Project Report

Project id: LTVIP2025TMID50685

Project name: Measuring the Pulse of Prosperity: An Index of Economic Freedom Analysis

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1. INTRODUCTION

1.1 Project Overview: Measuring the Pulse of Prosperity – An Index of Economic Freedom Analysis

This project aims to analyze the economic freedom of countries using data from the Heritage Foundation's Index of Economic Freedom. It involves collecting, processing, visualizing, and publishing insights derived from various economic indicators such as GDP, inflation, financial freedom, and unemployment.

Objectives:

- Classify countries based on economic freedom scores.
- Identify top and bottom-performing nations.
- Analyze correlations between economic indicators like inflation, unemployment, and growth.
- Build a data-driven dashboard and story for public and policy consumption.

Key Activities:

1. Data Collection: Heritage.org, CSV/Excel files, databases.
2. Data Preprocessing: Cleaning, normalization, metadata generation.
3. Data Analysis: Calculation of economic scores, correlation analysis, ranking.
4. Visualization: Dashboards in Tableau for top 40 rankings, economic trends, and factor-based insights.
5. Storytelling: A narrative-driven story that explains the findings visually.
6. Publishing: Web integration using embedded Tableau visualizations.

Deliverables:

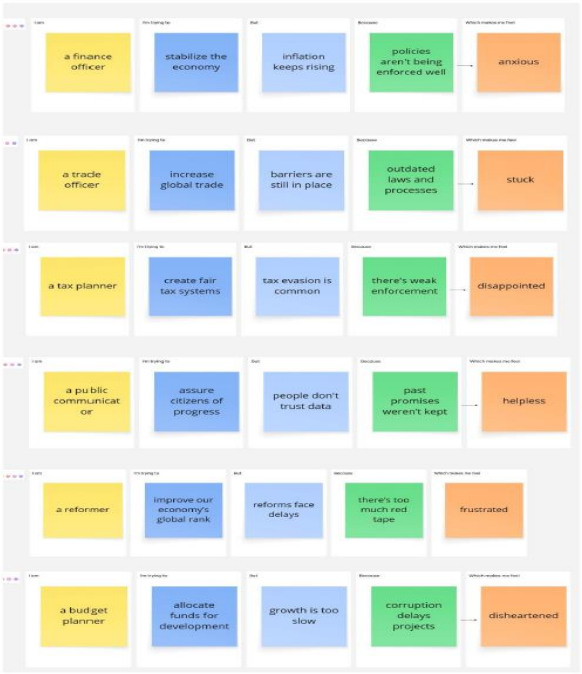
- Dynamic Tableau dashboard with filters and KPI metrics.
- Visual story showing trends in economic freedom and GDP.
- Sprint-based task breakdown with estimations and team assignments.
- Published report with user-friendly export options.

1.2 Purpose

The primary purpose of this project is to conduct an in-depth analysis of global economic freedom using structured data from the Index of Economic Freedom. This initiative aims to measure how economic policies, market openness, and regulatory efficiency influence a country's ability to foster growth, stability, and prosperity. By combining key economic indicators such as GDP growth, unemployment rate, inflation, and financial freedom, the project classifies countries into distinct freedom categories—Free, Mostly Free, Moderately Free, and Mostly Unfree—to simplify comparison and interpretation. The goal is to transform complex economic data into meaningful insights through interactive visualizations and dashboards, enabling policy makers, economists, business analysts, and the public to better understand the economic health of nations.

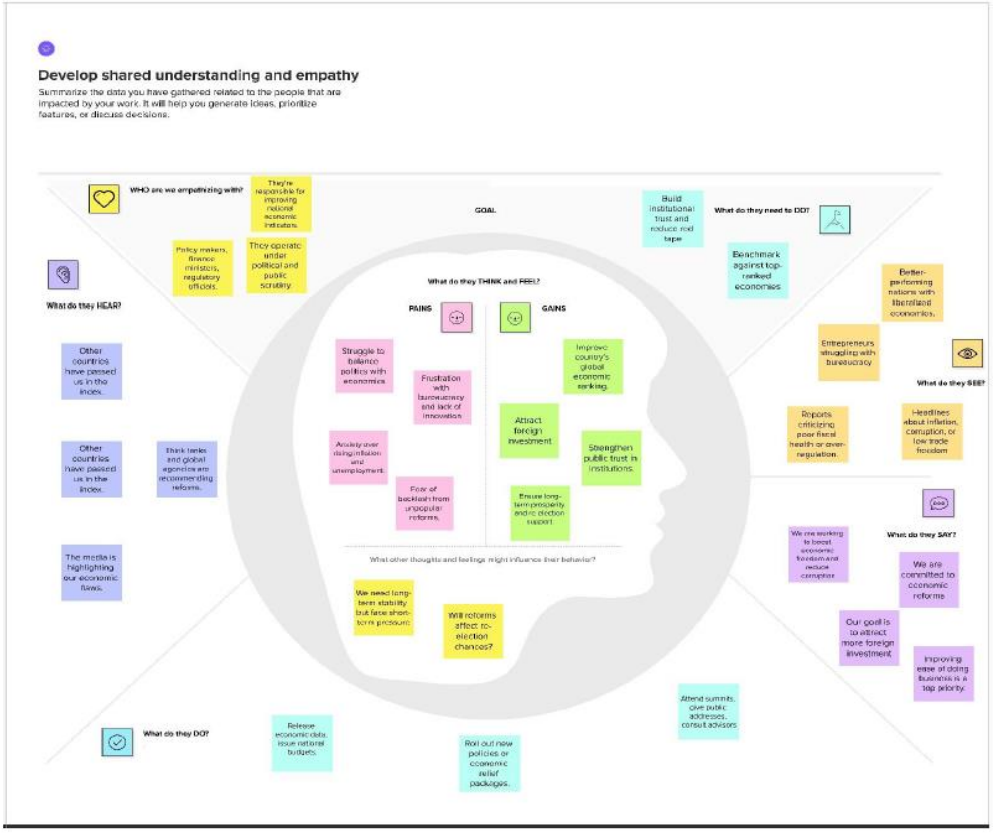
2. IDEATION PHASE

2.1 Problem Statement

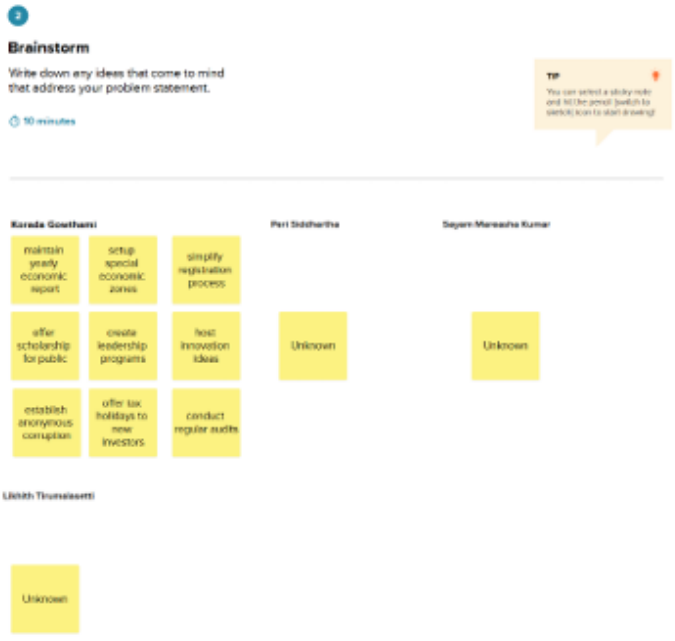


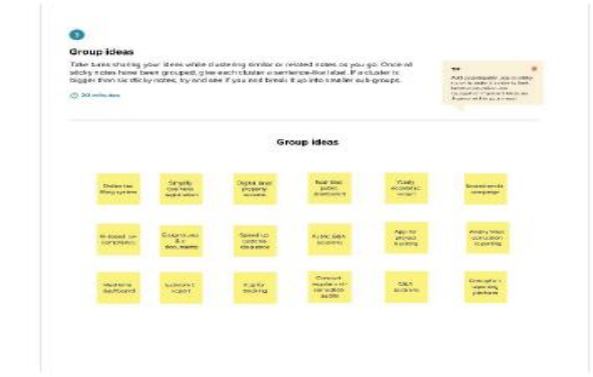
Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	An investor Promoter	An investor promoter	Investors are hesitant	We rank low in economic freedom	Under pressure
PS-2	A policy maker aiming to improve economic conditions	Boost my county`s economic freedom score	He reforms take time and face resistance	There is too much bureaucracy and fear of political backlash	Pressured and frustrated
PS-3	A government official focused on investment	Attract more foreign investors	We are not seen as investor friendly	Oue economic freedom is low and there`s corruption	Disappointed and under pressure
PS-4	A policy advisor	Suggest better regulations	Leaders resist change	They fear political backlash	powerless
PS-5	A finance officer	Stabilize the economy	Inflation keeps rising	Policies aren`t being enforced well	anxious
PS-6	A trade officer	Increase global trade	Barriers are still in place	Outdated laws and processes	Stuck
PS-7	A tax planner	Create fair tax systems	Tax evasion is common	There`s weak enforcement	Disappointed
PS-8	A public communicator	Assure citizens of progress	People don`t trust data	Past promises weren`t kept	Helpless
PS-9	A reformer	Improve our economy`s global rank	Reforms face delays	There`s too much red tape	Frustrated
PS-10	A budget planner	Allocate funds for development	Growth is too slow	Corruption delays projects	disheartened

