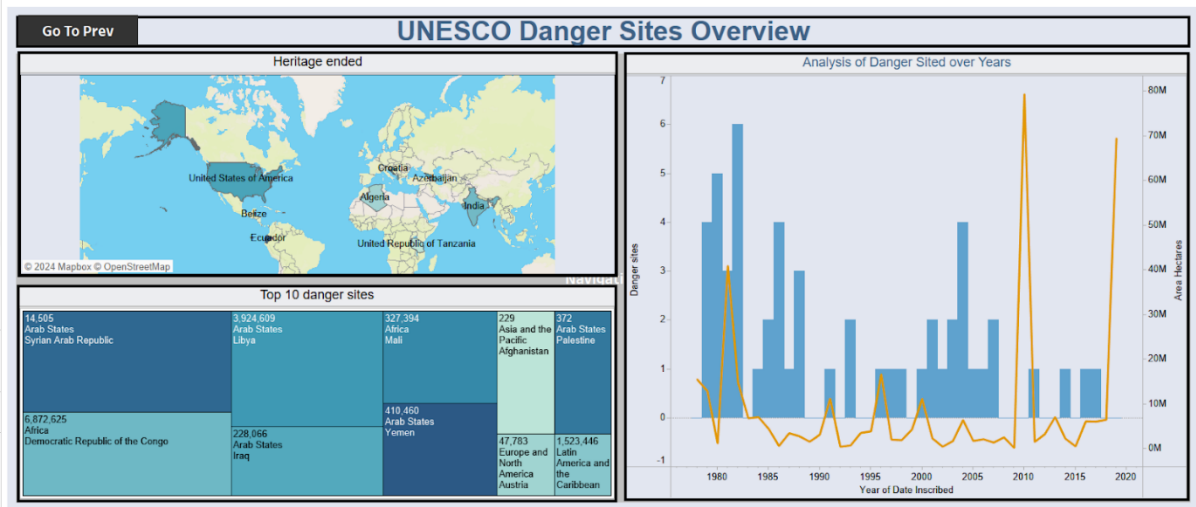
Duration: 1 Hrs

Skill Tags:

No of Scenes of Story

https://drive.google.com/file/d/1Y-iJ6gEo3B9TWWrGIZhxA_yWScEnSBdj/view?usp=sharing

Story 1

< UNESCO Site Overview | Danger Sites Analysis | >

Go To Prev | **UNESCO Danger Sites Overview**

Heritage ended

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Navigate

Analysis of Danger Sited over Years

Top 10 danger sites

14,505 Arab States Syrian Arab Republic	3,924,609 Arab States Libya	327,394 Africa Mali	229 Asia and the Pacific Afghanistan	372 Arab States Palestine
6,872,625 Africa Democratic Republic of the Congo	228,066 Arab States Iraq	410,460 Arab States Yemen	47,783 Europe and North America Austria	1,523,446 Latin America and the Caribbean

Performance Testing

Amount of Data Loaded

"Amount of Data Loaded" refers to the quantity or volume of data that has been imported, retrieved, or loaded into a system, software application, database, or any other data storage or processing environment. It's a measure of how much data has been successfully processed and made available for analysis, manipulation, or use within the system.

Fields

Type	Field Name	Physical Table	Remote Field Name
Abc	Category	sites inscribed properties XLS	category
⊕	Country	sites inscribed properties XLS	states_name_en
⊕	Region En	sites inscribed properties XLS	region_en
#	Unique Number	sites inscribed properties XLS	unique_number
#	Id No	sites inscribed properties XLS	id_no
Abc	Rev Bis	sites inscribed properties XLS	rev_bis
Abc	Name En	sites inscribed properties XLS	name_en
Abc	Short Description En	sites inscribed properties XLS	short_description_en
Abc	Justification En	sites inscribed properties XLS	justification_en
🗓	Date Inscribed	sites inscribed properties XLS	date_inscribed
Abc	Secondary Dates	sites inscribed properties XLS	secondary_dates
#	Danger	sites inscribed properties XLS	danger
=#	Danger sites	Calculation	Calculation_2525956472081383427

