

MEASURING THE PULSE OF PROSPERITY: AN INDEX OF ECONOMIC FREEDOM ANALYSIS

INTRODUCTION:

PROJECT OVERVIEW

The project “Measuring the Pulse of Prosperity: An Index of Economic Freedom Analysis” focuses on analyzing how economic freedom influences prosperity, growth, and overall development across nations. It uses the Index of Economic Freedom published by the Heritage Foundation to evaluate countries based on key pillars such as rule of law, government size, regulatory efficiency, and open markets. The project examines how these factors collectively shape economic performance and living standards.

Purpose of the Project

The purpose of this project is to understand the relationship between economic freedom and prosperity. It aims to identify policy strengths and weaknesses, highlight best practices for economic governance, and provide insights that can help policymakers, researchers, and investors promote sustainable growth, reduce poverty, and improve economic opportunitie

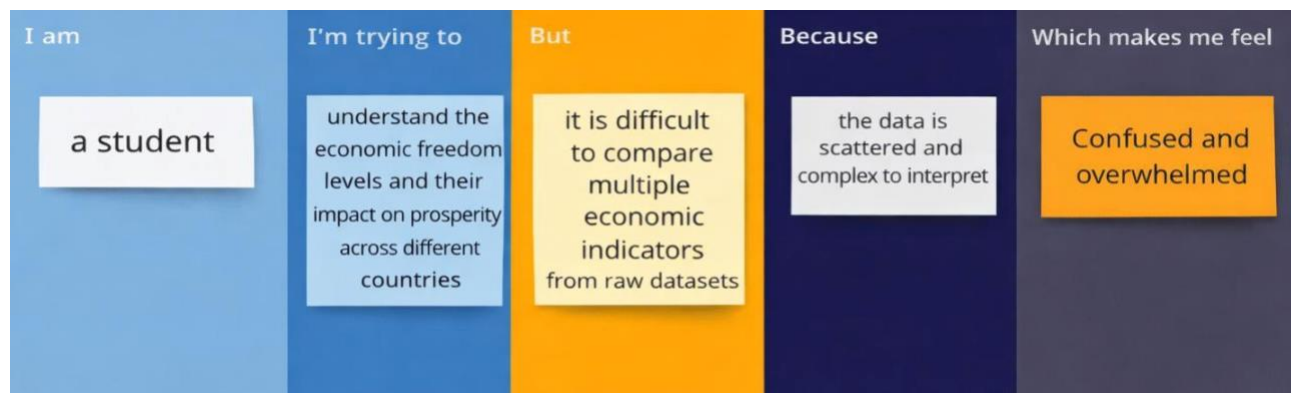
IDEATION PAHSE:

PROBLEM STATEMENTS

Customer Problem Statement :

This problem statement is created to understand the user's perspective regarding the analysis of economic freedom and prosperity across different countries. This helps to identify the challenges faced by users while interpreting economic data and understanding economic indicators. By clearly defining the user's problem, the project aims to provide better insights through data visualization and analysis.

I am	A student analyzing global economic data and economic freedom indicators.
I am Trying to	Understand how economic freedom impacts prosperity, GDP growth, unemployment, and inflation across different countries.
But	It is difficult to analyze and compare multiple economic indicators from raw datasets.
Because	The economic data is complex, scattered across different sources, and not easily understandable without visualization.
Which Makes Me Feel	Confused while interpreting complex economic data.



Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	A student	understand how economic freedom affects prosperity in different countries	it is difficult to analyze many economic indicators	The data is complex and scattered across different sources	Confused
PS-2	A student	Learn about the economic freedom of different countries	the data is hard to understand	there are too many numbers and reports	frustrated

Empathize & Discover

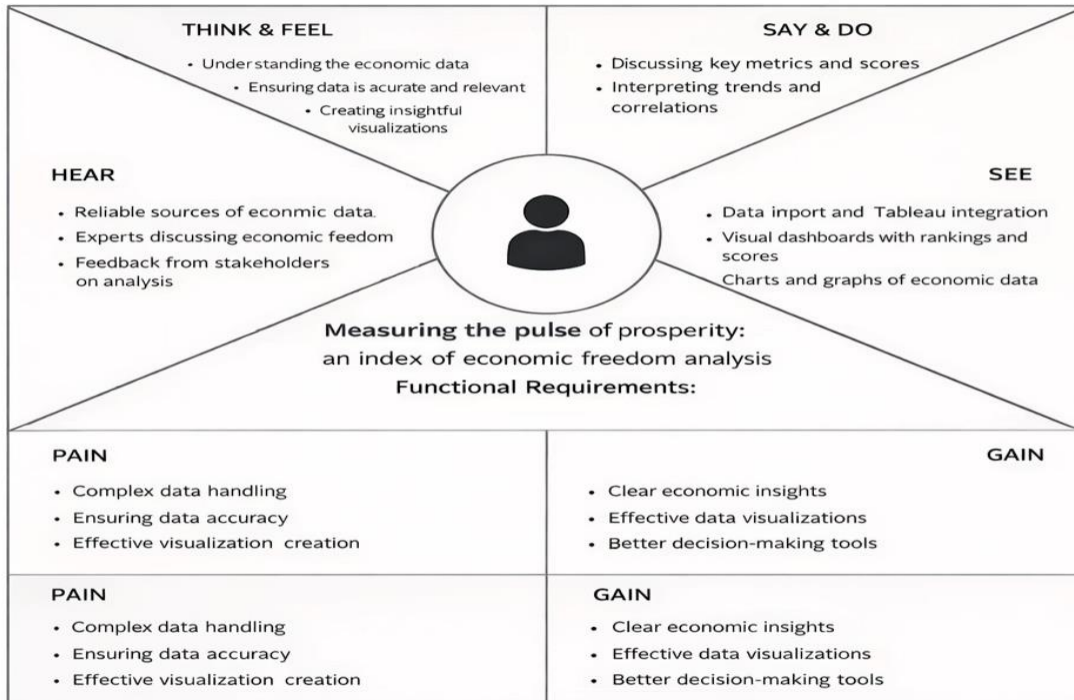
Empathy Map Canvas:

An empathy map is a simple, easy-to-digest visual that captures knowledge about a user's behaviours and attitudes. It is a useful tool to help teams better understand their users. Creating an effective solution requires understanding the true problem and the person who is experiencing it. The exercise of creating the map helps participants consider things from the user's perspective along with his or her goals and challenge

Empathy Map

Measuring the pulse of prosperity: an index of economic freedom analysis

Functional Requirements:



I


Brainstorming & idea prioritisation

BRAINSTORMING & IDEATION PRIORITIZATION TEMPLATE:

This brainstorming and ideation prioritization exercise focuses on analyzing the relationship between economic freedom and prosperity using the Index of Economic Freedom. The team collaboratively generated ideas on how economic freedom influences key economic outcomes such as GDP growth, investment, job creation, governance quality, and market efficiency. These ideas were then grouped into related themes and evaluated using an importance–feasibility matrix. High-priority ideas, including index improvement strategies, policy reform

recommendations, and global case studies, were identified as both impactful and achievable. The process helped streamline the project's focus and ensured that the most relevant and practical ideas guide the analysis of prosperity across countries.

STEP1: Team Gathering, collaboration and select the problem statement




Measuring India: Analysing the Evolution of Economic Freedom Analysis

Use this template in your brainstorming sessions to analyse the **Index of Economic Freedom** and its relation to prosperity.

- 🕒 30 minutes to prepare
- 🕒 1 hour to collaborate
- 👥 3-8 people recommended

Reference: <https://www.mural.co/templates/brainstorm-and-idea-prioritization>




Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

🕒 10 minutes

- ✅ **Team gathering**
Check who's available – join in the session and send an invite. Share relevant materials if necessary.
- 🎯 **Set the goal**
Define the problem, you'll be focusing on: relation between economic freedom and prosperity.
- 🛠️ **Learn how to use the facilitation tools**
- Test your facilitation tools to ensure a smooth and productive session.

Tip: Don't hold back. Focus on one or two ideas that excite you. Share them early – with some feedback.




Define your problem statement

What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

🕒 5 minutes


How might we use the Index of Economic Freedom to measure the level of prosperity?



Key rules of brainstorming

- 🗣️ Work in an open and positive session
- 🗣️ No judgment
- 🗣️ Go for volume
- 🗣️ Encourage wild ideas
- 🗣️ Listen to others
- 🗣️ Be visual

STEP-2: Brainstorm & Idea listening and Grouping



Measuring the Pulse of Prosperity: An Index of Economic Freedom and Prosperity

1 Brainstorm

Write down any ideas that come to mind that address the relation between economic freedom and prosperity.