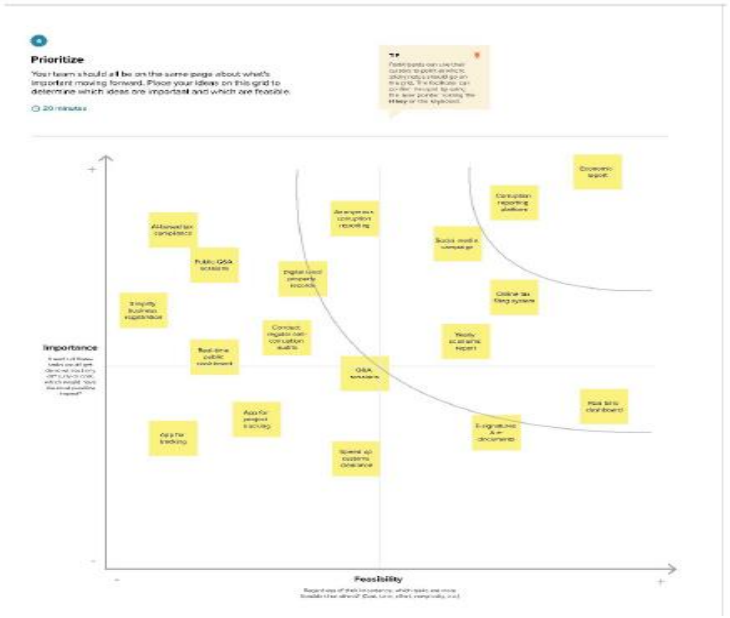
2.2 Empathy Map Canvas



2.3 Brainstorming

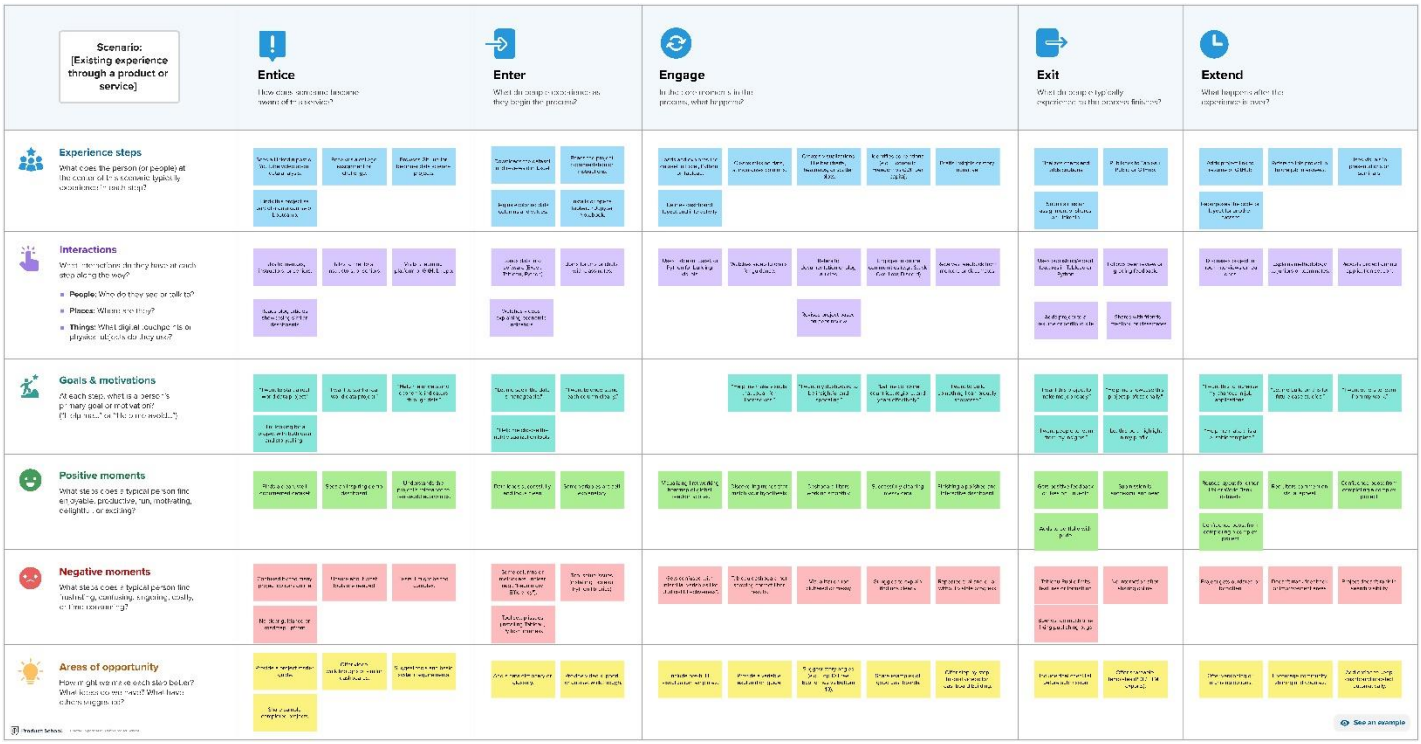






3. REQUIREMENT ANALYSIS

3.1 Customer Journey map



3.2 Solution Requirement

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Data collection	Collect the dataset or create the dataset
FR-2	Database /Spreadsheet Connection	Understand the dataset Import Dataset into the database Connect Tableau Desktop to Database server.
FR-3	Visualizing and analysing data	Understand the Data and the Business Questions Based on the Business questions develop the different visualizations
FR-4	Dashboard	Develop the Dashboard Build an interactive dashboard for comparing countries and regions Allow dynamic filtering by category, year, or indicator
FR-5	Story	Develop the Storyboard Add a visual data story summarizing key insights Highlight patterns, top countries, and interesting shifts in scores
FR-6	Publishing to the Tableau Public & Web Application Integration	Developed Visualizations, Dashboard and story will be published to Tableau Public Account. Once it is published, we will get the shareable links Develop a web application using HTML, CSS or Using Bootstrap Integrate the Visualizations, Dashboard and Story with the Web Application

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	The system should have an intuitive and accessible interface for non-technical users such as policy analysts and students. Clear visual design and tooltips should guide user actions.
NFR-2	Security	The platform should ensure secure handling of uploaded data using HTTPS encryption. User accounts (if implemented) must use secure login protocols.
NFR-3	Reliability	The system should consistently process, analyze, and display data without crashing. In case of failure, the system should recover the latest state.
NFR-4	Performance	Visualizations should load within 2–3 seconds for datasets of up to 200 countries. Data operations like filtering or scoring must respond instantly.
NFR-5	Availability	The solution should be accessible 24/7 with 99.9% uptime, ensuring minimal disruption during usage.
NFR-6	Scalability	The system should handle larger datasets (e.g., 10 years of data across 200+ countries) without performance degradation.
NFR-7	Maintainability	The backend codebase should be modular, clean, and well-documented for easy future updates or integration with new data sources.
NFR-8	Compatibility	The system should work seamlessly across all major web browsers (Chrome, Firefox, Safari) and be mobile responsive.
NFR-9	Exportability	Users must be able to export visualizations and filtered datasets in standard formats (PDF, Excel, PNG).

3.3 Data Flow Diagram

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

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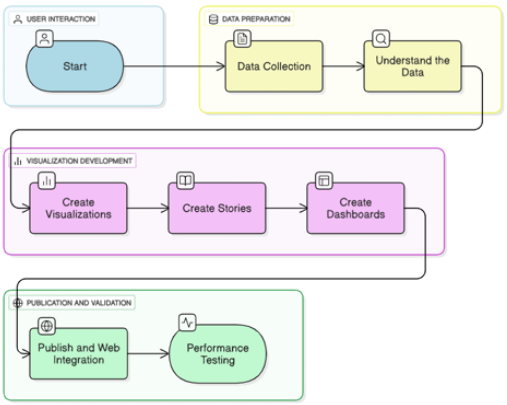
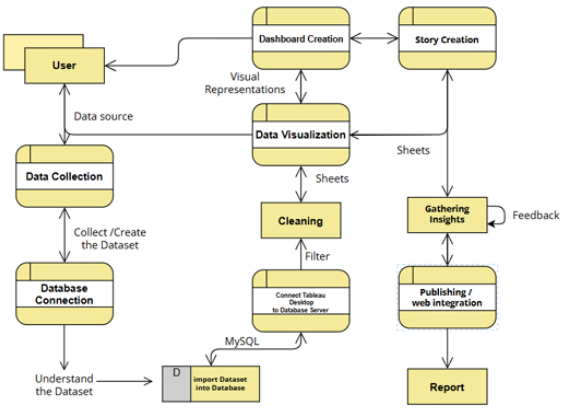
Example: (Simplified)