Fields

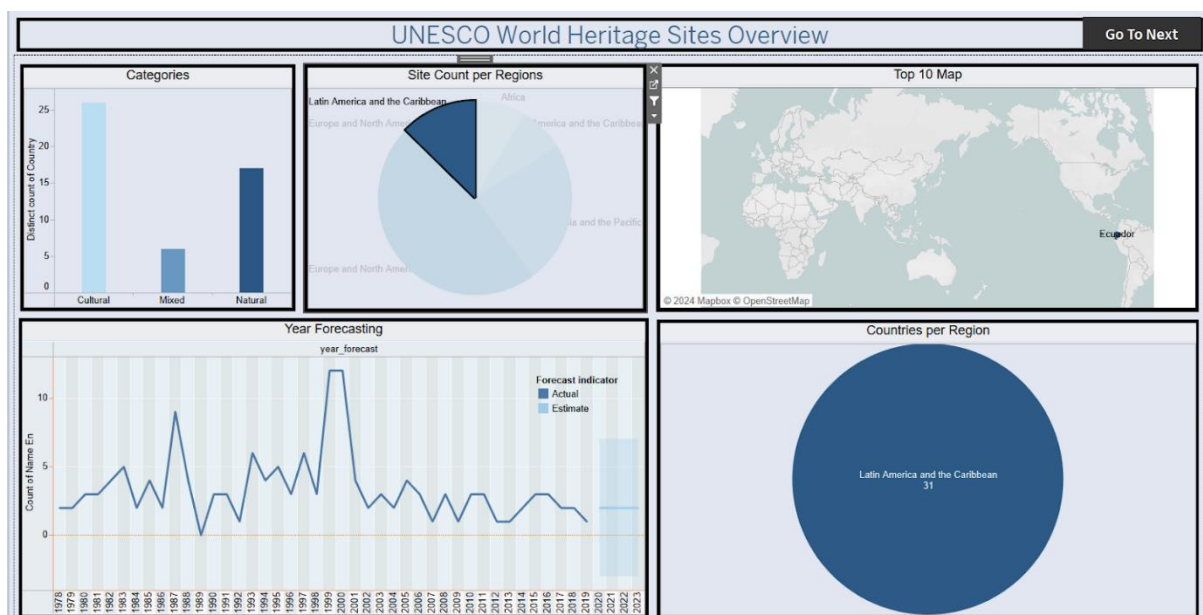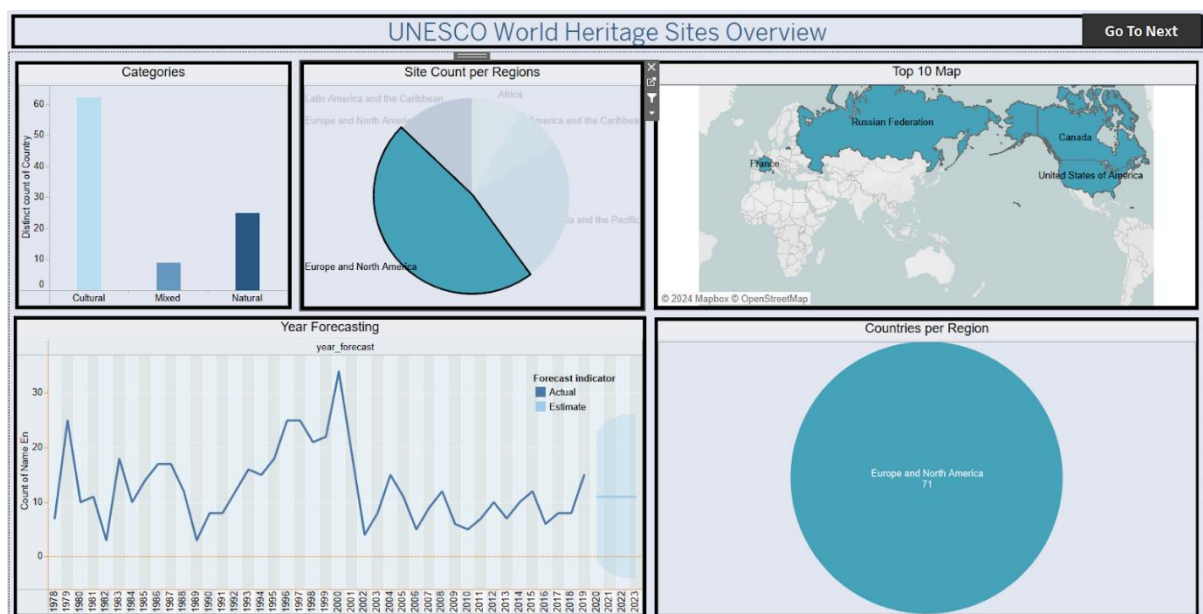| Type	Field Name	Physical Table	Remote Field Name
🗓	Date End	sites inscribed properties XLS	date_end
=T|F	Calculation1	Calculation	Calculation_2525956472255877134
Abc	Danger List	sites inscribed properties XLS	danger_list
⊕	Longitude	sites inscribed properties XLS	longitude
⊕	Latitude	sites inscribed properties XLS	latitude
#	Area Hectares	sites inscribed properties XLS	area_hectares
Abc	Criteria Txt	sites inscribed properties XLS	criteria_txt
Abc	Category Short	sites inscribed properties XLS	category_short
Abc	Iso Code	sites inscribed properties XLS	iso_code
Abc	Udnp Code	sites inscribed properties XLS	udnp_code
#	Transboundary	sites inscribed properties XLS	transboundary
=🗓	year_forecast	Calculation	Calculation_2525956472123355148
ılı.	Area Hectares (bin)	Bin	Area Hectares (bin)

