

# PROJECT REPORT

Team id- LTVIP2025TMID47631

## 1. INTRODUCTION

### 1.1 Project Overview

**Measuring the Pulse of Prosperity** is a data storytelling initiative focused on analyzing economic freedom across countries and regions. Using Tableau as the primary visualization platform, this project brings together diverse indicators—ranging from regulatory efficiency and market openness to government integrity and fiscal health—and transforms them into a unified, interactive dashboard. The goal is to empower decision-makers and researchers with visually intuitive insights that reveal not just how free an economy is, but why it matters.

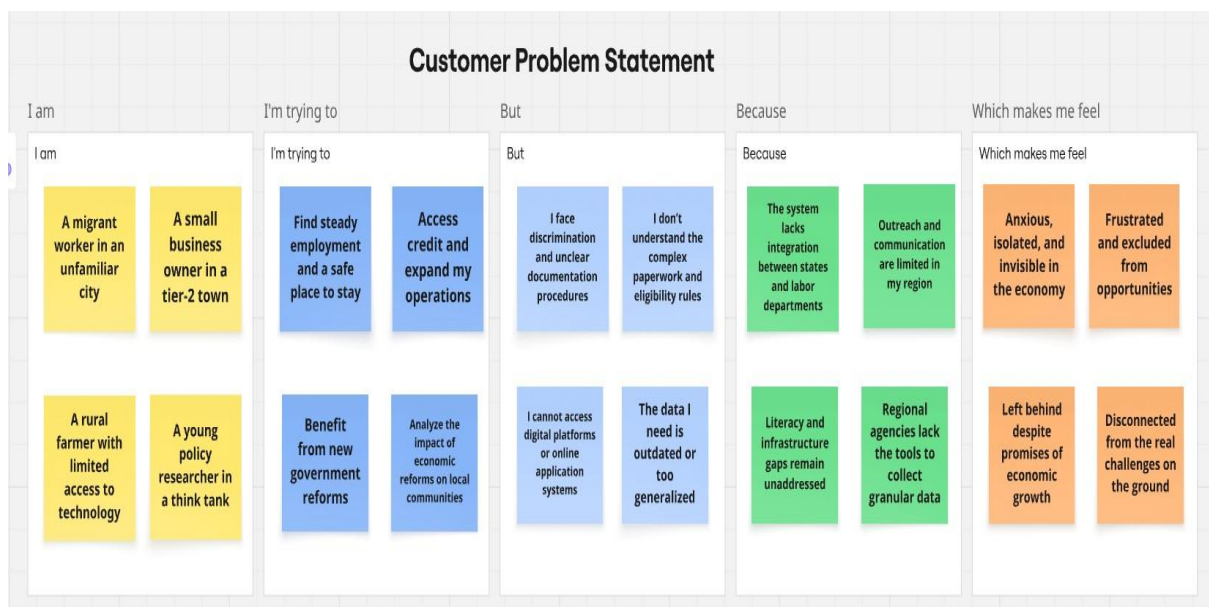
### 1.2 Purpose

This dashboard is designed to support policymakers, analysts, researchers, and civil society organizations in understanding the multidimensional nature of economic freedom. It enables exploration of historical trends, performance gaps, and regional disparities. By spotlighting behavioral patterns and policy correlations, it aims to foster data-informed decisions around economic reforms and sustainable development goals.

## 2.IDEATION PHASE

### 2.1 Problem Statement

Economic freedom metrics are scattered across sources and often delivered in static formats, making it difficult for stakeholders to compare, analyze, or derive actionable insights quickly. A lack of usercentered design in existing tools limits accessibility for non-technical audiences.