User Stories

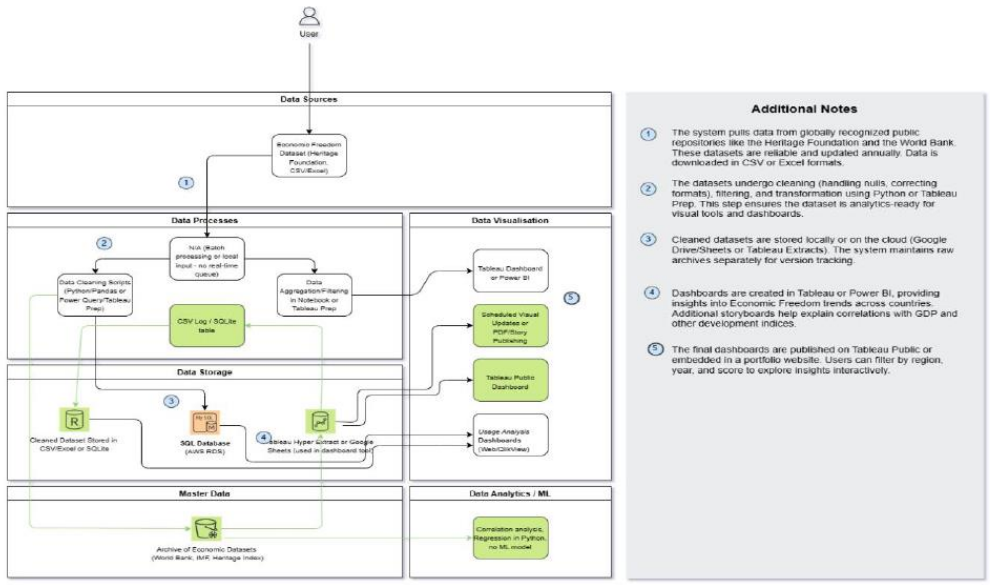




Example: Level 0 DFD

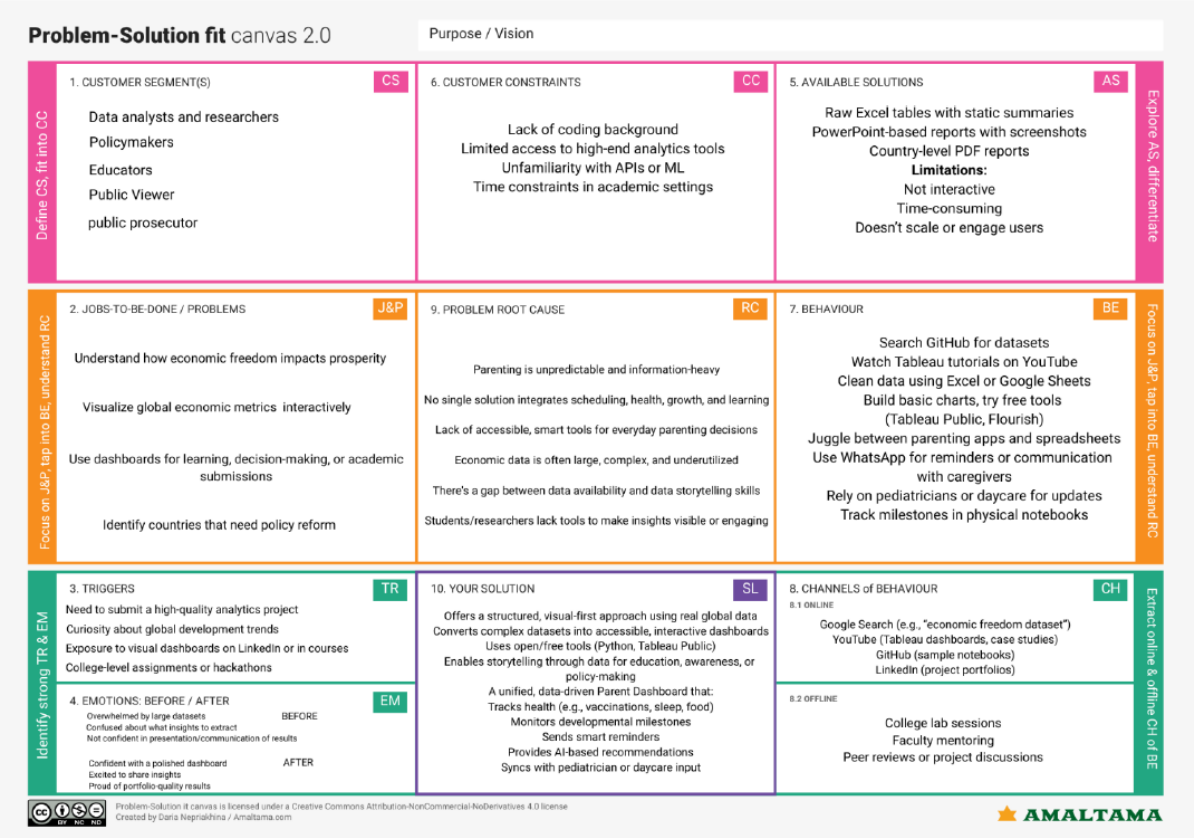
3.4 Technology Stack

Technical Architecture:



4. PROJECT DESIGN

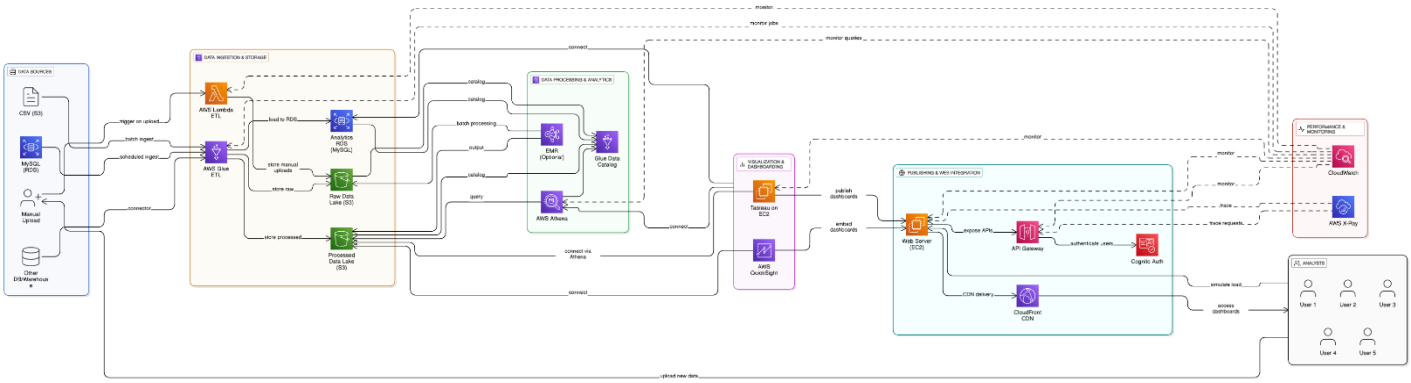
4.1 Problem Solution Fit



4.2 Proposed Solution

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Despite the availability of economic freedom data, most users (students, analysts, policymakers) lack the tools to explore, visualize, and understand how it correlates with national prosperity. The data exists but is difficult to access, interpret, or use for meaningful insights.
2.	Idea / Solution description	Develop an interactive dashboard using the Index of Economic Freedom dataset that enables users to explore global trends, compare countries, and analyze the impact of freedom scores on GDP per capita and related economic indicators. The solution uses Tableau and Python to clean, process, and visualize the data in a user-friendly format.
3.	Novelty / Uniqueness	Unlike static economic reports, this project offers an open, interactive, and visual-first platform. It uniquely combines multiple indicators (freedom, trade, property rights, GDP) into a dynamic tool with filters, storytelling, and region/year-based analysis — all accessible through Tableau Public.
4.	Social Impact / Customer Satisfaction	The solution improves public awareness of economic policy impacts, supports student research, and helps educators demonstrate real-world economics. It satisfies users by offering a clean, simple, yet insightful interface that translates complex data into actionable knowledge.
5.	Business Model (Revenue Model)	The dashboard can be offered for free to the public, while institutions can pay for premium reports or integrations. Revenue may also come from academic licensing or partnerships with research bodies.
6.	Scalability of the Solution	The solution can be expanded by adding more indicators, years, or countries. It can also be adapted to other platforms like Power BI or embedded into educational and policy websites.

4.3 Solution Architecture



This solution architecture represents a comprehensive data pipeline that begins with data acquisition from multiple structured and unstructured sources, followed by an ETL process that handles cleaning, validation, and metadata generation. The cleaned data is stored securely in a centralized data warehouse with access control and versioning. It then moves through a transformation layer where it is aggregated, enriched, and normalized for analysis. The processed data is visualized through

dashboards and custom visualizations using tools like Tableau, and is published via web integrations and APIs for stakeholder consumption. A feedback loop ensures continuous updates and data refreshes, enabling informed decision-making for diverse user personas such as economists, analysts, and policymakers.

5. PROJECT PLANNING & SCHEDULING

5.1 Project Planning

Product Backlog, Sprint Schedule, and Estimation (4 Marks)

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Data Collection	USN-1	Downloading The Dataset	1	High	Korada Gowthami
Sprint-1	Working With Dataset	USN-2	Understand The Data	3	High	Korada Gowthami
Sprint-1		USN-3	Import Dataset into Database and connect Tableau Desktop to Database server	2	Low	Korada Gowthami
Sprint-2	Data Visualization	USN-4	2022 Economic freedom score	2	High	Korada Gowthami
Sprint-2		USN-5	Top 40 ranking countries in the index	2	High	Korada Gowthami
Sprint-2		USN-6	Bottom ranking countries in the index	2	Medium	Korada Gowthami
Sprint-2		USN-7	Index score based on unemployment rate	3	High	Korada Gowthami
Sprint-2		USN-8	Index score based on financial freedom	3	High	Korada Gowthami
Sprint-2		USN-9	Index score based on population	2	High	Korada Gowthami
Sprint-2		USN-10	Index score based on 5 year on GDP growth rate(%)	2	High	Korada Gowthami
Sprint-2		USN-11	Inflation rate in different countries	2	Medium	Korada Gowthami
Sprint-2		USN-12	Correlation between inflation and unemployment	2	High	Korada Gowthami
Sprint-2		USN-13	Top 40 countries by GDP growth rate	3	High	Korada Gowthami
Sprint-2		USN-14	Correlation between GDP(PPP) and monetary freedom	2	High	Korada Gowthami
Sprint-3	Dashboard	USN-15	Creating The Dashboard	3	High	Korada Gowthami
Sprint-3	Story	USN-16	Creating The Story Board	3	High	Korada Gowthami
Sprint-3	Publishing and Web Integration	USN-17	Publishing dashboard and reports to tableau public	2	High	Korada Gowthami
Sprint-3		USN-18	Integrating with Web with Embed code	5	Low	Korada Gowthami
Sprint-4	Performance Testing	USN-19	Utilization of data filters	2	Medium	Korada Gowthami
Sprint-4		USN-20	Amount of data rendered into the database	2	Medium	Korada Gowthami

Project Tracker, Velocity & Burndown Chart: (4 Marks)

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	6	2 Days	19 Jun 2025	20 Jun 2025	6	19 Jun 2025
Sprint-2	21	2 Days	21 Jun 2025	22 Jun 2025	21	21 Jun 2025
Sprint-3	13	1 Days	22 Jun 2025	22 Jun 2025	13	22 Jun 2025
Sprint-4	4	1 Days	23 Jun 2025	23 Jun 2025	4	23 Jun 2025

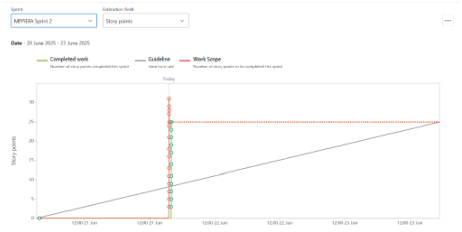
Velocity:

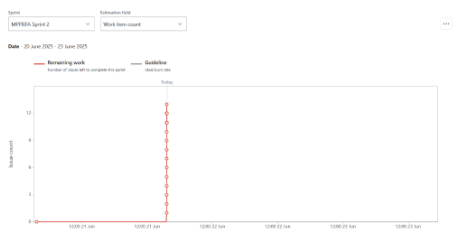
Velocity Table:

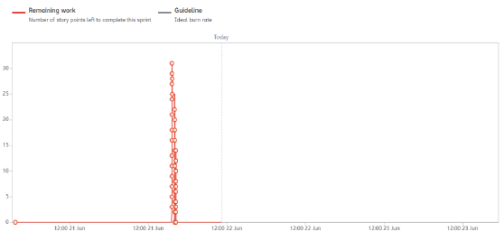
Sprint	Total Story Points	Duration (days)	Velocity (AV)
Sprint-1	1 + 3 + 2 = **6**	2 days	6 ÷ 2 = **3.0** pts/day
Sprint-2	21	2 days	21 ÷ 4 = 10.5 pts/day
Sprint-3	3 +3 + 2 + 5 =13	1 days	6 ÷ 2 = 13 pts/day
Sprint-4	2 + 2 = 4	1 days	7 ÷ 2 = 4 pts/day

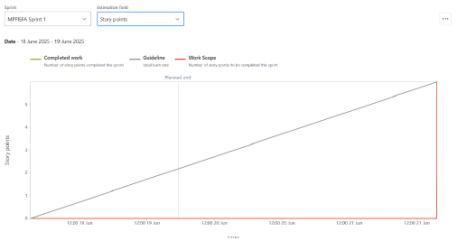
Burndown Chart:

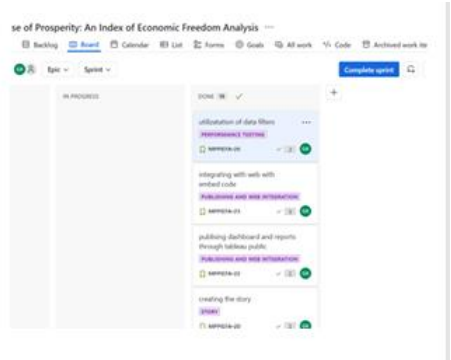
A burn down chart is a graphical representation of work left to do versus time. It is often used in agile software development methodologies such as Scrum. However, burn down charts can be applied to any project containing measurable progress over time.