10 minutes

Avni

GDP Link

Yahan

Person 3

Person 4

Person 13

Person 5

Person 7

Person 8

1 Group Ideas

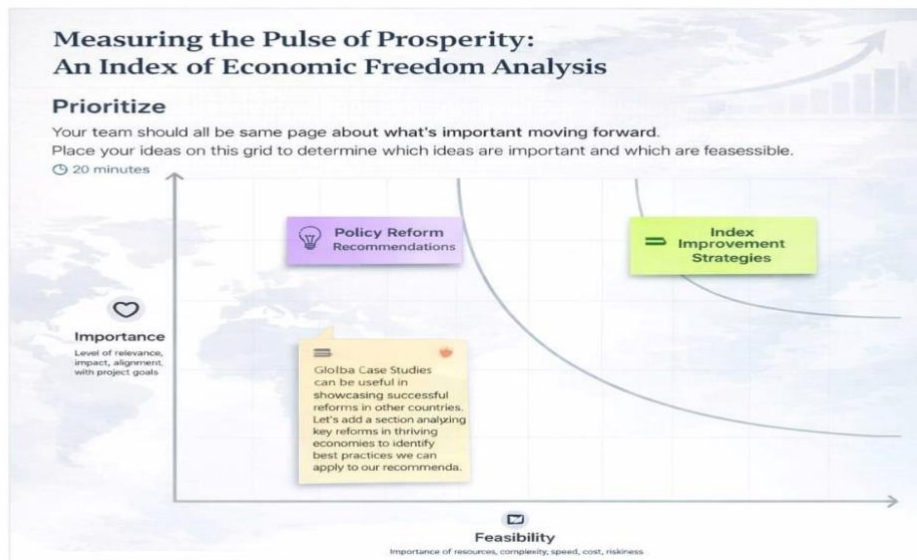
Take time organizing your while clustering similar or related notes as you go. If there are sticky notes, try and see if you weak ito up into smaller sub-groups.

10 minutes

Impacts of Economic Freedom

Higher GDP	More investment	Job creation	Not sure where to start? Focus on the present, make decisions for now. Don't be afraid to experiment.
Better governance	Less corruption	Stronger markets	
Stronger rule of law	Attracting more FDI		

SREP-3: Idea prioritization



REQUIREMENT ANALYSIS:

CUSTOMER JOURNEY MAP

Customer Journey Map

Project: **Measuring the Pulse of Prosperity – Index of Economic Freedom Analysis**



SOLUTION REQUIREMENTS

Project Design Phase-II

Solution Requirements (Functional & Non-functional)

Functional Requirements:

Following are the functional requirements of the proposed solution

S.No	FUNCTIONAL REQUIREMENTS	SUB REQUIREMENTS (Sub / sub Task
1.	Data collection	1. Downloading the data set
2.	Working with data set	1. Understand the data

		2. Import dataset into database and connect tableau desktop to dashboard server
3.	Data visualization	1. No.of visualization, <ul style="list-style-type: none"> • 2022 Economic freedom score • Top 40 ranking countries in the index • Bottom ranking countries in the index • Index score based on unemployment rate • Index score based on financial freedom • Index score based on population • Index score based on 5 year on GDP growth rate(%) • Inflation rate in different countries • Correlation between inflation and unemployment • Correlation between GDP(PPP) and monetary freedom • Top 40 countries by GDP growth rate
4.	Dashboard	1. Creating the Dashboard
5.	Story	1. Creating the story board
6.	Publishing and web integration	1. Publishing dashboard and reports to tableau public 2. Integrating with Web with Embed code
7.	Performance testing	1. Amount of Data Rendered to DB 2. Utilization of Data Filters

Non-functional Requirements:

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

S.NO	NON- FUNCTIONAL REQUIREMENTS	DESCRIPTION
------	------------------------------	-------------

1.	Usability	The dashboard should be simple, interactive, and easy to understand with clear visualizations and responsive filters.
2.	Security	The system must protect economic data and analysis results from unauthorized access and ensure data integrity.
3.	Reliability	The analysis should consistently produce accurate and repeatable results using the same data and methods.
4.	Performance	The system should efficiently process economic freedom data and generate results without significant delays.
5.	Availability	Project data and analytical outputs should be accessible whenever needed for study, collaboration, or evaluation.
6.	Scalability	The system must support the addition of more countries, indicators, and time periods without affecting performance.

DATA FLOW DAIGRAM:

A Data-Flow diagram is a way of representing a flow of Dara through a process or a system. The DFD also provide information about the outputs and inputs of each entity and the process itself. A data-flow diagram has no control flow there are no rules and no loops.

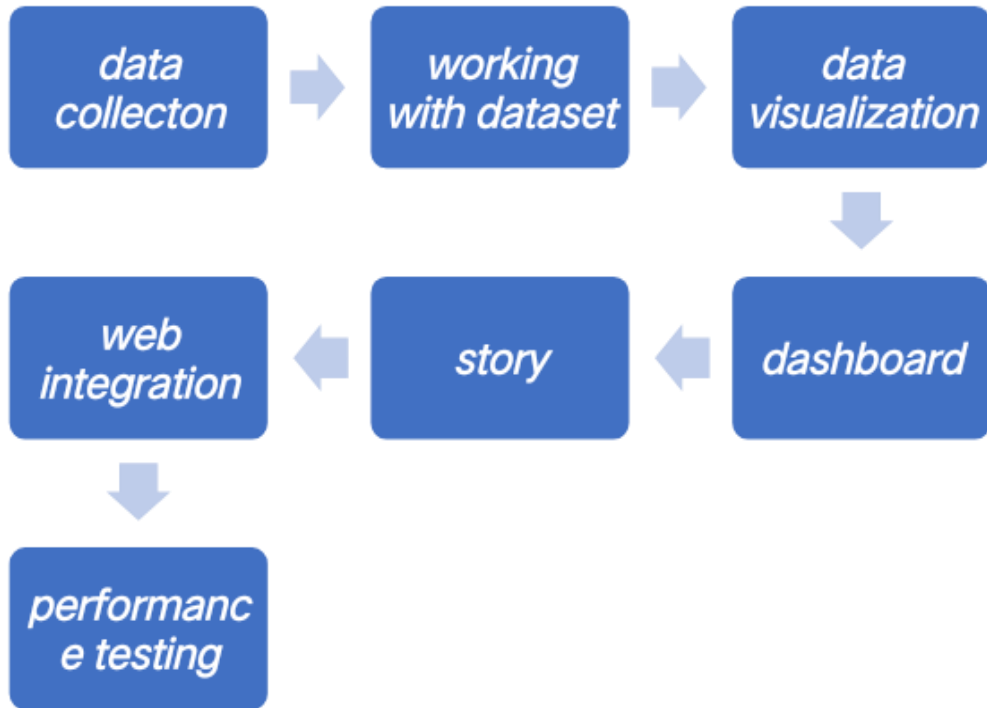
USES:

Visualizes data movement in a system clearly and logically.

Identifies system inputs, outputs, processes, and data storage elements .

Helps in system Analysis by understanding the flow of information.

Simplifies complex system into understandable components.