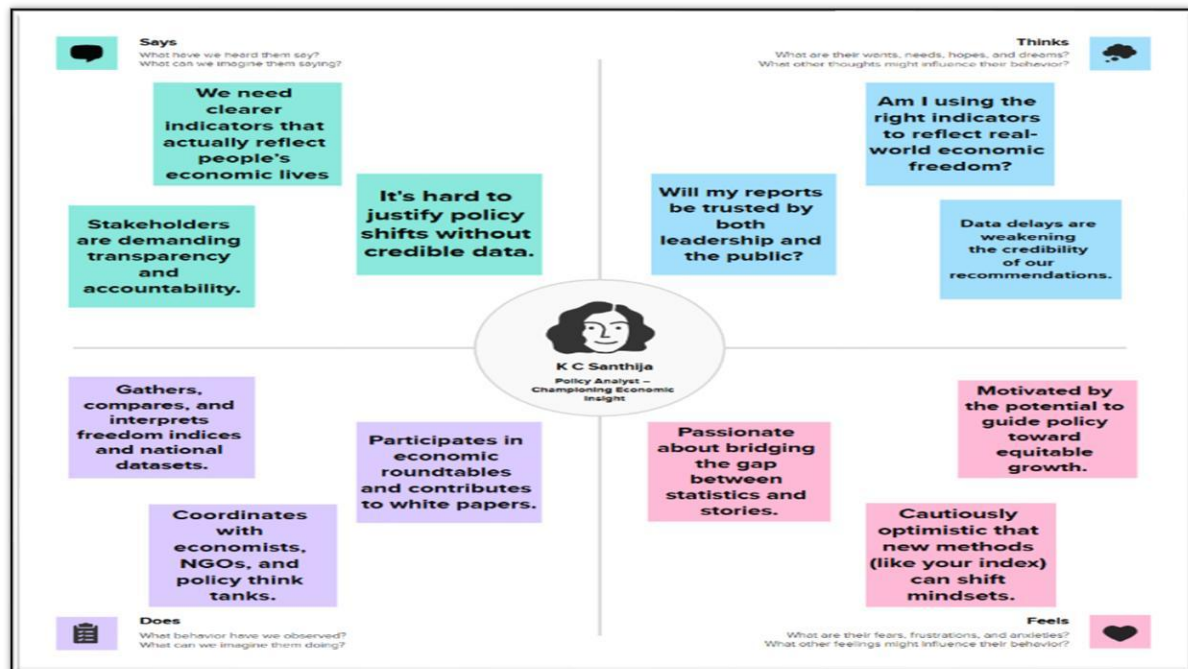
Team:santhija,Deepika,snehalatha,Sravanthi

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Problem Statement	I am	I'm trying to	But	Because	Which makes me feel
PS-1	A small business owner in a tier-2 town	Scale my enterprise and gain financial access	Regulatory procedures are confusing and hard to navigate	Government support programs are poorly communicated and localized	Frustrated and excluded from economic participation
PS-2	A migrant worker in an unfamiliar city	Find steady employment and a safe place to stay	I face discrimination and unclear documentation procedures	The system lacks integration between states and labor departments	Anxious, isolated, and invisible in the economy
PS-3	A rural farmer with limited access to technology	Benefit from new government reforms	I cannot access digital platforms or online application systems	Literacy and infrastructure gaps remain unaddressed	Left behind despite promises of economic growth
PS-4	A young policy researcher in a think tank	Analyze the impact of economic reforms on local communities	The data I need is outdated or too generalized	Regional agencies lack the tools to collect granular data	Disconnected from the real challenges on the ground

## 2.2 Empathy Map Canvas




Team:santhija,Deepika,snehalatha,Sravanthi

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## 2.3 Brainstorming

Template



### Brainstorm & idea prioritization

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

🕒 10 minutes to prepare  
🕒 1 hour to collaborate  
👥 2-8 people recommended

●

#### 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

1

##### Team gathering

Before you should spend time to find a virtual meeting space. Invite 5-8 relevant stakeholders or pre-work ahead.

2

##### Set the goal

Think about the problem you'll be focusing on solving in your brainstorming session.

3

##### Learn how to use the Ideation tool

Use the Ideation superpowers to run a happy and productive session.

[Open article](#)

1

#### 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

PROBLEM

How might we enable individuals—especially in rural and informal sectors—to access and benefit from economic freedom by making policy tools, data, and opportunities more inclusive, transparent, and region-specific?