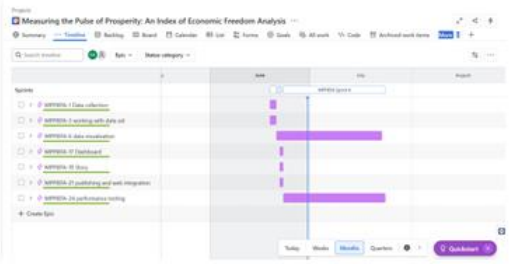


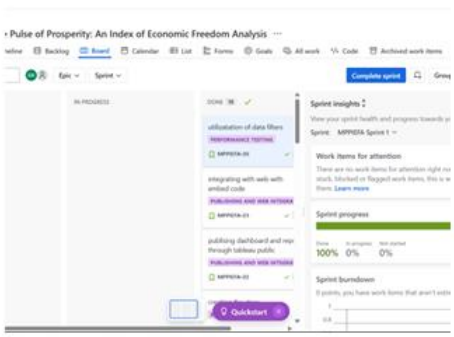










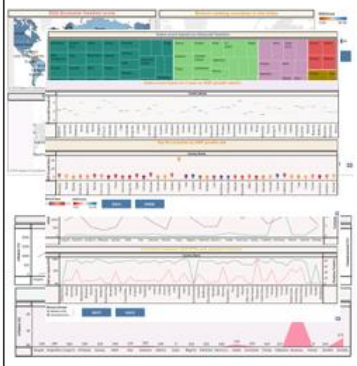


6. FUNCTIONAL AND PERFORMANCE TESTING

6.1 Performance Testing

S.No.	Parameter	Screenshot / Values
1.	Data Rendered	The dataset used in this project is based on the **Index of Economic Freedom**, primarily sourced from the **Heritage Foundation**, supplemented with data on GDP, unemployment, inflation, FDI, and public debt. It contains **177 rows**, each representing a country, and approximately **32 columns** capturing various economic and governance indicators. Key attributes in the dataset include: • **Country Name** and **Region** (e.g., Asia-Pacific, Europe, Sub-Saharan Africa) • **World Rank** and **Region Rank** • **2022 Economic Freedom Score** – the main index measuring economic liberty on a scale of 0 to 100. • **Property Rights, Judicial Effectiveness, Government Integrity** – used to assess the rule of law. • **Tax Burden, Government Spending, Fiscal Health** – used to measure government size and financial discipline. • **Business Freedom, Labor Freedom, Monetary Freedom** – showing regulatory efficiency. • **Trade Freedom, Investment Freedom, Financial Freedom** – assessing open markets. • **Economic Indicators:** 1. **Population (Millions)** 2. **GDP (Billions USD)** 3. **GDP Growth Rate (%)** 4. **GDP per Capita (PPP)** 5. **Unemployment Rate (%)** 6. **Inflation Rate (%)** 7. **Public Debt (% of GDP)** 8. **FDI Inflows (Millions USD)**
		
2.	Data Preprocessing	**1. Handling Missing and Invalid Values:** The dataset was thoroughly examined for missing, null, or zero values. Numerical fields such as GDP growth, inflation, and public debt were cleaned using mean or median imputation, while missing categorical fields were assigned neutral defaults such as "Unknown" or 0 where applicable. Completely unusable records were removed to maintain data quality. **2. Column Renaming and Standardization:** All column names were standardized for consistency and readability. For example, 2022 Score was renamed to freedom_score, and GDP (Billions) was converted to gdp_billion_usd. Inconsistent formats, such as percentage strings, were converted to numeric types. **3. Feature Engineering:** A new column called freedom_category was created to classify each country based on its economic freedom score. Using defined thresholds, countries were categorized as Free (≥ 80), Mostly Free (70–79.9), Moderately Free (60–69.9), or Mostly Unfree (< 60). Additional calculated fields were generated to support filtering and segmentation.
3.	Utilization of Filters	In the **Index of Economic Freedom** dashboard, multiple interactive filters were implemented to provide a dynamic, user-driven experience. These filters empower users such as policy makers, economists, and analysts to extract meaningful insights tailored to specific interests or regional contexts.

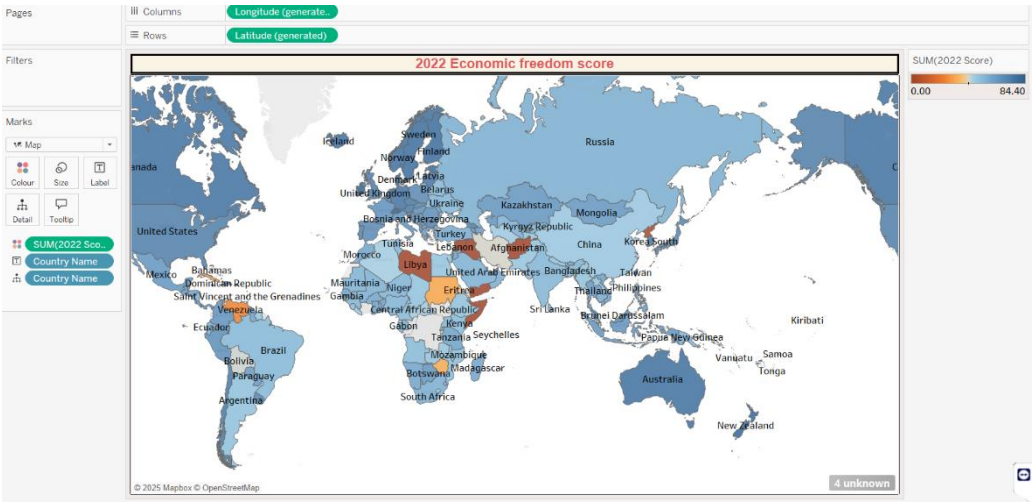
		2. GDP per Capita Filter Type: Slider or grouped range (Low/Medium/High) Field Used: GDP per Capita (PPP) Purpose: Filters countries based on economic prosperity levels. Use Case: Study if higher GDP per capita correlates with higher freedom scores. **3. Unemployment Rate Filter** • **Type:** Slider filter • **Field Used:** Unemployment (%) • **Purpose:** Helps analyze which freedom categories or regions are facing higher or lower employment challenges. • **Use Case:** Understand how economic freedom may impact job markets. **4. Inflation Rate Filter** • **Type:** Numeric range filter • **Field Used:** Inflation (%) • **Purpose:** Enables comparison of inflation control among countries with varying freedom scores. • **Use Case:** Reveal monetary policy strength across regions or freedom categories. **5. GDP Growth Rate Filter** • **Type:** Numeric slider • **Field Used:** GDP Growth Rate (%) • **Purpose:** Allows users to focus on fast-growing or struggling economies. • **Use Case:** Determine how freedom levels influence economic growth. **6. World/Region Rank Filter** • **Type:** Numeric range • **Fields Used:** World Rank, Region Rank • **Purpose:** Isolate top or bottom performers globally or regionally. • **Use Case:** Benchmark high performers or identify countries needing policy reform.
4.	Calculation fields Used	The freedom_category is a derived field that classifies countries into four groups—**Free, Mostly Free, Moderately Free**, and **Mostly Unfree**—based on their Economic Freedom Score. This categorization simplifies the analysis by grouping countries with similar economic conditions, helping users quickly compare economic performance, identify patterns, and focus on regions needing policy improvements.

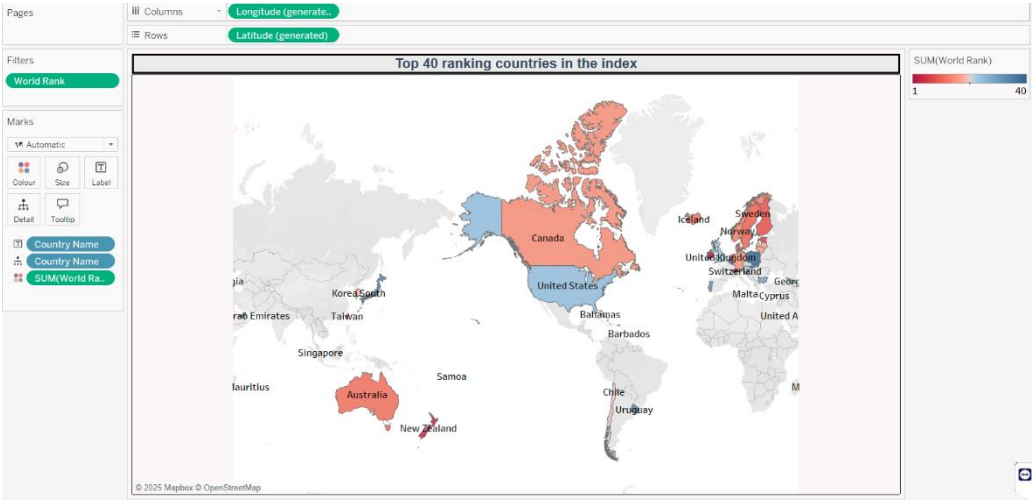
		
5.	Dashboard design	No of Visualizations / Graphs – 11 1. 2022 Economic Freedom Score 2. Top 40 Ranking Countries In The Index 3. Bottom Ranking Countries In The Index 4. Index Score Based On Unemployment Rate 5. Index Score Based On Financial Freedom 6. Index Score Based On Population 7. Index Score Based On 5 Year On GDP Growth Rate(%) 8. Inflation Rate In Different Countries 9. Correlation Between Inflation And Unemployment 10. Correlation Between GDP(PPP) And Monetary Freedom 11. 20Top 40 Countries By GDP Growth Rate 

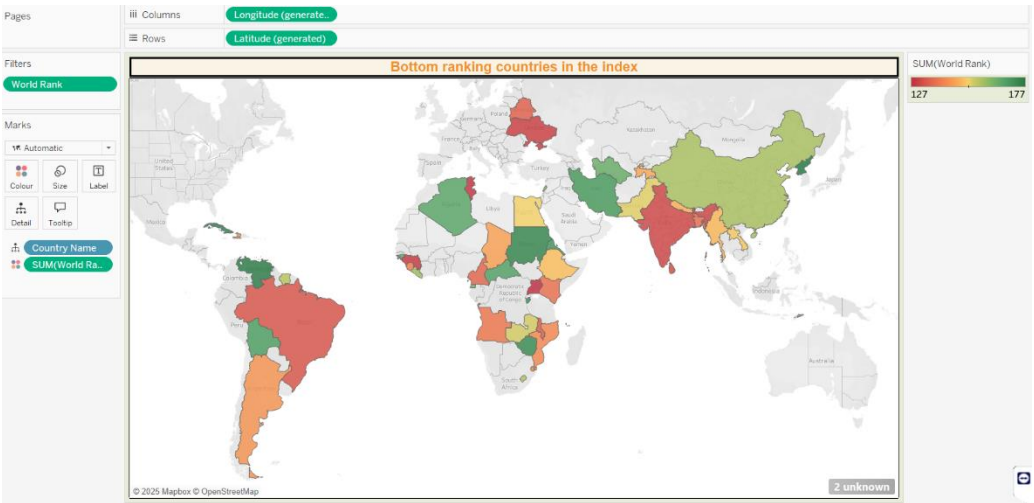
6	Story Design	No of Visualizations / Graphs -11 The story presents a structured view of global economic freedom using interactive visualizations. It starts with overall scores, followed by top/bottom rankings and key economic indicators like GDP, inflation, and unemployment. The narrative helps users draw insights through comparisons and correlations across countries. 