Utilization of Data Filters

Duration: 1 Hrs

Skill Tags:

"Utilization of Filters" refers to the application or use of filters within a system,software application, or data processing pipeline to selectively extract, manipulate, oranalyze data based on specified criteria or conditions

Activity 2.1: Selected "Latin America" as a filter.

Activity 2.2:Selected "Europe and North America'' as a filter

No of Visualizations/ Graphs

Duration: 0.5 Hrs

Skill Tags:

Top 10 regions by area

- Countries per Regions

- Sites Count per Region

- Analysis of Danger sites and Areas

- Heritage ended Regions

- Year Forecasting

- Categories by site count

- Top 10 danger sites

Web integration

Publishing helps us to track and progress. help a publisher stay informed, make better decisions, and communicate their performance to Publishing helps us to track and monitor key performance metrics, to communicate results others. Publishing dashboard and reports to tableau public

Go to Dashboard/story, click on share button on the top ribbon

Duration: 1 Hrs

Skill Tags:

Note:This process is also explained in the flask part mentioned below

Give the server address of your tableau public account and click on connect.

Step 2: Once you click on connect it will ask you for tableau public user name and password.

Once you login into your tableau public using the credentials, the particular visualization will be published into tableau public.
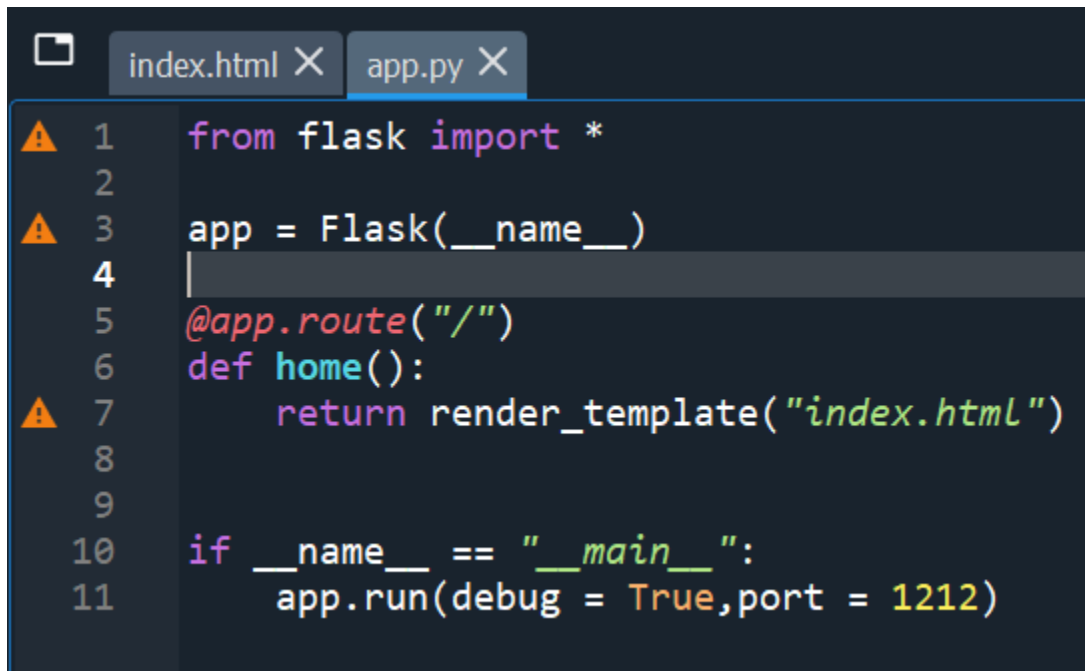
Note: While publishing the visualization to the public, the respective sheet will get published when you click on share option.