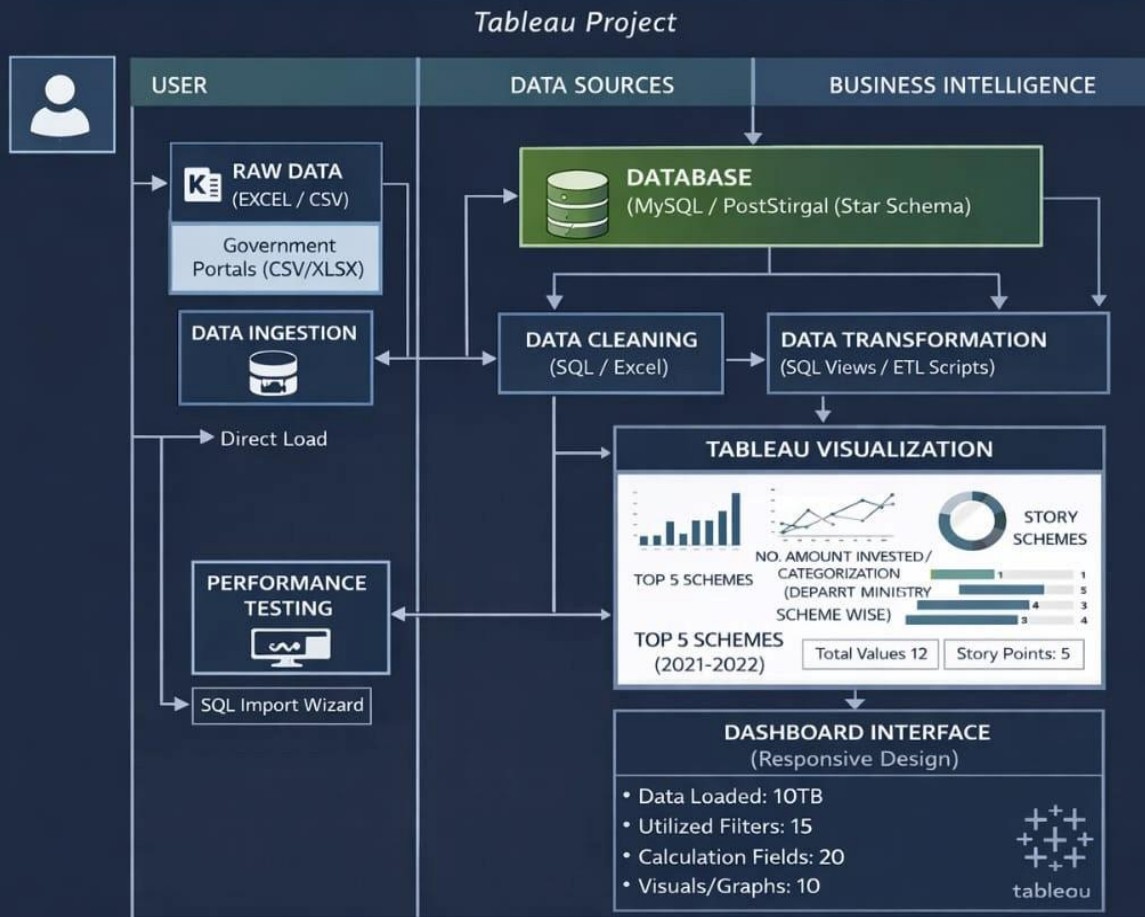


TECHNOLOGY STACK

(Architecture & stack)

TECHNICAL ARCHITECTURE: The technical architecture of the Economic Freedom Analysis project follows a structured end-to-end data flow. Raw data is collected from Excel/CSV files and government datasets, then loaded into a relational database like MySQL.

END-ENTD DATA ANALYTICS TECHNOLOGY STACK (SQL, EXCEL & TABLEAU)



The data is cleaned and transformed using SQL and Excel to remove errors, handle missing values, and create calculated metrics. After processing, the refined data is connected to Tableau to build interactive dashboards and visualizations. Finally, the dashboard presents insights such as country comparisons, pillar-wise analysis, and trend evaluation for effective decision-making.

TABLE-1:Components & Technologies:

S.No	Components	Description	Technologies
1.	Data Source	Contains raw Economic Freedom Index data such as country scores and ranking	CSV/ Excel

2.	Data storage	Stores organized data securely for querying and analysis	My SQL
3.	Data visualization	Builds interactive dashboards, charts, and maps for analysis	Tableau
4.	Reporting	Presents insights like country comparisons, pillar analysis, and trends for decision making	Tableau dashboard
5.	Dashboard interaction	Allows users to explore data dynamically	Tableau filters & parameters
6.	Data validation	Ensure accuracy, consistency, and reliability of data	Excel / SQL constraints
7.	Data processing	Cleans data, removes errors, and create calculated metrics and KPIs	SQL / Excel
8.	KPI calculation	Computer overall scores, averages, and rankings	SQL & Tableau calculated Fields

PROJECT DESIGN:

PROBLEM-SOLUTION FIT

PROBLEM – SOLUTION FIT

PROBLEM:

Many countries still face low economic freedom due to corruption, weak legal systems, high taxes, heavy government control, and trade restrictions. These issues limit business growth, reduce investment, and slow economic development, leading to poverty and unemployment.

SOLUTION FIT:

By analyzing data from the Index of Economic Freedom published by The Heritage Foundation, governments can identify weak areas in rule of law, government size, regulatory efficiency, and open markets. Improving these areas can increase economic growth, investment, and overall prosperity.

PURPOSE:

- ❖ To measure the level of economic freedom across countries.
- ❖ To analyze the four pillars: rule of law, government size, regulatory efficiency, and open markets.
- ❖ To identify strengths and weaknesses in a country's economic system.
- ❖ To understand the relationship between economic freedom and prosperity.
- ❖ To provide recommendations for policy improvements.
- ❖ To create awareness about the importance of economic freedom in reducing poverty and promoting growth.

PROBLEM-SOLUTION FIT TEMPLATE:

Problem-Solution Fit canvas		Measuring the Pulse of Prosperity: An Index of Economic Freedom Analysis		Version 1.0
Define CS, fit into CL	1. CUSTOMER SEGMENT(S) CS <ul style="list-style-type: none"> Economists, policymakers, researchers, investors, and business leaders interested in the level of economic freedom in different countries 	6. CUSTOMER LIMITATIONS CL <small>EG. BUDGET, DEVICES</small> <ul style="list-style-type: none"> Limited access to up-to-date, comprehensive data, budget constraints, time limitations for analysis 	5. AVAILABLE SOLUTIONS AS <small>PULSES & MINUSES</small> <ul style="list-style-type: none"> Existing economic indexes (e.g. Doing Business, World Economic Forum reports) Limited or outdated information, lack of detailed or specific measures 	Explain AS, differentiate
	2. PROBLEMS / PAINS PR <small>& ITS FREQUENCY</small> <ul style="list-style-type: none"> Difficulty in measuring and comparing economic freedom objectively. Lack of clear framework to guide policy decisions Need to identify factors influencing prosperity 	9. ROOT / CAUSE OF PROBLEM PR <ul style="list-style-type: none"> Fragmented and inconsistent data sources, subjective measures of freedom Insufficient analysis of factors affecting economic freedom 	7. BEHAVIOR BE <small>& ITS INTENSITY</small> <ul style="list-style-type: none"> Economists and policymakers struggling to assess economic freedom accurately, Businesses and investors need clear indicators before making decisions 	
Pinch PR, time DC	3. TRIGGERS TO ACT TR <ul style="list-style-type: none"> The need for up-to-date, reliable, and detailed information on economic freedom The desire to identify factors that contribute to prosperity and growth 	10. YOUR SOLUTION SL <ul style="list-style-type: none"> Develop a comprehensive and up-to-date Index of Economic Freedom that measures economic freedom based on 12 quantitative and qualitative factors grouped into four pillars: <ul style="list-style-type: none"> Rule of law Government size Regulatory efficiency Open markets 	8. CHANNELS of BEHAVIOR CH <p>ONLINE</p> <ul style="list-style-type: none"> Website with dashboard and detailed reports email newsletters Webinars, social media <p>OFFLINE</p> <ul style="list-style-type: none"> Reports and presentations for policymakers International conferences 	Estimate their effectiveness
	4. EMOTIONS EM <small>BEFORE / AFTER</small> <ul style="list-style-type: none"> BEFORE: Frustrated and unsure about the level of economic freedom in various countries 		8. CHANNELS of BEHAVIOR CH <p>ONLINE</p> <ul style="list-style-type: none"> Website with dashboard and detailed reports email newsletters Webinars, social media 	
4. EMOTIONS EM <small>BEFORE / AFTER</small> <ul style="list-style-type: none"> BEFORE: Frustrated and unsure about the level of economic freedom in various countries, AFTER: Confident and informed about economic freedom levels and opportunities for improvement 				

Problem Solution fit canvas is licensed under a Creative Commons Attribution NonCommercial NoDerivatives 4.0 International License. Designed by Daria Nepristina / [ideahackers.nl](https://www.ideahackers.nl) - no taller asset to customer behavior and increase adoption probability.

PROPOSED SOLUTION TEMPLATE

PROPOSED SOLUTION TEMPLATE:

project team shall fill the following information in proposed solution template

S NO	PARAMETERS	DESCRIPTION
1.	Problem statement (problem to be solved)	Economic prosperity is often measured using limited indicators like GDP, which fail to capture institutional quality, governance, and market freedom. Policymakers and investors lack a comprehensive tool to identify structural barriers to sustainable growth.
2.	Idea/ solution description	Use the Index of Economic Freedom, developed by the Heritage Foundation, to evaluate countries based on rule of law, government size, regulatory efficiency, and market openness, enabling data-driven policy and investment decisions.
3.	Novelty/ uniqueness	<ul style="list-style-type: none"> ● Holistic assessment beyond income metrics ● Standardized global comparison ● Direct linkage between policy reforms and economic outcomes
4.	Social impact/ customer satisfaction	Promotes good governance, transparency, entrepreneurship, and inclusive growth while helping governments, investors, and citizens make informed decisions.
5.	Business model (Revenue model)	Revenue through data subscriptions, policy consulting, licensing reports, and customized analytical dashboards.