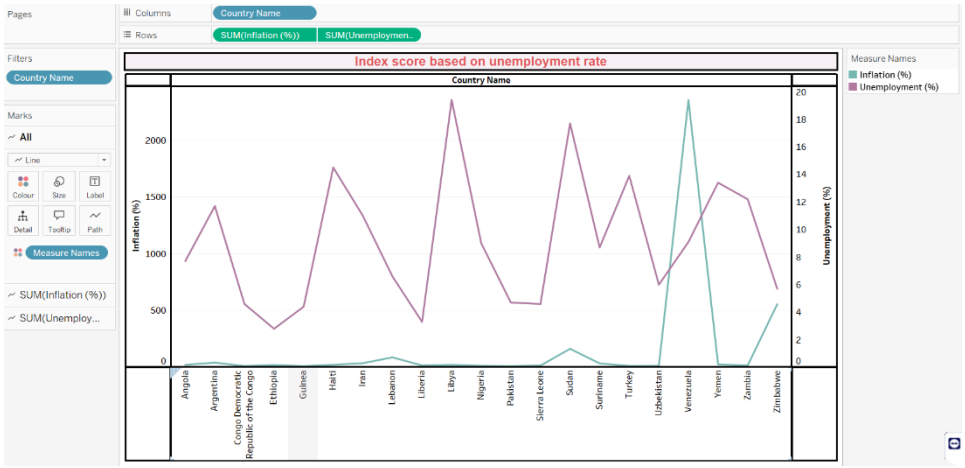
7. RESULTS

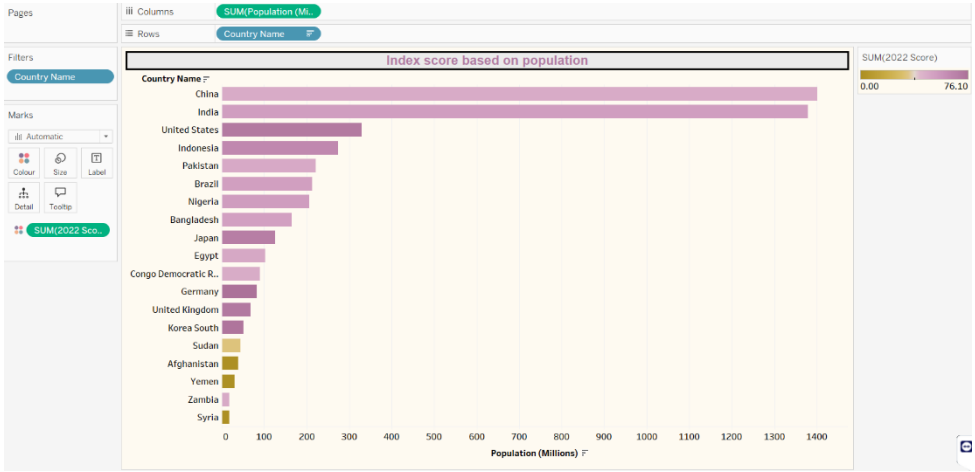
7.1 Output Screenshots

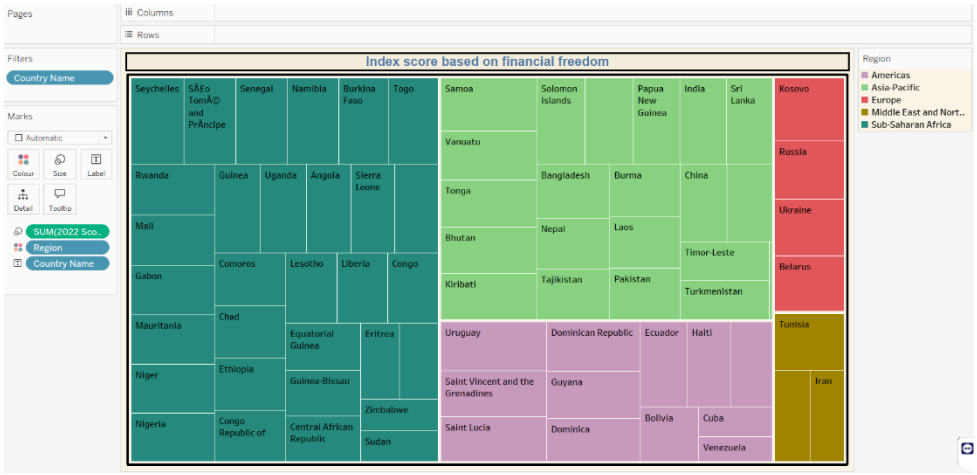


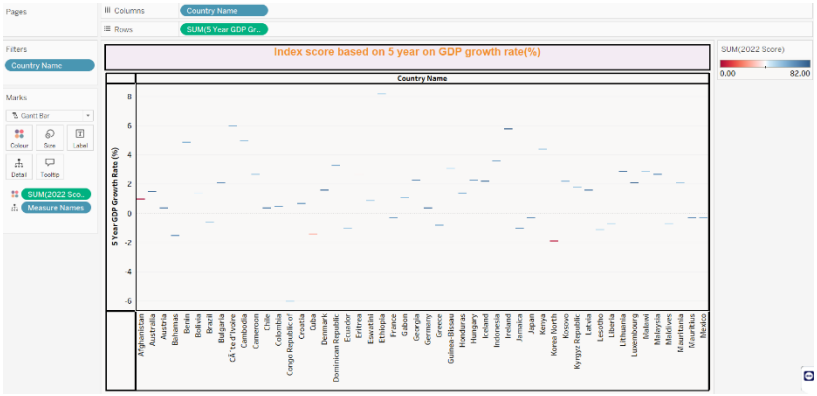




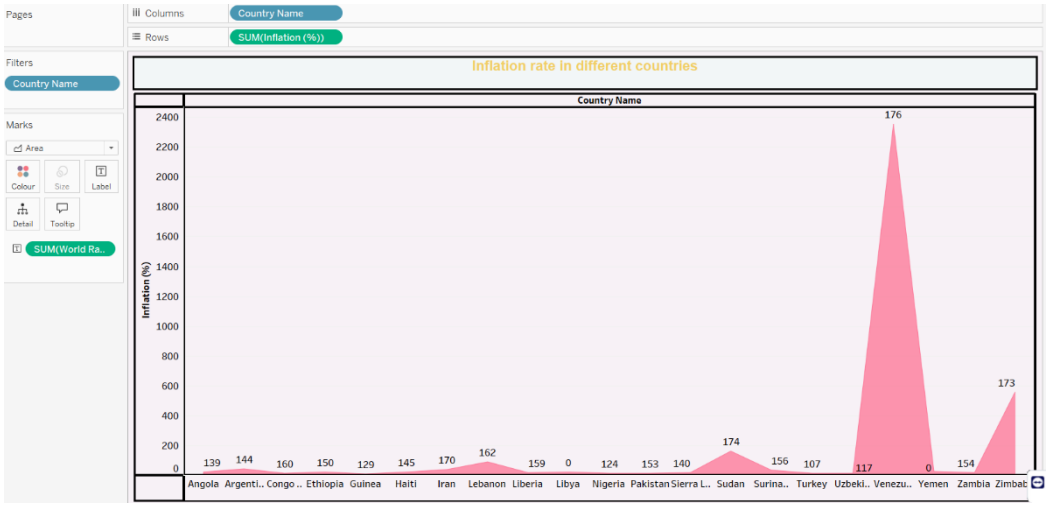

Index score based on unemployment rate
Country Name
Inflation (%)
Unemployment (%)
Angola
Argentina
Congo Democratic Republic of the Congo
Ethiopia
Guinea
Haiti
Iran
Lebanon
Liberia
Libya
Nigeria
Pakistan
Sierra Leone
Sudan
Suriname
Turkey
Uzbekistan
Venezuela
Yemen
Zambia
Zimbabwe

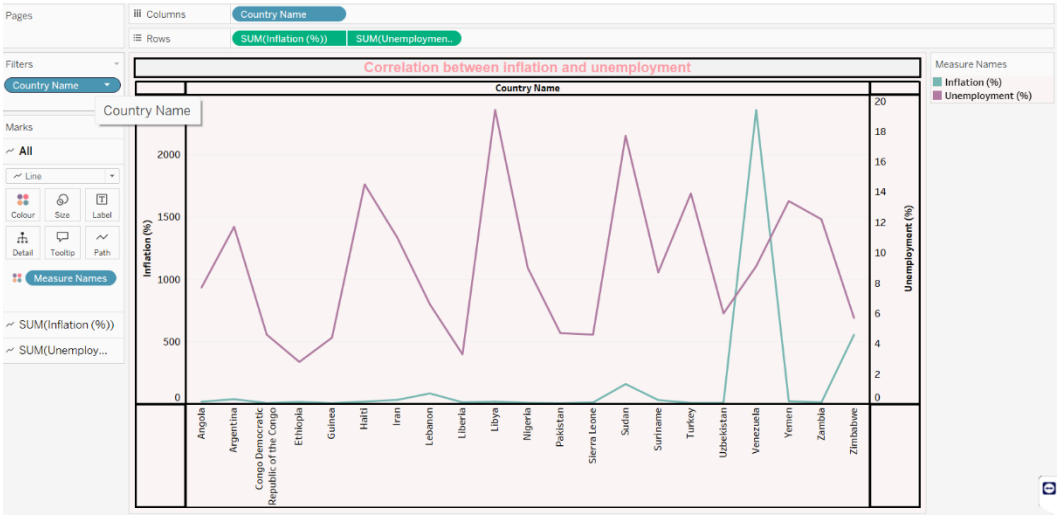

Index score based on population
Country Name
China
India
United States
Indonesia
Pakistan
Brazil
Nigeria
Bangladesh
Japan
Egypt
Congo Democratic R..
Germany
United Kingdom
Korea South
Sudan
Afghanistan
Yemen
Zambia
Syria
Population (Millions)
SUM(2022 Score)

