Measuring the pulse of Prosperity: An Index of Economic Freedom Analysis

1. INTRODUCTION

1.1 Project Overview

"Measuring the pulse of prosperity : An index of economic freedom analysis case Study" is a data visualization project focused on analyzing the economic trends, relationships between various aspects, and score ranks globally. It leverages Tableau to create interactive dashboards and stories, aiming to support and analyse the current scenarios.

Purpose

The purpose of this project is to analyze and visualize the economic freedom indicators of countries around the world by using the 2022 economic score of freedom.

The interactive dashboards are designed to support data-driven decision-making, allowing users to filter, explore, and interpret the data dynamically for educational, policy-making, or investment purposes.

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2. IDEATION PHASE

2.1 Problem Statement

Despite the availability of comprehensive economic datasets like the *Index of Economic Freedom*, policymakers, educators, and analysts often face challenges in quickly interpreting complex global economic data due to its volume, format, and lack of visual context.

2.2 Empathy Map Canvas

Think: "How do I compare performances across countries?" *Feel:* Frustrated with large spreadsheets. *Say:* "I need an easier way to interpret." Do: Manually scroll through all static CSV files.

2.2 Brainstorming

- Use Tableau for data visualization
- Collect and clean economic trends data
- Create real-time dashboards
- Enable predictive analytics
- Address the outcomes and relationships

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3. REQUIREMENT ANALYSIS

3.1 Customer Journey map

User logs various economic data → Data processed → Visualized in Tableau → Insights generated → Trends and relationships analysed

3.2 Solution Requirement

- Dataset with Population trends, GDP growth, Inflation and unemployment rates

- Tableau Desktop/Public
- Web integration with Flask (optional)

3.3 Data Flow Diagram

Data Collection → Data Cleaning → Tableau Visualization → Dashboard/Story → Insights/Decisions

3.4 Technology Stack

- Tableau
- Python (Flask for web)
- Google Drive/CSV for data storage

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4. PROJECT DESIGN

4.1 Problem Solution Fit

The proposed dashboard addresses the lack of visibility into clear understanding of economic indicators by transforming raw data into usable insights.

4.2 Proposed Solution

Interactive Tableau dashboards showing metrics like population,Monetary freedom, Unemployment, and inflation causes.

4.3 Solution Architecture

CSV Dataset → Tableau (data import) → Clean/Prepare Data → Create Visualizations → Assemble Dashboard/Story → Publish to Tableau Public

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5. PROJECT PLANNING & SCHEDULING

5.1 Project Planning

- Week 1: Dataset Collection & Cleaning
- Week 2: Tableau Setup & Initial Charts
- Week 3: Dashboard Design
- Week 4: Story Creation & Publishing
- Week 5: Report Writing & Demo Recording

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6. FUNCTIONAL AND PERFORMANCE TESTING

6.1 Performance Testing

- Number of visualizations: 10+ unique charts
- Filters: population, monetary freedom, inflation, Income, etc.
- Real-time responsiveness tested

- Calculation fields: unemployment totals, averages, 2022 economic score.