6.	Scalability of the solution	Highly scalable across countries and regions due to standardized methodology and low marginal costs, with potential integration of advanced analytics.
----	-----------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------

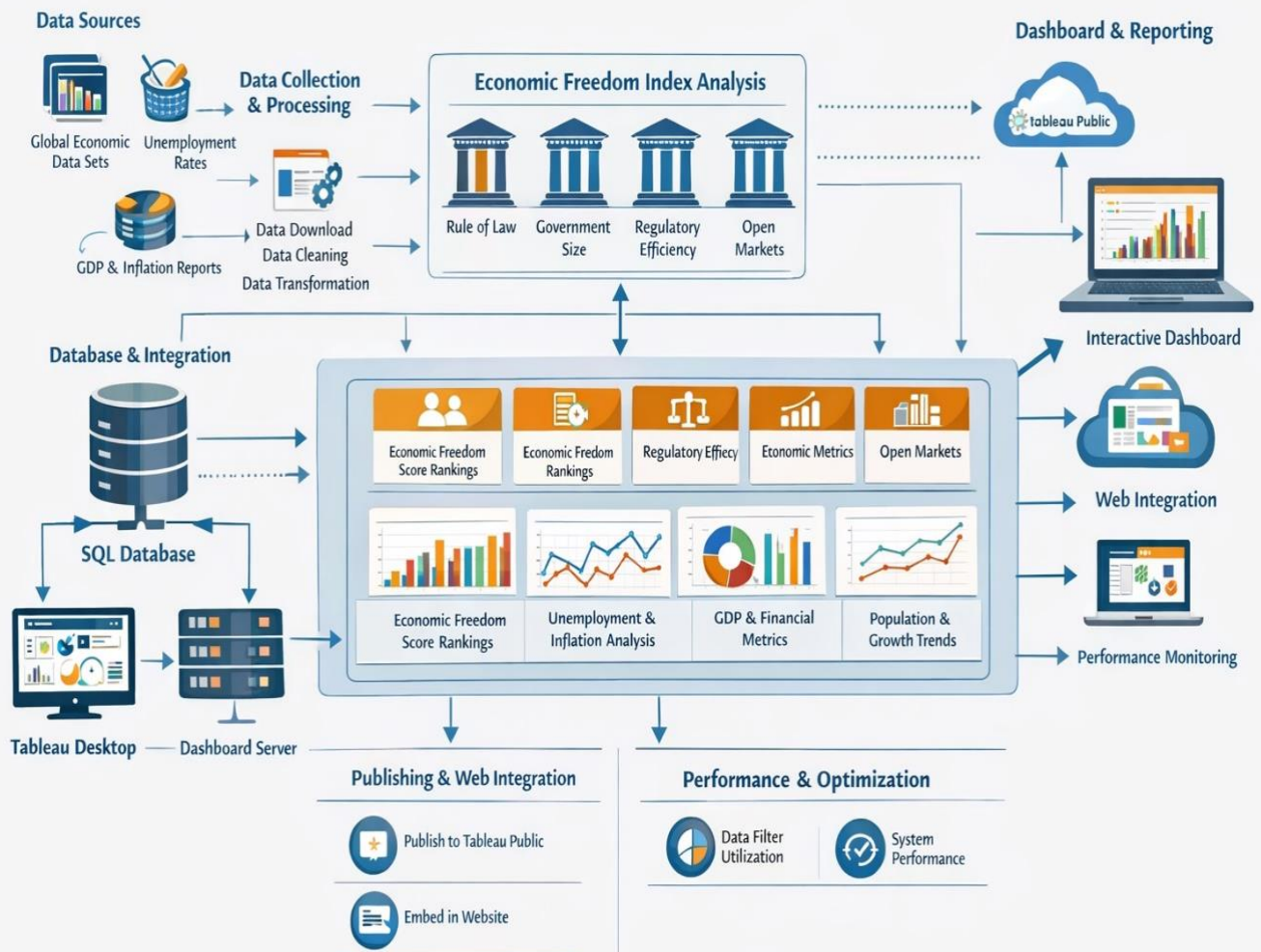
Solution Architecture

SOLUTION ARCHITECTURE:

- 1.Data Collection:Collect data on Economic Freedom indicators, GDP, unemployment, taxes, and trade from global sources.
- 2.Data Processing:Clean the data, remove errors, and organize it into four pillars: Rule of Law, Government Size, Regulatory Efficiency, and Open Markets.
- 3.Database Storage:Store the prepared data in an SQL database for structured management and easy access.
- 4.Analysis:Calculate the overall Economic Freedom score and generate country rankings and comparisons.
- 5.Visualization:Create interactive dashboards in Tableau to display rankings and economic trends.
- 6.Publishing:Publish the dashboard online and embed it into a website for public access.
- 7.Dashboard creation: Design interactive charts and graphs in Tableau.
- 8.Comparison: Compare countries based on rankings and performance.
- 9.Deployment: Publish the dashboard online and share it through website.

SOLUTION ARCHITECTURE TEMPLATE:

Economic Freedom Analysis Solution Architecture



PROJECT PLANNING & SCHEDULING

PROJECT PLANNING

Product Backlog, Sprint Schedule, and Estimation :-

The below template is for product backlog and sprint schedule

Sprint	Functional Requirement	User story number	User story/Task	Story points	Priority	Team Members
Sprint 1	Data collection	USN-1	Collect Economic Freedom Index dataset and download that.	2	High	Gadi Hemalata
Sprint 1	Working with dataset	USN-2	Clean and prepare the dataset for analysis.	2	Medium	Buddepu krishnaveni
Sprint 2	Data visualization	USN-3	Create charts to visualize economic indicators.	4	Medium	Hemalatha Krishnaveni Jyothsna Soniya
Sprint 2	Dashboard	USN-4	Build an interactive dashboards for country comparison.	4	High	Chintanippula soniya
Sprint 3	Story	USN-5	Create a story to present insights from the analysis.	4	High	Dondapati Jyothsna
Sprint 3	Publishing	USN-6	Publish the dashboard and story on	3	High	Gadi Hemalatha
			Tableau Public.			

Sprint 4	Web integration	USN-7	Embed the dashboard into a web page.	6	High	Buddepu krishnaveni
Sprint 4	Performance testing	USN-8	Test dashboard performance and functionality.	4	Medium	Ch.soniya d.jyotshna

Project Tracker, Velocity & Burndown Chart :--

Sprint	Total story points	Duration	Sprint start date	Sprint end date	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint 1	20	6	05 Feb 2026	10 Feb 2026	20	10 feb 2026
Sprint 2	20	6	11 Feb 2026	16 Feb 2026	20	11 feb 2026
Sprint 3	20	6	17 Feb 2026	22 Feb 2026	20	17 Feb 2026
Sprint 4	20	6	23 Feb 2026	28 Feb 2026	20	28 Feb 2026

Velocity:--

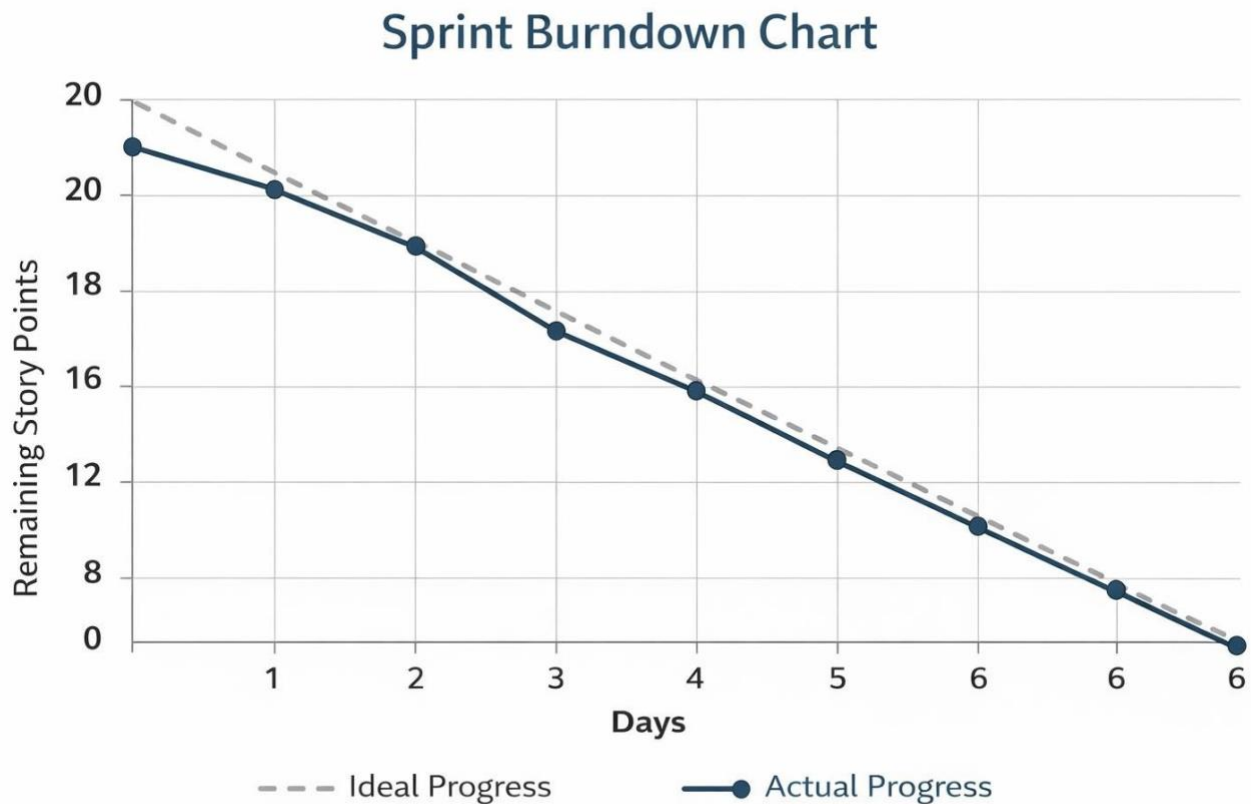
We have 6 days sprint duration , and the total story points is 20. Calculate the team average velocity per iteration unit

Average velocity (Av) = Velocity/Sprint duration

$$20/6 = 3.333$$

Burndown Chart :--

The burndown chart is used to track the progress of the sprint by showing the remaining story points over the sprint duration. In this project, each sprint has 20 story points with a duration of 6 days. As tasks are completed each day, the remaining story points gradually decrease until they reach zero on the final day of the sprint.