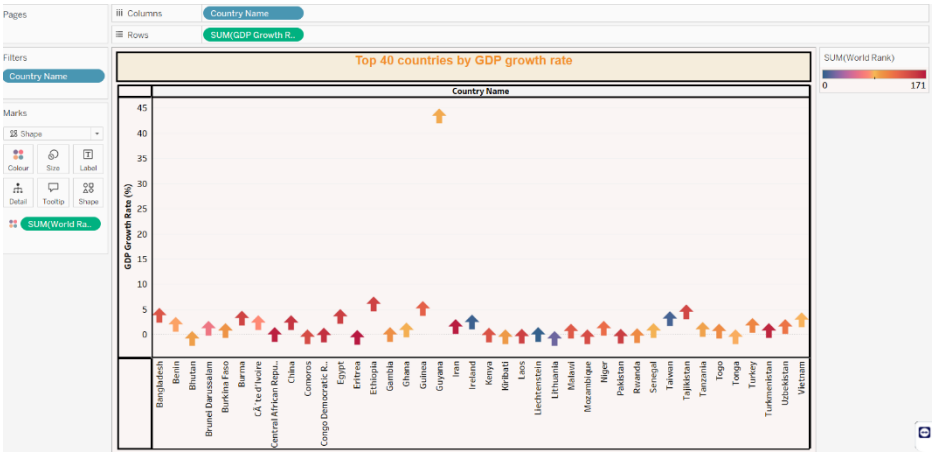

Index score based on financial freedom
Seychelles
Senegal
Namibia
Burkina Faso
Togo
Samoa
Solomon Islands
Papua New Guinea
India
Sri Lanka
Kosovo
Vanuatu
Russia
Rwanda
Guinea
Uganda
Angola
Sierra Leone
Bangladesh
Burma
China
Tonga
Ukraine
Mali
Nepal
Laos
Bhutan
Timor-Leste
Comoros
Lesotho
Liberia
Congo
Belarus
Gabon
Kiribati
Tajikistan
Pakistan
Turkmenistan
Chad
Uruguay
Dominican Republic
Ecuador
Haiti
Tunisia
Mauritania
Equatorial Guinea
Eritrea
Saint Vincent and the Grenadines
Guyana
Iran
Niger
Ethiopia
Guinea-Bissau
Zimbabwe
Bolivia
Cuba
Nigeria
Congo Republic of
Central African Republic
Saint Lucia
Dominica
Venezuela
Sudan
Region
Americas
Asia-Pacific
Europe
Middle East and Nort..
Sub-Saharan Africa

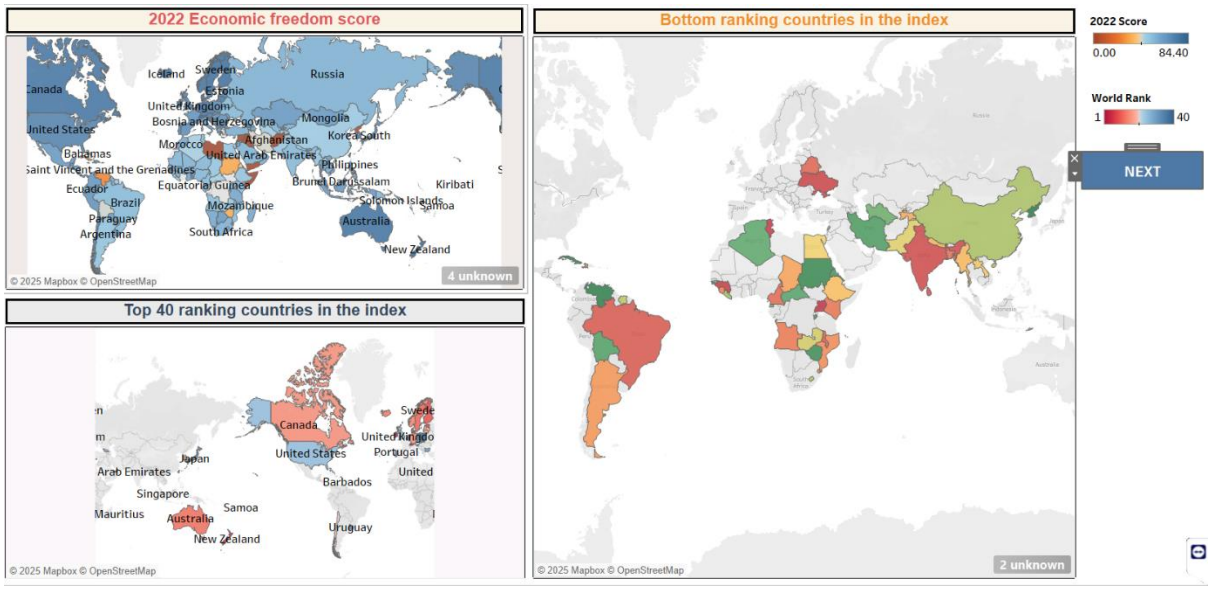

Index score based on 5 year on GDP growth rate(%)
Country Name
5 Year GDP Growth Rate (%)
SUM(2022 Score)
0.00
82.00

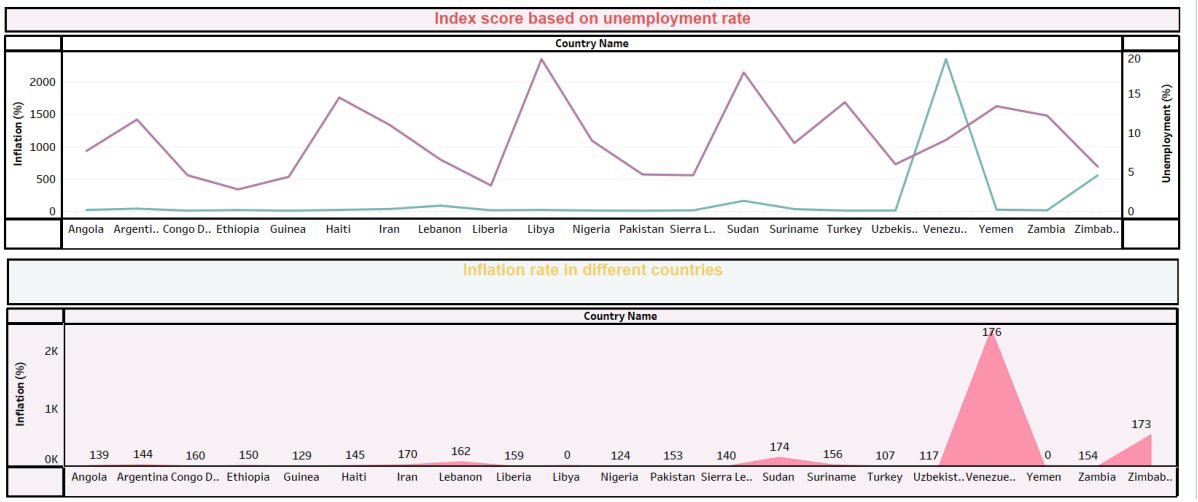

Pages
Columns
Country Name
Rows
SUM(GDP per Capit..
SUM(Monetary Free..
Filters
Country Name
Marks
All
Line
Colour
Size
Label
Detail
Tooltip
Path
Measure Names
SUM(GDP per Ca...
SUM(Monetary F...
Correlation between GDP(PPP) and monetary freedom
Country Name
GDP per Capita (PPP)
Monetary Freedom
Measure Names
100K
90K
80K
70K
60K
50K
40K
30K
20K
10K
0K
90
80
70
60
50
40
30
20
10
0
Albania
Austria
Barbados
Bosnia and Herzegov..
Burkina Faso
Canada
Congo Republic of
Ecuador
Eswatini
Gabon
Greece
India
Japan
Liechtenstein
Maldives
Namibia
Norway
Peru
Russia
Sierra Leone
South Africa
Taiwan
Tunisia
United Arab Emirates
United States
Yemen
Zimbabwe

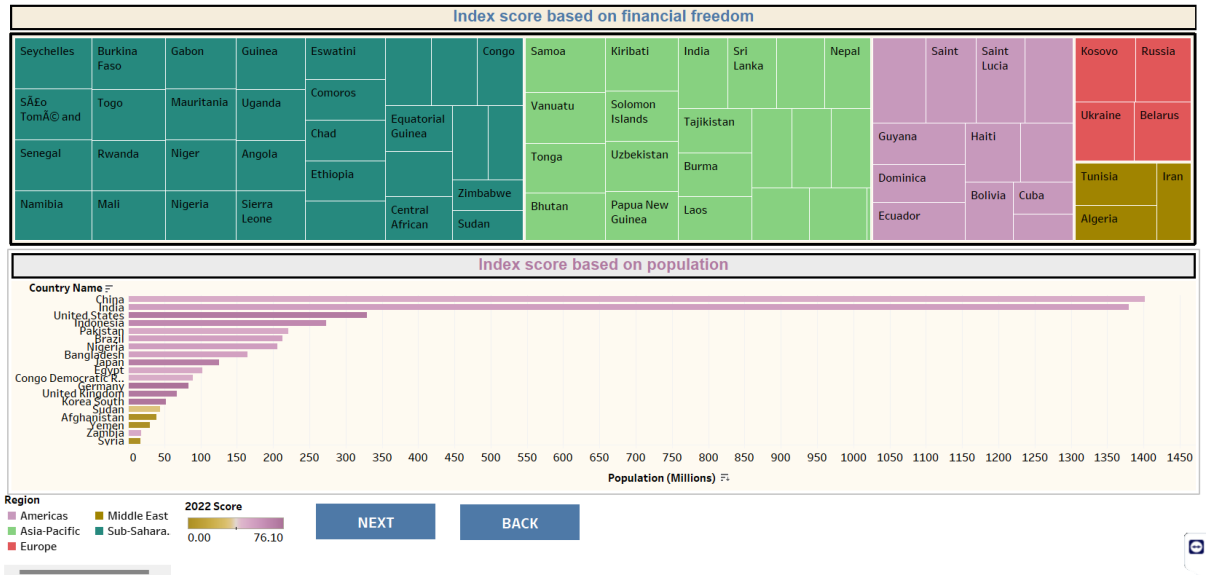

Pages
Columns
Country Name
Rows
SUM(Inflation (%))
Filters
Country Name
Marks
Area
Colour
Size
Label
Detail
Tooltip
SUM(World Ra..
Inflation rate in different countries
Country Name
Inflation (%)
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
139
144
160
150
129
145
170
162
159
0
124
153
140
174
156
107
117
0
154
176
173
Angola
Argenti..
Congo ..
Ethiopia
Guinea
Haiti
Iran
Lebanon
Liberia
Libya
Nigeria
Pakistan
Sierra L..
Sudan
Surina..
Turkey
Uzbeki..
Venezu..
Yemen
Zambia
Zimbab