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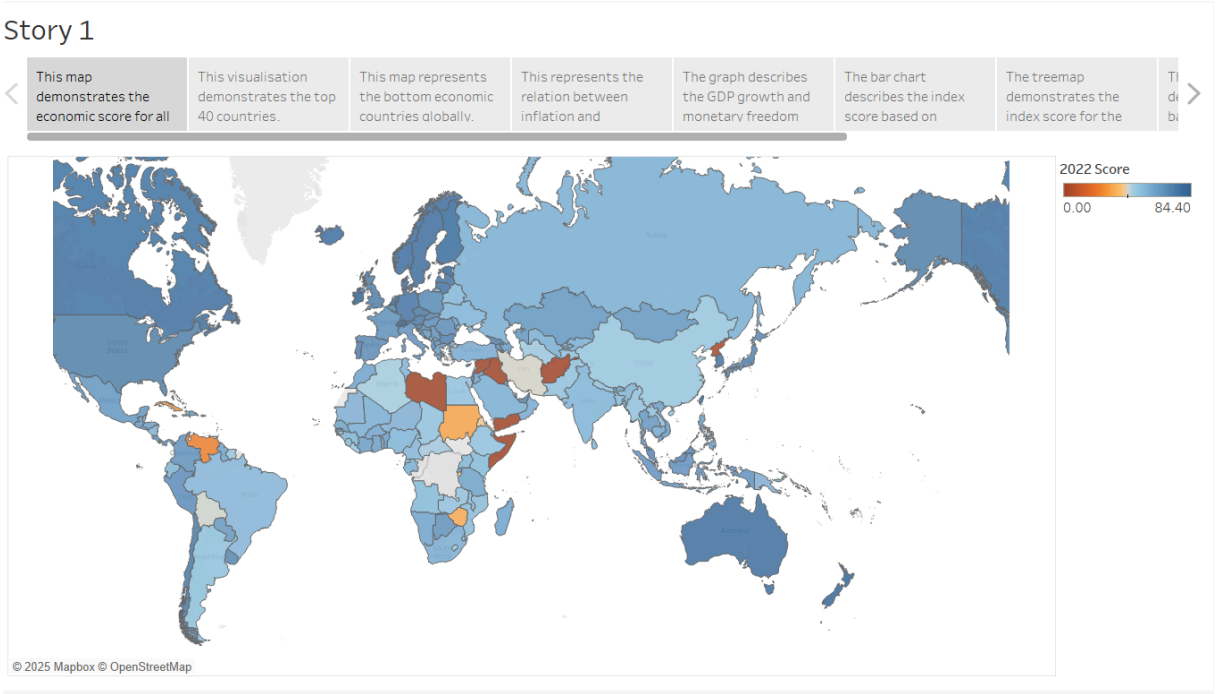
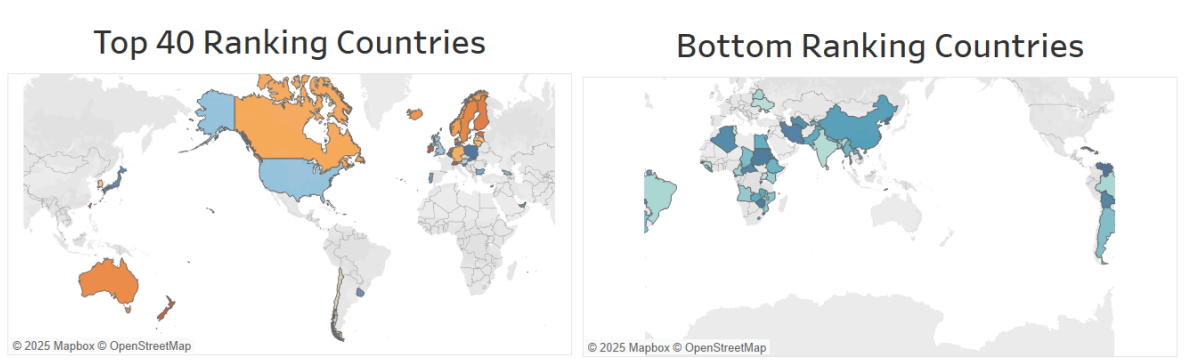
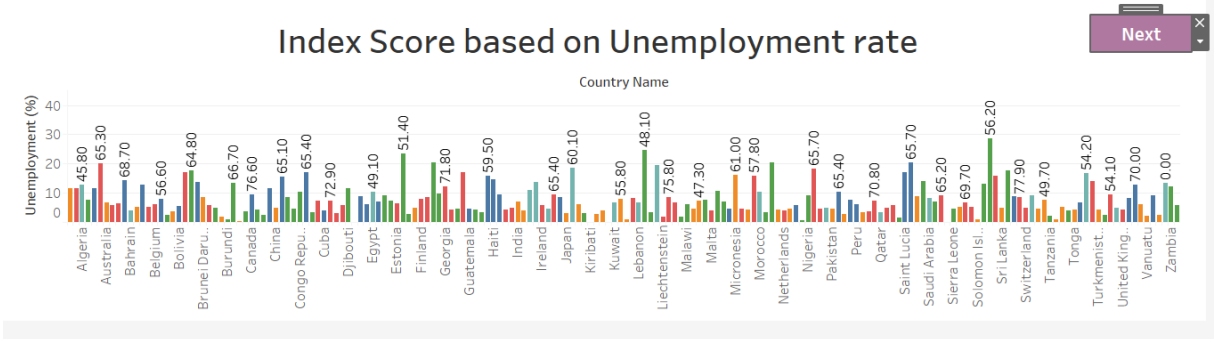
7. RESULTS