FUNCTION AND PERFORMANCE TESTING

PROJECT DEVELOPMENT PHASE

PERFORMANCE TESTING Performance

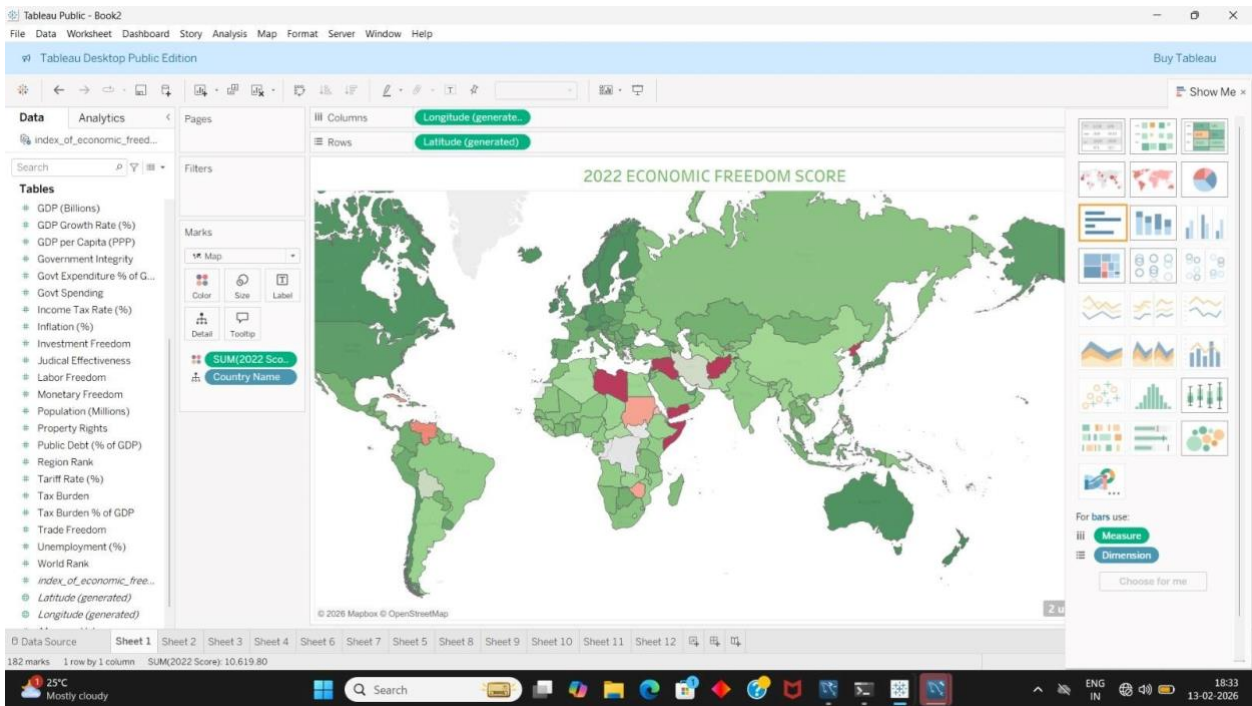
Testing:

S.no	Parameter	Screenshot/values
1.	Data Rendered	Visual representation of country-wise and year-wise economic freedom scores.
2.	Data Processing	Cleaning, formatting, and organizing data for accurate analysis.
3.	Utilization of filters	Interactive filters used for country, region, and year selection.
4.	Calculation fields used	Calculations for averages, rankings, and comparative scores.
5.	Dashboard design	Combined visualizations to present insights clearly and effectively
6.	Story design	Sequential visuals explaining trends and key findings.