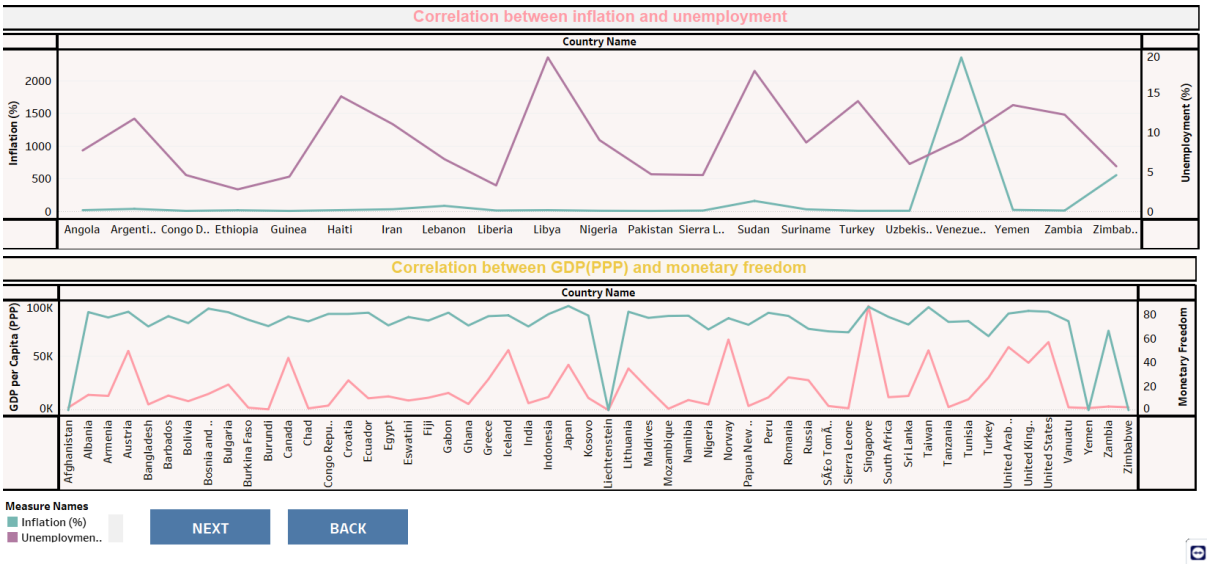

Pages
Columns
Country Name
Rows
SUM(Inflation (%))
SUM(Unemploymen..
Filters
Country Name
Country Name
Marks
All
Line
Colour
Size
Label
Detail
Tooltip
Path
Measure Names
SUM(Inflation (%))
SUM(Unemploy...
Correlation between inflation and unemployment
Country Name
Inflation (%)
Unemployment (%)
Measure Names
2000
1500
1000
500
0
20
18
16
14
12
10
8
6
4
2
0
Angola
Argentina
Congo Democratic Republic of the Congo
Ethiopia
Guinea
Haiti
Iran
Lebanon
Liberia
Libya
Nigeria
Pakistan
Sierra Leone
Sudan
Suriname
Turkey
Uzbekistan
Venezuela
Yemen
Zambia
Zimbabwe

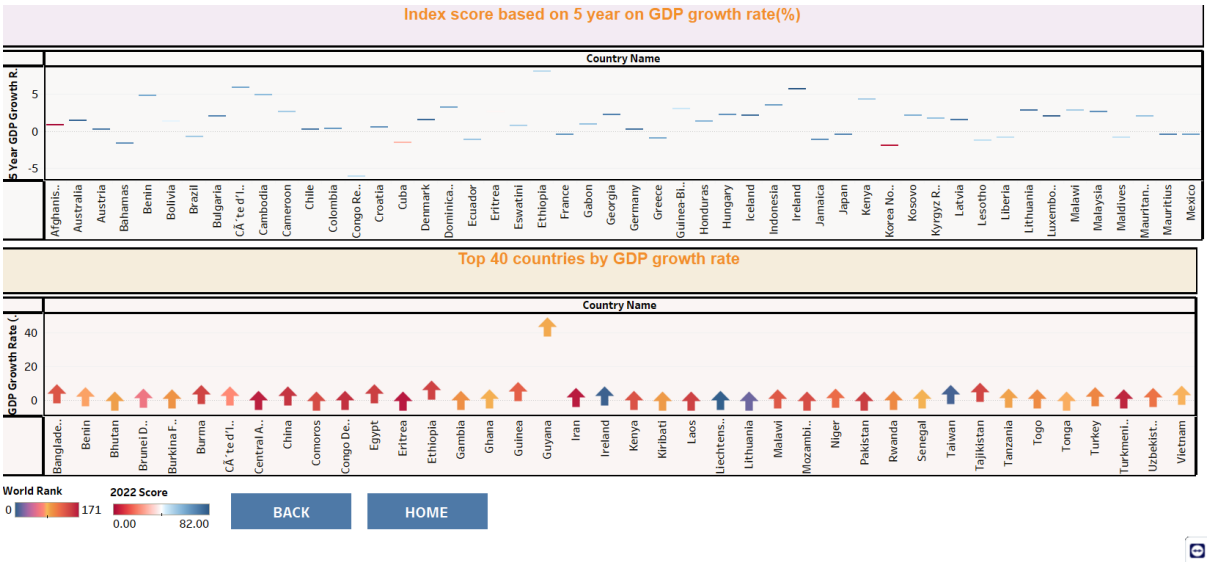

Pages
Columns
Country Name
Rows
SUM(GDP Growth R..
Filters
Country Name
Marks
Shape
Colour
Size
Label
Detail
Tooltip
Shape
SUM(World Ra..
Top 40 countries by GDP growth rate
SUM(World Rank)
0
171
Country Name
GDP Growth Rate (%)
45
40
35
30
25
20
15
10
5
0
Bangladesh
Benin
Bhutan
Brunei Darussalam
Burkina Faso
Burma
CÃ´te d'Ivoire
Central African Repu..
China
Comoros
Congo Democratic R..
Egypt
Eritrea
Ethiopia
Gambia
Ghana
Guinea
Guyana
Iran
Ireland
Kenya
Kiribati
Laos
Liechtenstein
Lithuania
Malawi
Mozambique
Niger
Pakistan
Rwanda
Senegal
Taiwan
Tajikistan
Tanzania
Togo
Tonga
Turkey
Turkmenistan
Uzbekistan
Vietnam

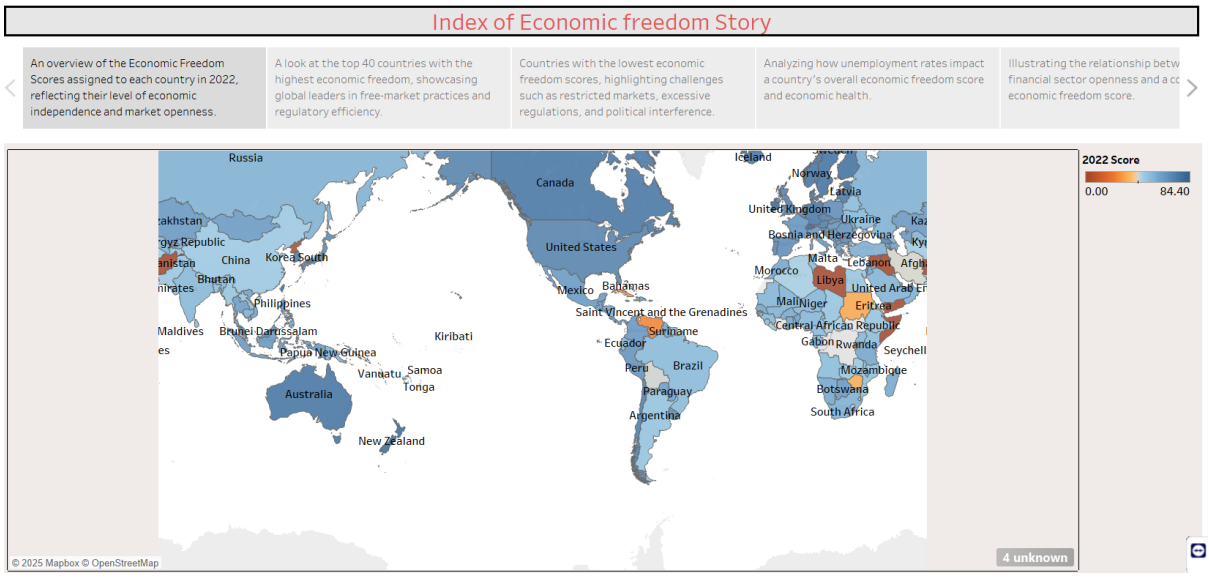

2022 Economic freedom score
Iceland
Sweden
Russia
Estonia
United Kingdom
Bosnia and Herzegovina
Mongolia
Canada
United States
Afghanistan
Korea South
Morocco
United Arab Emirates
Bahamas
Philippines
Saint Vincent and the Grenadines
Brunei Darussalam
Kiribati
Equatorial Guinea
Ecuador
Solomon Islands
Samoa
Brazil
Mozambique
Paraguay
Australia
Argentina
South Africa
New Zealand
4 unknown
© 2025 Mapbox © OpenStreetMap
Bottom ranking countries in the index
2 unknown
© 2025 Mapbox © OpenStreetMap
2022 Score
0.00
84.40
World Rank
1
40
NEXT
Top 40 ranking countries in the index
Canada
United States
Japan
Arab Emirates
Singapore
Mauritius
Australia
Samoa
New Zealand
Barbados
Uruguay
Portugal
© 2025 Mapbox © OpenStreetMap


Index score based on unemployment rate
Country Name
Inflation (%)
2000
1500
1000
500
0
Unemployment (%)
20
15
10
5
0
Angola
Argenti..
Congo D..
Ethiopia
Guinea
Haiti
Iran
Lebanon
Liberia
Libya
Nigeria
Pakistan
Sierra L..
Sudan
Suriname
Turkey
Uzbekis..
Venezu..
Yemen
Zambia
Zimbab..
Inflation rate in different countries
Country Name
Inflation (%)
2K
1K
0K
139
144
160
150
129
145
170
162
159
0
124
153
140
174
156
107
117
176
0
154
173
Angola
Argentina
Congo D..
Ethiopia
Guinea
Haiti
Iran
Lebanon
Liberia
Libya
Nigeria
Pakistan
Sierra Le..
Sudan
Suriname
Turkey
Uzbekist..
Venezue..
Yemen
Zambia
Zimbab..