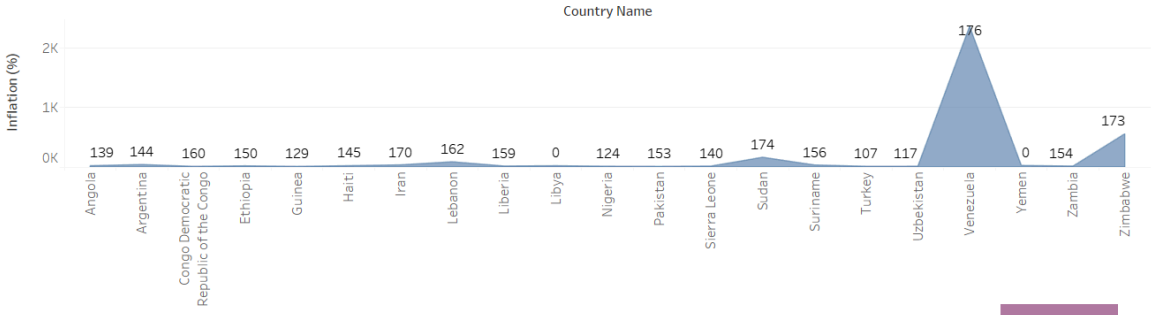
7.1 Output Screenshots







Inflation rate in Different countries



Index score based on 5 year GDP growth rate

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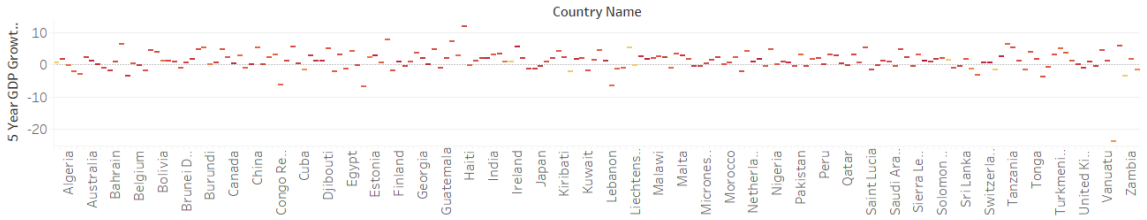
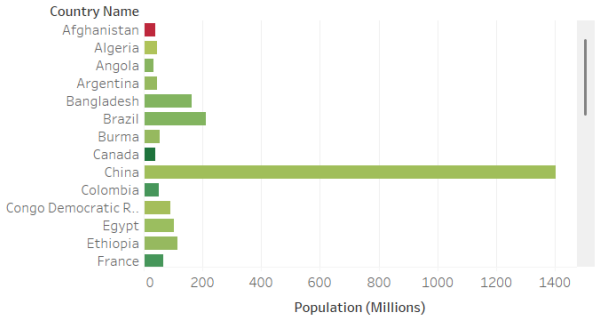
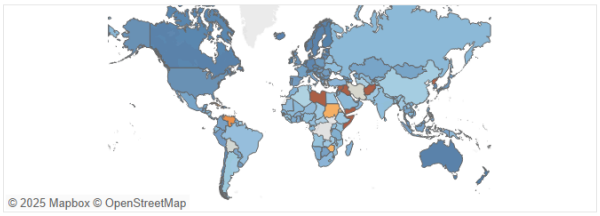