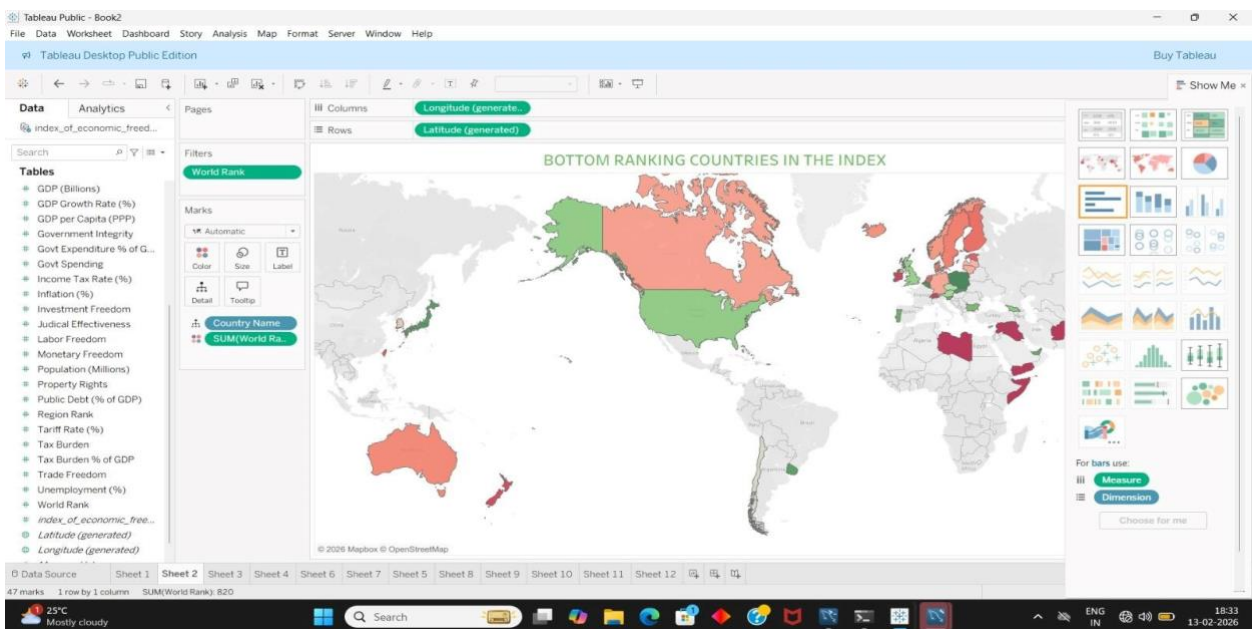
RESULTS: OUTPUT RESULTS

Data visualizations

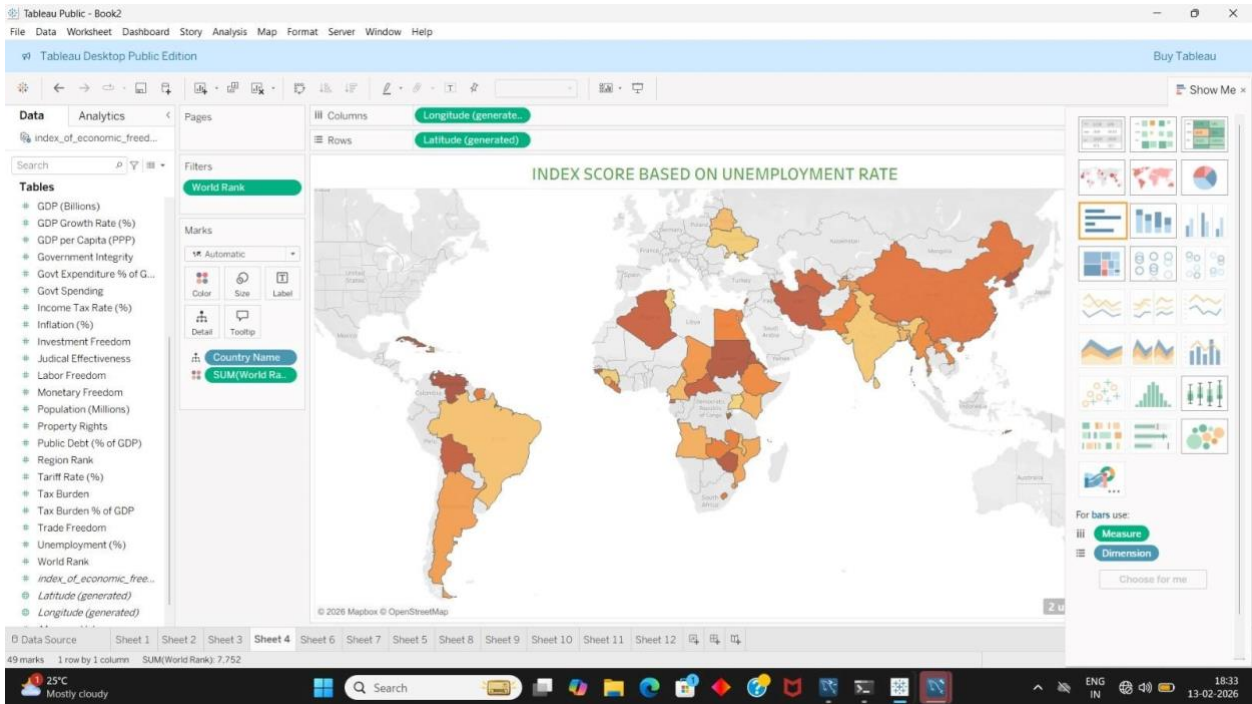
1.2022 Economic Freedom score



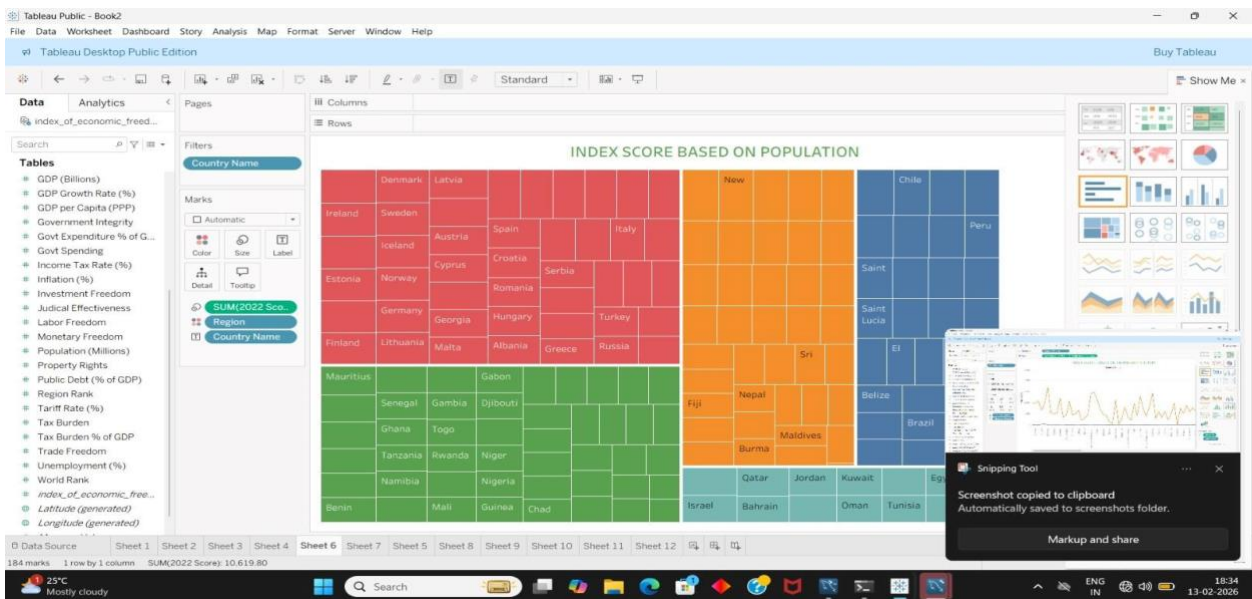
2. Bottom Ranking countries in the index