22

#### Key rules of brainstorming

Focus on quantity and push for creative solutions

1

Stay on topic

2

Encourage wild ideas

3

Order judgment

4

Listen to others

5

Go for volume

6

If possible, be visual



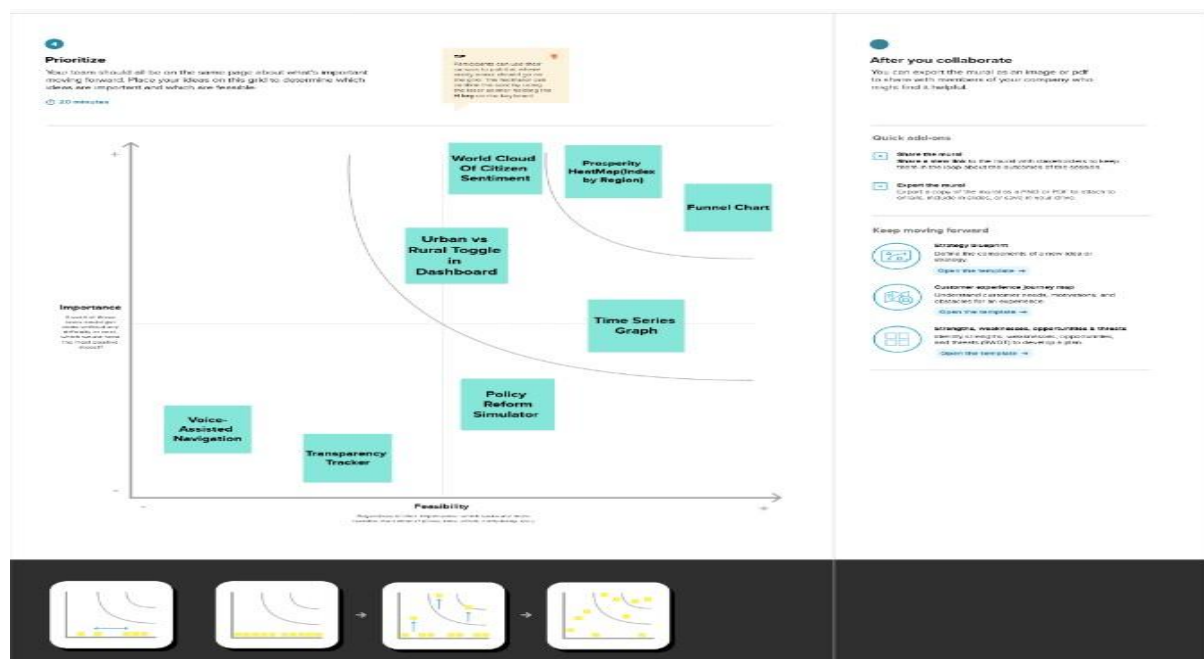
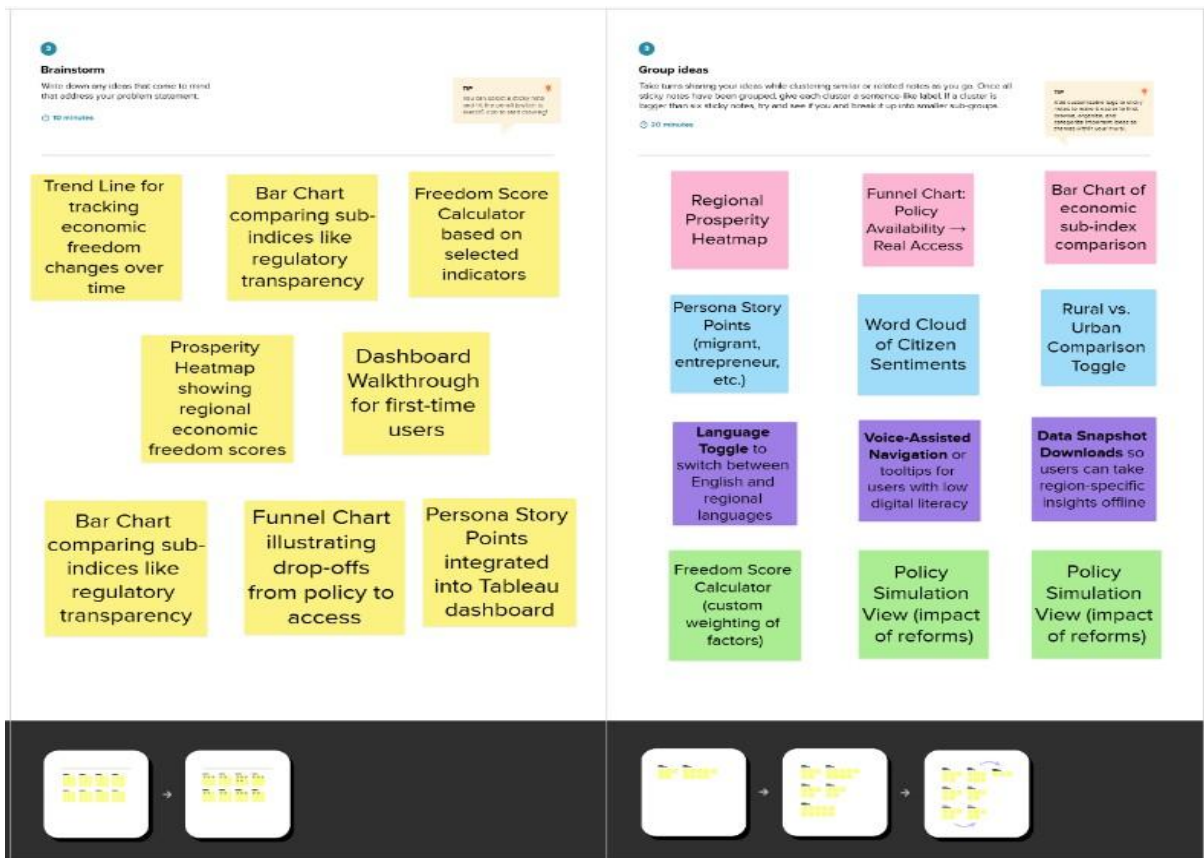
#### Need some inspiration?

See a handful of ideas already generated by others in your work.