Index score based on financial freedom
Seychelles
Burkina Faso
Gabon
Guinea
Eswatini
Congo
Samoa
Kiribati
India
Sri Lanka
Nepal
Saint
Saint Lucia
Kosovo
Russia
SÃ£o TomÃ© and
Togo
Mauritania
Uganda
Comoros
Vanuatu
Solomon Islands
Ukraine
Belarus
Senegal
Rwanda
Niger
Angola
Chad
Equatorial Guinea
Tonga
Uzbekistan
Tajikistan
Guyana
Haiti
Tunisia
Iran
Ethiopia
Zimbabwe
Burma
Dominica
Bolivia
Cuba
Namibia
Mali
Nigeria
Sierra Leone
Central African
Sudan
Bhutan
Papua New Guinea
Laos
Ecuador
Algeria
Index score based on population
Country Name
China
India
United States
Indonesia
Pakistan
Brazil
Nigeria
Bangladesh
Japan
Egypt
Congo Democratic R...
Germany
United Kingdom
Korea South
Sudan
Afghanistan
Yemen
Zambia
Syria
0 50 100 150 200 250 300 350 400 450 500 550 600 650 700 750 800 850 900 950 1000 1050 1100 1150 1200 1250 1300 1350 1400 1450
Population (Millions)
Region
Americas
Asia-Pacific
Europe
Middle East
Sub-Sahara.
2022 Score
0.00
76.10
NEXT
BACK


Correlation between inflation and unemployment
Country Name
Inflation (%)
2000
1500
1000
500
0
Unemployment (%)
20
15
10
5
0
Angola Argenti.. Congo D.. Ethiopia Guinea Haiti Iran Lebanon Liberia Libya Nigeria Pakistan Sierra L.. Sudan Suriname Turkey Uzbekis.. Venezue.. Yemen Zambia Zimbab..
Correlation between GDP(PPP) and monetary freedom
Country Name
GDP per Capita (PPP)
100K
50K
0K
Monetary Freedom
80
60
40
20
0
Afghanistan Albania Armenia Austria Bangladesh Barbados Bolivia Bosnia and .. Bulgaria Burkina Faso Burundi Canada Chad Congo Repu.. Croatia Ecuador Egypt Eswatini Fiji Gabon Ghana Greece Iceland India Indonesia Japan Kosovo Liechtenstein Lithuania Maldives Mozambique Namibia Nigeria Norway Papua New .. Peru Romania Russia SÃ£o TomÃ.. Sierra Leone Singapore South Africa Sri Lanka Taiwan Tanzania Tunisia Turkey United Arab .. United King.. United States Vanuatu Yemen Zambia Zimbabwe
Measure Names
Inflation (%)
Unemploymen..
NEXT
BACK


Index score based on 5 year on GDP growth rate(%)
Country Name
5 Year GDP Growth R..
5
0
-5
Afghanis.. Australia Austria Bahamas Benin Bolivia Brazil Bulgaria CÃ´te d'I.. Cambodia Cameroon Chile Colombia Congo Re.. Croatia Cuba Denmark Dominica.. Ecuador Eritrea Eswatini Ethiopia France Gabon Georgia Germany Greece Guinea Bi.. Honduras Hungary Iceland Indonesia Ireland Jamaica Japan Kenya Korea No.. Kosovo Kyrgyz R.. Latvia Lesotho Liberia Lithuania Luxembo.. Malawi Malaysia Maldives Mauritan.. Mauritius Mexico
Top 40 countries by GDP growth rate
Country Name
GDP Growth Rate (..
40
20
0
Banglade.. Benin Bhutan Brunei D.. Burkina F.. Burma CÃ´te d'I.. Central A.. China Comoros Congo De.. Egypt Eritrea Ethiopia Gambia Ghana Guinea Guyana Iran Ireland Kenya Kiribati Laos Liechtens.. Lithuania Malawi Mozambi.. Niger Pakistan Rwanda Senegal Taiwan Tajikistan Tanzania Togo Tonga Turkey Turkmeni.. Uzbekist.. Vietnam
World Rank
0
171
2022 Score
0.00
82.00
BACK
HOME



8. ADVANTAGES & DISADVANTAGES

Advantages:

1. **Data-Driven Insights**
   Provides factual, evidence-based understanding of global economic conditions.
2. **Interactive Visualization**
   Makes complex economic data easy to explore and interpret through dashboards and stories.
3. **Supports Policy Decisions**
   Helps policy makers and economists identify key areas for improvement and reform.
4. **Comparative Analysis**
   Enables benchmarking of countries based on multiple economic indicators.
5. **Public Accessibility**
   Through web integration, the insights are accessible to a broader audience beyond just experts.

Disadvantages:

1. **Data Limitations**
   Reliance on available datasets might exclude certain regions or the most recent updates.
2. **Interpretation Bias**
   Visualizations can be misinterpreted without proper economic background or context.
3. **Dynamic Economic Factors**
   Economic freedom and indicators are subject to rapid change, which may affect the long-term accuracy of insights.
4. **Tool Dependency**
   The project's output depends on tools like Tableau and external data sources, limiting offline accessibility.

9. CONCLUSION

This project successfully provides a comprehensive analysis of global economic freedom by integrating data from the Index of Economic Freedom with key economic indicators such as GDP, inflation, and unemployment. Through systematic data processing, visualization, and storytelling, it enables stakeholders policy makers, economists, business analysts, and the public to gain valuable insights into the economic health and governance of nations. The interactive dashboard and story-driven visualizations simplify complex data, allowing users to identify patterns, compare countries, and support informed decision-making. Ultimately, this project bridges the gap between raw economic data and actionable knowledge, contributing to a deeper understanding of what drives prosperity worldwide.

10. FUTURE SCOPE

The project holds strong potential for future enhancements and real-world applications. In the future, the model can be expanded to include real-time economic data feeds, allowing for dynamic updates and more current insights. Integration with AI-based forecasting models can help predict future trends in economic freedom based on policy changes and global events. Additional economic indicators such as trade balance, foreign investments, and debt-to-GDP ratio can be incorporated to provide a more holistic view of national economic performance. Moreover, the dashboard can be extended to support mobile access, multilingual interfaces, and geo-mapping features, making it even more user-friendly and globally accessible. These improvements would further empower stakeholders to make timely, data-backed economic decisions.

11. APPENDIX

Source Code(Embed code)

```
<!DOCTYPE html>

<html lang="en">

<head>

 <meta charset="UTF-8">

 <title>Index of Economic Freedom</title>

 <meta name="viewport" content="width=device-width, initial-scale=1.0">

 <link href="https://fonts.googleapis.com/css2?family=Inter:wght@400;600&display=swap" rel="stylesheet"> <style>

  body {

   margin: 0;

   padding: 0;

   font-family: 'Inter', sans-serif;

   background-color: #f5f7fa;

   color: #333;

   header {
```

```
    background-color: #2c3e50;
    color: #fff;
    padding: 40px 20px;
    text-align: center;
   }   header h1 {
    margin: 0;
    font-size: 2.5em;
   }.container {
    max-width: 1400px;
    margin: 30px auto;
    padding: 0 20px;
   } .tableauPlaceholder {
    margin: 50px 0;
    width: 100%;
    height: 1000px; /* Large fixed height */
    border-radius: 12px;
    box-shadow: 0 4px 20px rgba(0, 0, 0, 0.1);
    background: white;
   } .tableauViz {
    width: 100%;
    height: 1000px !important;
   } @media (max-width: 768px) {
    header h1 {
     font-size: 2em;
    }
    .tableauPlaceholder, .tableauViz {
     height: 800px !important;
    }
   }
  </style>
</head>
<body>  <header>
   <h1>Index of Economic Freedom</h1>
  </header>
 <div class="container">
```

```
<!-- Dashboard 1 -->

<div class='tableauPlaceholder' id='viz1'>

<noscript>

<a href='#'><img alt='Dashboard 1'
src='https://public.tableau.com/static/images/In/IndexofEconomicfreedomDashboard/Dashboard1/1_rss.png' /></a>

</noscript>

<object class='tableauViz'>

<param name='host_url' value='https%3A%2F%2Fpublic.tableau.com%2F' />

<param name='embed_code_version' value='3' />

<param name='site_root' value='' />

<param name='name' value='IndexofEconomicfreedomDashboard/Dashboard1' />

<param name='tabs' value='yes' />

<param name='toolbar' value='yes' />

<param name='static_image'
value='https://public.tableau.com/static/images/In/IndexofEconomicfreedomDashboard/Dashboard1/1.png' />

<param name='animate_transition' value='yes' />

<param name='display_static_image' value='yes' />

<param name='display_spinner' value='yes' />

<param name='display_overlay' value='yes' />

<param name='display_count' value='yes' />

<param name='language' value='en-GB' />

</object>

</div>  <div class='tableauPlaceholder' id='viz2'>

<noscript>

<a href='#'><img alt='Story 1'
src='https://public.tableau.com/static/images/In/IndexofEconomicfreedomStory_17509483529360/Story1/1_rss.png'
/></a>

</noscript>

<object class='tableauViz'>

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<param name='site_root' value='' />

<param name='name' value='IndexofEconomicfreedomStory_17509483529360/Story1' />

<param name='tabs' value='yes' />

<param name='toolbar' value='yes' />

<param name='static_image'
value='https://public.tableau.com/static/images/In/IndexofEconomicfreedomStory_17509483529360/Story1/1.png' />
<param name='animate_transition' value='yes' />
```

```
      <param name='display_static_image' value='yes' />
      <param name='display_spinner' value='yes' />
      <param name='display_overlay' value='yes' />
      <param name='display_count' value='yes' />
      <param name='language' value='en-GB' />
    </object>
  </div>
 </div>
 <script type='text/javascript' src='https://public.tableau.com/javascripts/api/viz_v1.js'></script>
</body>
</html>
```

Dataset Link

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

GitHub & Project Demo Link

https://drive.google.com/file/d/1KsTSD3rlEVDXrQPS9LGl5iGlMp7bH5T_/view?usp=drive_link

Embed code link:

https://vedhakorada.github.io/Embed-site/