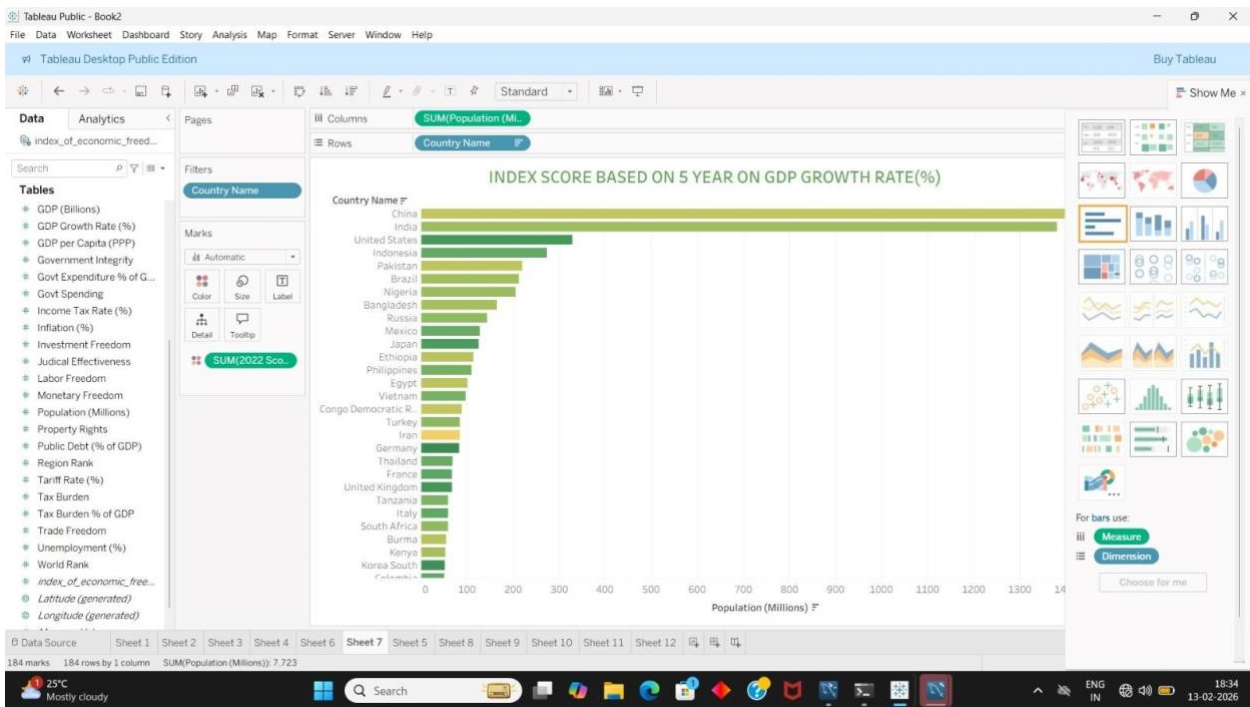
3. Index score based on unemployment



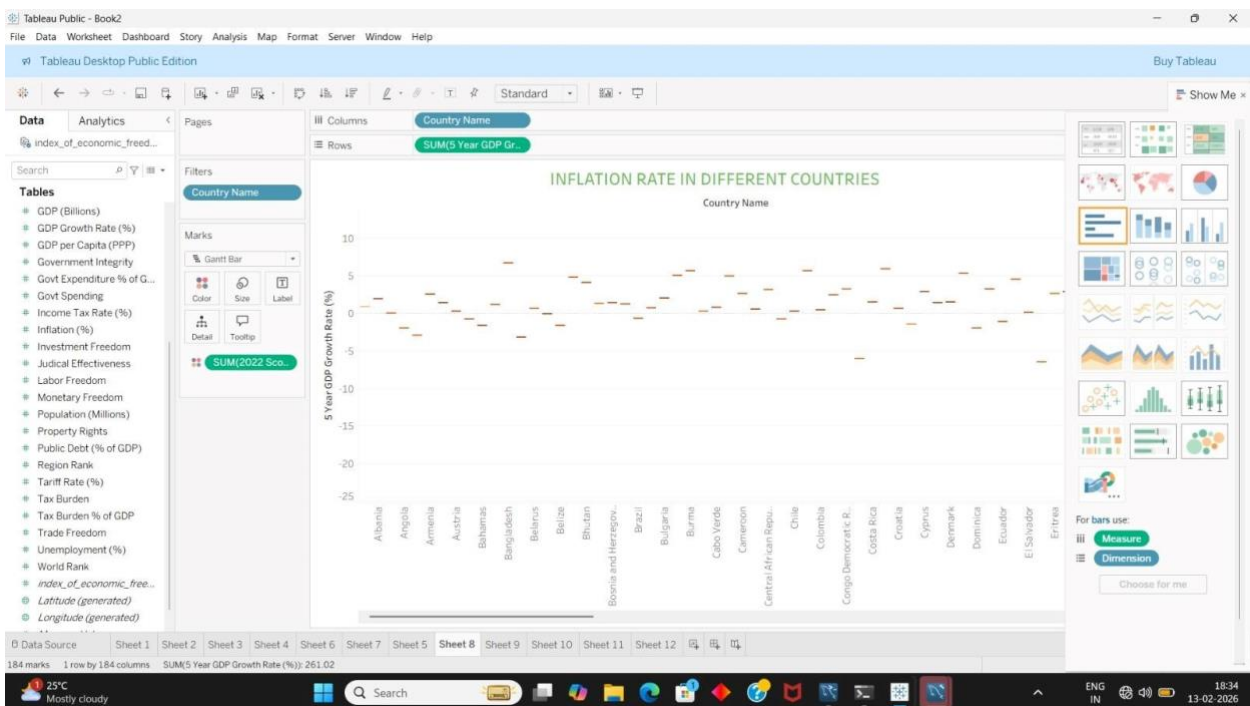
4. Index score based on population



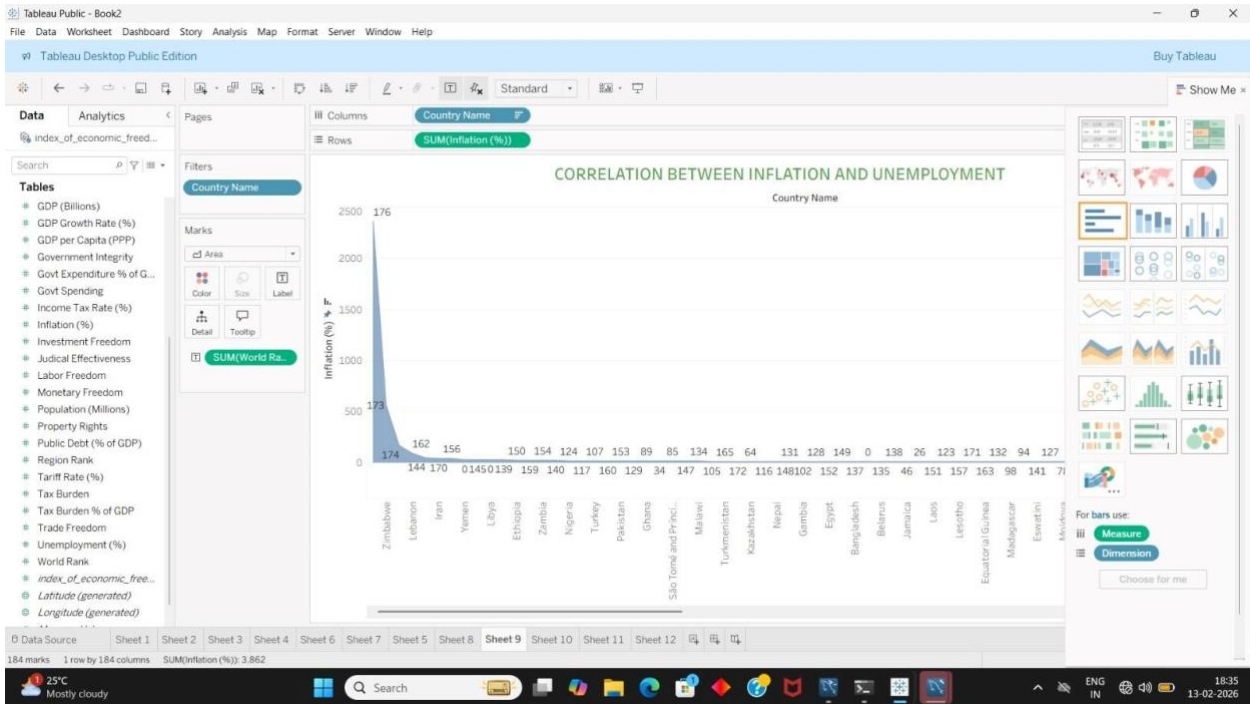
5. Index score based on 5 years on GDP (PPP) Growth rate (%)



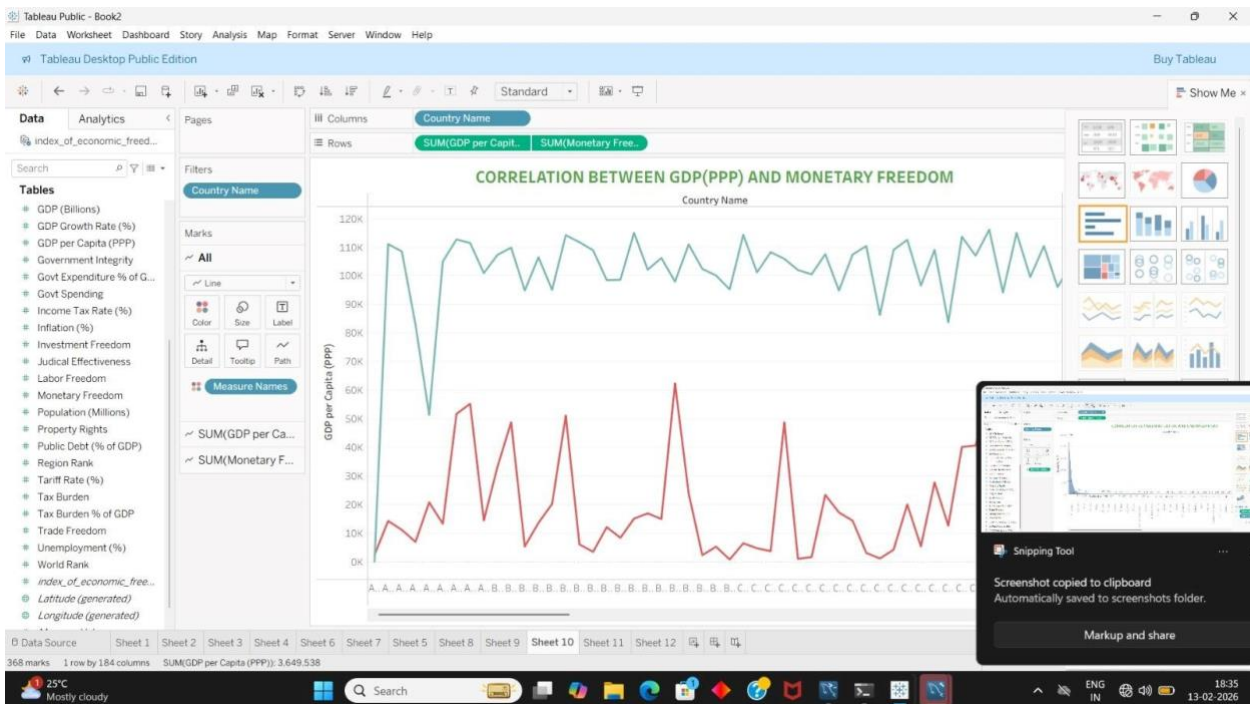
6. Inflation rate in Different countries



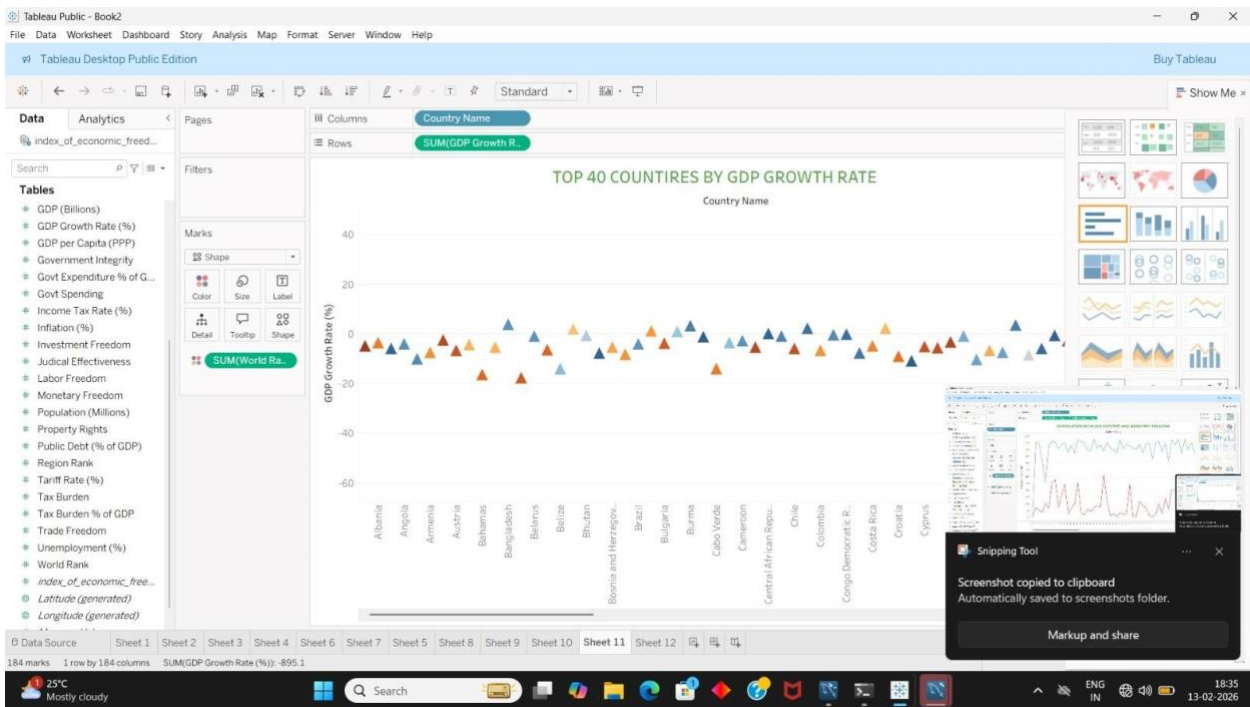
7. Correlation between inflation and unemployment