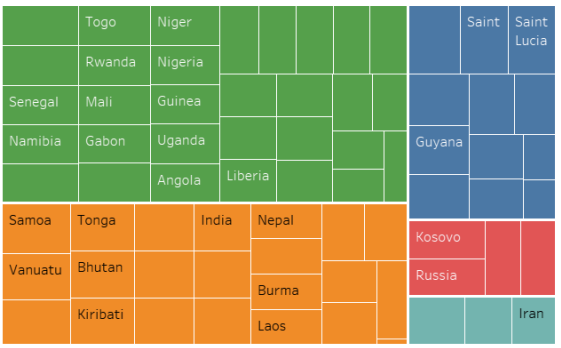
Index Score based on Population



2022 Economic Freedom Score



Index Score based on Financial Freedom



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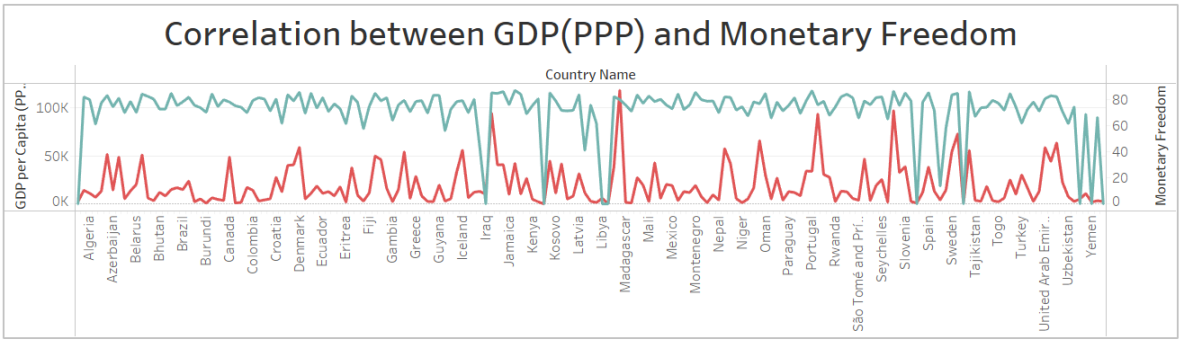

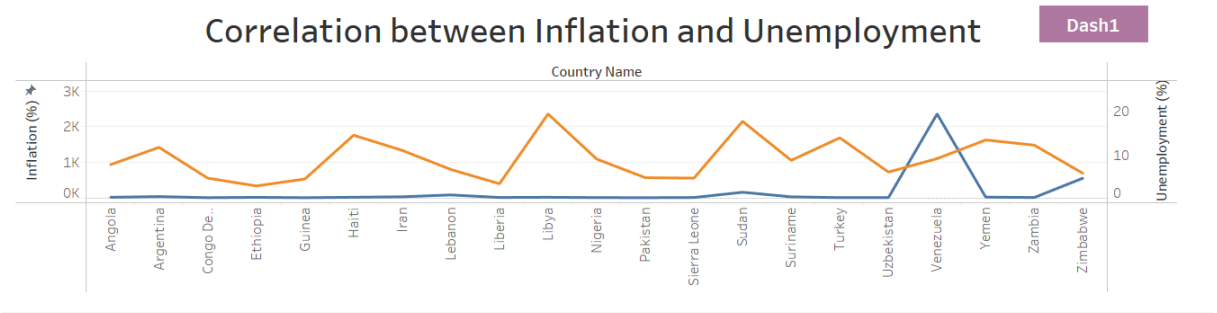

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8. ADVANTAGES & DISADVANTAGES

Advantages:

- Visual clarity
- Real-time insight generation
- Interactive filtering

Disadvantages:

- Requires cleaned data
- Tableau Public has feature limits

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9. CONCLUSION

This project effectively uses Tableau to identify trends for various economic activities and promotes better understanding of relationships of countries through data-driven strategies. Institutions can leverage this to create awareness and make it easier to interpret data.

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10. FUTURE SCOPE

- Integrate with real-time analysis of huge static files
- Include more easier evaluation of the data
- Mobile-compatible dashboards

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11. APPENDIX

Source Code (if any): Flask code for dashboard embedding (not included here)

App.py

```
from flask import *


app = Flask(_name_)


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


if _name___== "_main_":
    app.run(debug=True, port=1212)
```

index.html

```
<!DOCTYPE html>
<html>
<head>
<title>College Food Choices Case Study</title>
</head>
<body style="text-align:center; font-family:sans-serif;">


<h1 style="color:rgb(0, 42, 255);">MEASURING THE PULSE OF
PROSPERITY</h1>


<!-- Embed Tableau Dashboard -->
<iframe
src="https://public.tableau.com/app/profile/deepa.manasa.yerra/viz/sma
rtbridge-apsche/Story1"
width="1000" height="800">
</iframe>

</body>
</html>
```

Dataset Link:
https://drive.google.com/file/d/1EBIa1LtM3Ni2Uh3nekLB6wt3263Q3NeX/view?usp=share_link

GitHub & Project Demo Link: https://github.com/deepa-manasa/The-pulse-of-prosperity

Tableau Public Story Link:
https://public.tableau.com/app/profile/deepa.manasa.yerra/viz/smartbridge-apsche/Story1