Dashboard and Story embed with UI With Flask

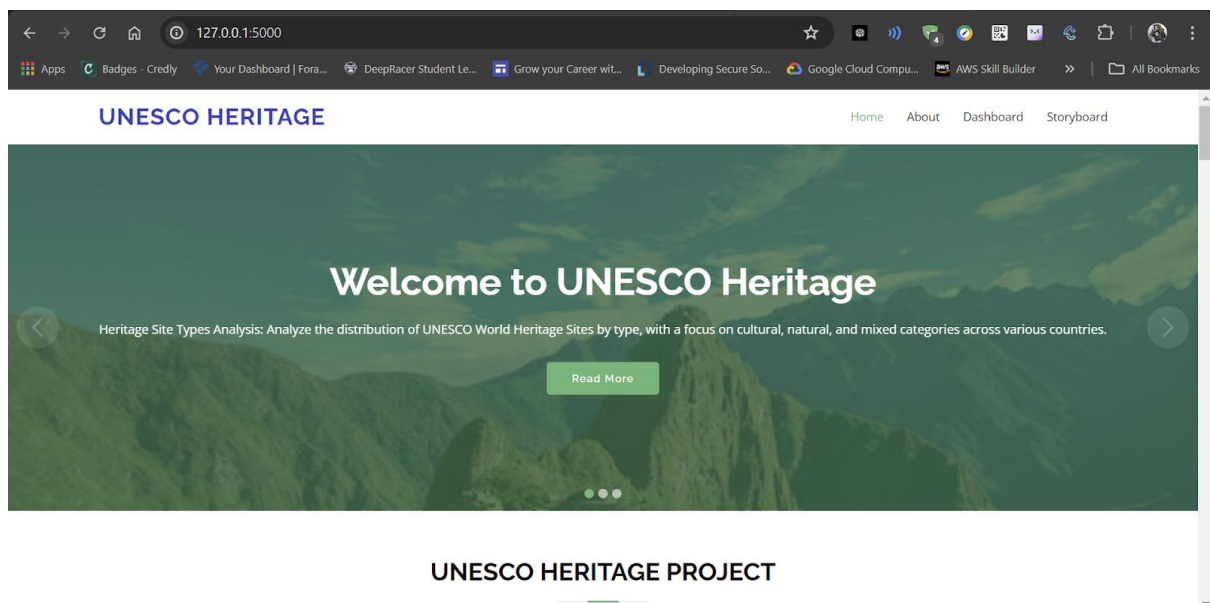Duration: 1 Hrs

Skill Tags:

Explanation video link:TableauFlask.mp4

```python
from flask import *

app = Flask(__name__)

@app.route("/")
def home():
    return render_template("index.html")


if __name__ == "__main__":
    app.run(debug = True,port = 1212)
```

UNESCO HERITAGE PROJECT

The UNESCO Heritage Project is dedicated to identifying, protecting, and preserving cultural and natural heritage around the world. Established in 1972, our project aims to promote international collaboration and provide support for the conservation of World Heritage sites.

The project covers a diverse range of sites, including ancient monuments, natural parks, historic cities, and intangible cultural heritage. Our efforts are guided by the principles of sustainable development, ensuring that the preservation of heritage sites contributes to the well-being of surrounding communities.

Our mission is to safeguard the world's cultural and natural treasures for future generations. We work closely with governments, local communities, and various organizations to ensure that these sites are maintained and protected in accordance with the highest standards.

Join us in our mission to preserve the world's heritage. Together, we can ensure that the beauty, history, and cultural significance of these sites continue to inspire and educate future generations.

CONTACT

We value your feedback inquiries and collaboration opportunities as we shape the future of education in the region Whether youre an educator a policymaker or simply curious about our work we invite you to get in...

Location:

Email:
visits@unesco.org

Call:
+33 (0)1 45 68 10 00

Your Name

Your Email

Subject

Message

Send Message

UNESCO Heritage

Building peace in the minds of men and women.

UNESCO Danger Sites Overview

Heritage ended

Top 10 danger sites

Analysis of Danger Sited over Years