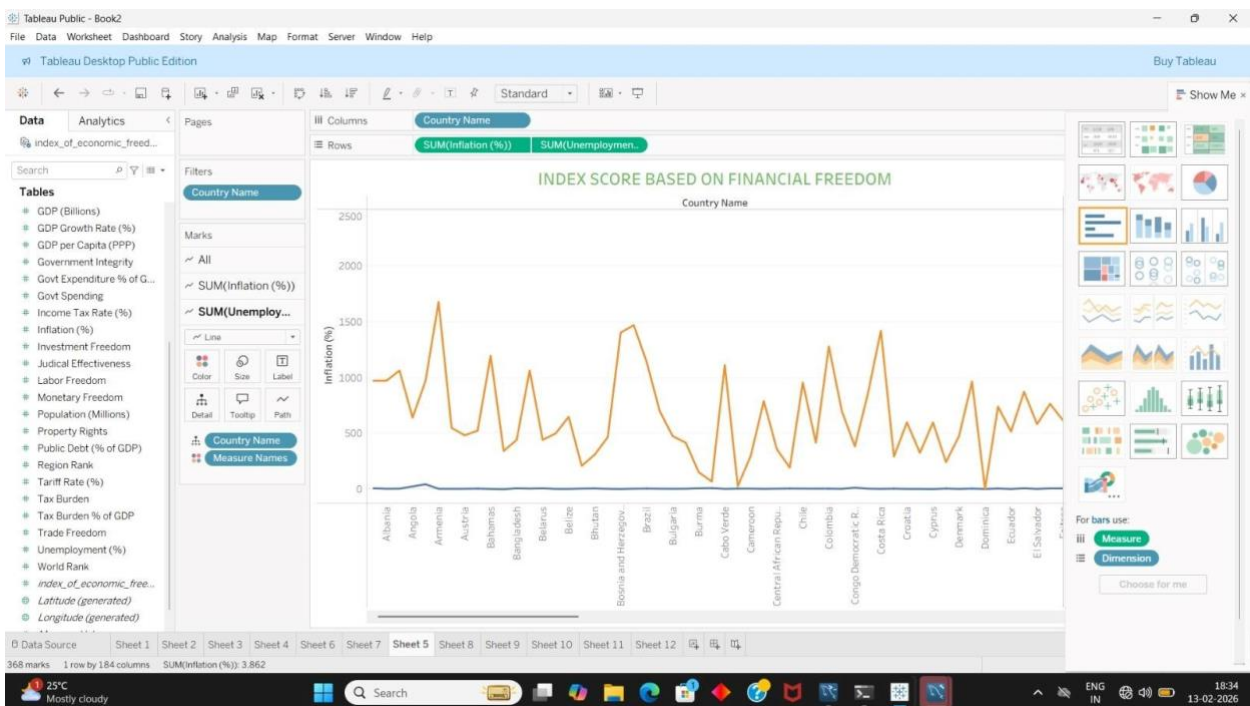
8. Correlation between GDP(PPP) AND Monetary Freedom



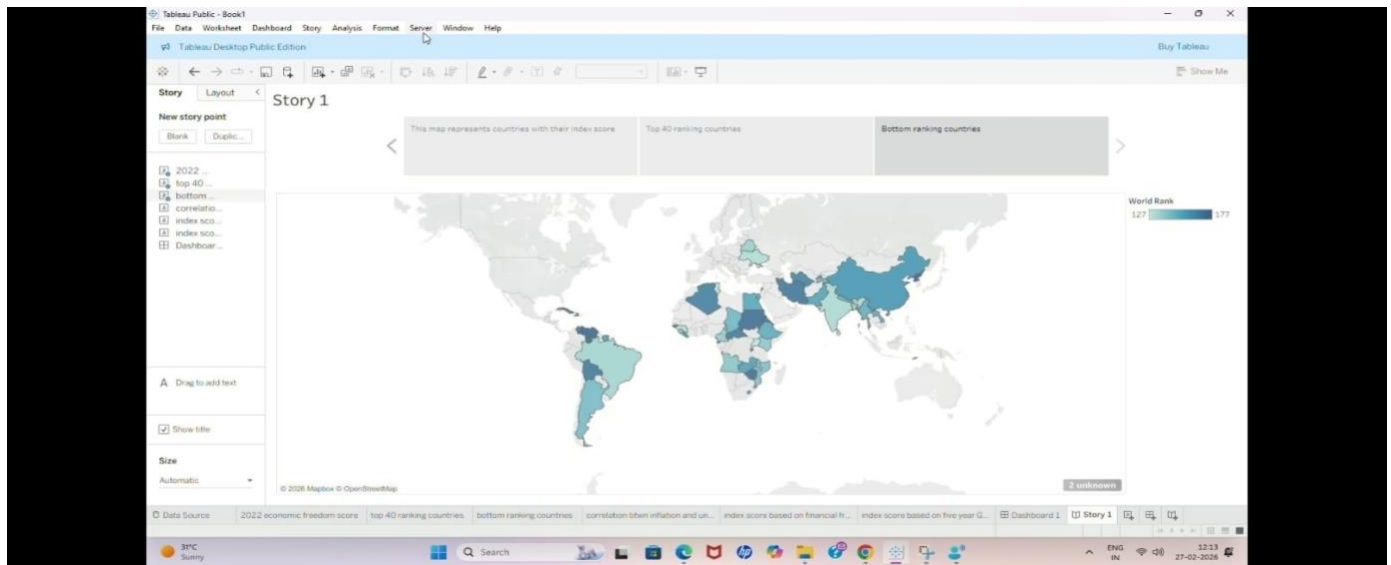
9. Top 40 countries by GDP Growth rate



10. Index score based on financial freedom



DASHBOARDS:



WEB INTEGRATION



ADVANTAGES AND DISADVANTAGES:

ADVANTAGES:

- ❖ Provides a comprehensive measure of economic freedom using 12 qualitative and quantitative indicators.
- ❖ Helps explain why economic freedom leads to prosperity, reduced poverty, and better living standards.
- ❖ Encourages free movement of labor, capital, and goods, supporting innovation and growth.
- ❖ Supports good governance through emphasis on rule of law, judicial effectiveness, and integrity.
- ❖ Assists governments and institutions in policy evaluation and reform planning.

DISADVANTAGES:

- ❖ May oversimplify complex economic realities by using standardized indicators across diverse countries.
- ❖ Heavy focus on market freedom may underestimate the role of government intervention in social welfare.
- ❖ Some qualitative measures (like integrity and judicial effectiveness) can be subjective.
- ❖ Does not fully capture social equity or income distribution aspects.
- ❖ Economic freedom alone may not address short-term economic shocks or crises.

CONCLUSION :

Measuring the pulse of prosperity through the Index of Economic Freedom provides a clear and structured framework for understanding how economic freedom influences growth, opportunity, and human well-being. By evaluating countries across key pillars such as rule of law, government size, regulatory efficiency, and open markets, the index highlights the importance of policies that protect individual liberty and encourage free economic activity. Although the approach has certain limitations, including subjectivity and reduced sensitivity to local contexts, it remains a valuable tool for policymakers, investors, and researchers. Overall, the analysis demonstrates that greater economic freedom is closely associated with higher prosperity, reduced poverty, and improved quality of life.

FUTURE SCOPE:

The Index of Economic Freedom has significant potential for further development and application. Future studies can enhance the index by incorporating real-time and high-frequency data to reflect rapid economic changes more accurately. The framework can be expanded to include country-specific and regional indicators, allowing more contextual analysis of economic freedom. Additionally, integrating social and environmental factors can help assess inclusive and sustainable growth. The index can also be applied at state, city, or sectoral levels to support targeted policy reforms and long-term economic planning.

APPENDIX:

DATA SET LINK:

<https://drive.google.com/file/d/1EBIa1LtM3Ni2Uh3nekLB6>

FLASK FOLDER LINK

https://drive.google.com/drive/folders/1Uq5_xShFeSo9iMwPid146mbuR9csKk8x?usp=drive_link