[View examples](#)

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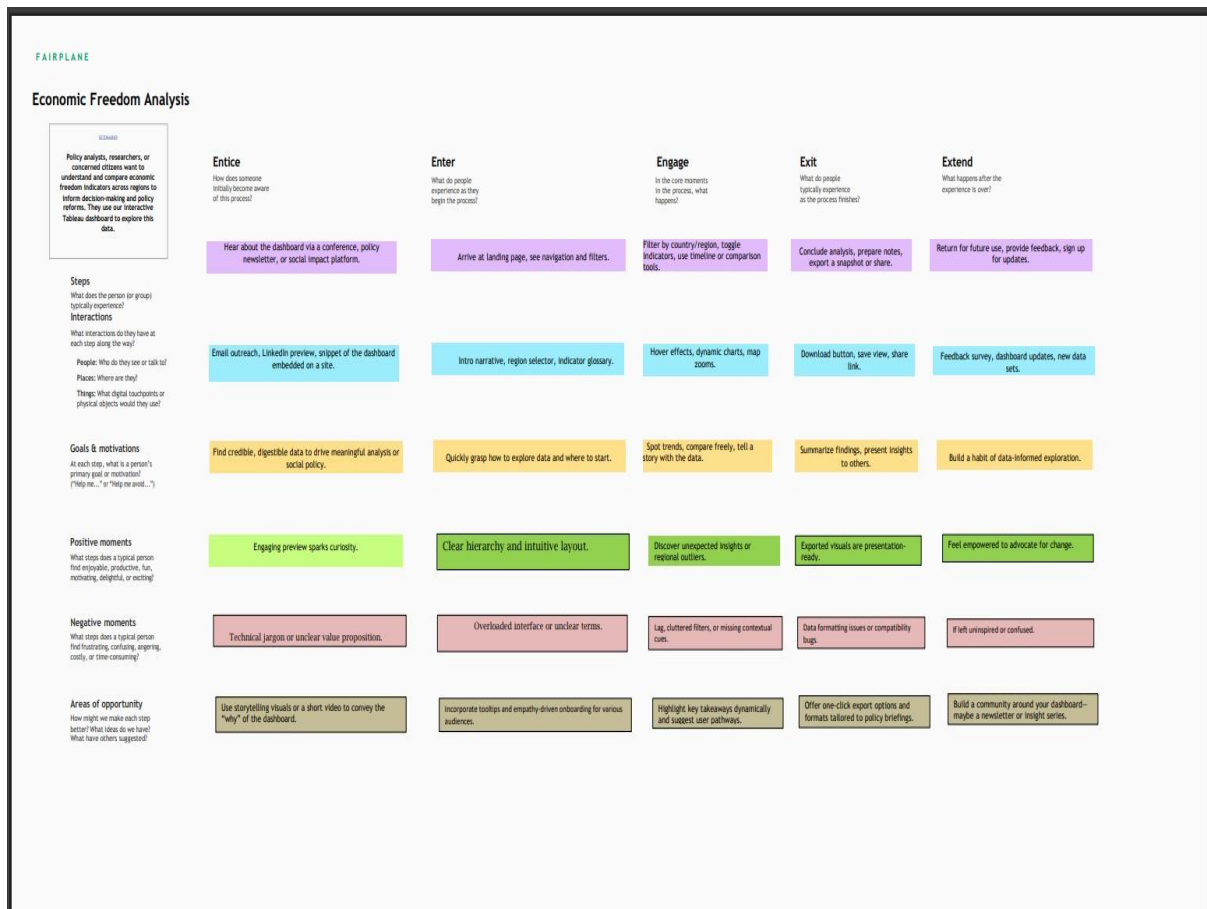
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## 3.REQUIREMENT ANALYSIS

This phase identifies what the dashboard must achieve to address user needs effectively. Functional requirements include data ingestion, filtering, visual storytelling, and export capabilities.

Nonfunctional requirements ensure responsiveness, accessibility, and fast performance. System requirements focus on tools like Tableau Desktop, Tableau Prep, and cloud storage. [3.1 Customer Journey Map](#)





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## 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	User Registration	<i>User Registration</i> Users can register through three options: a standard registration form, Gmail authentication, or LinkedIn login.
FR-2	User Confirmation	Once registered, users confirm their accounts either through an email verification link or via a one-time password (OTP) sent to their registered contact.
FR-3	Interactive Dashboards	The application offers an intuitive dashboard to view and explore economic freedom indicators. Users can apply filters based on country, year, or policy category for tailored insights.
FR-4	Policy Comparison Tools	Users can compare multiple countries across selected indicators and view side-by-side rankings or performance gaps.
FR-5	Storytelling Walkthrough	A guided dashboard experience presents high-level trends and insights using Tableau's story feature, making the data more accessible and impactful.
FR-6	Data Upload (Admin Only)	Administrators can upload new datasets, which automatically initiate backend recalculations to refresh index values and dashboards.

### Non-functional Requirements:

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

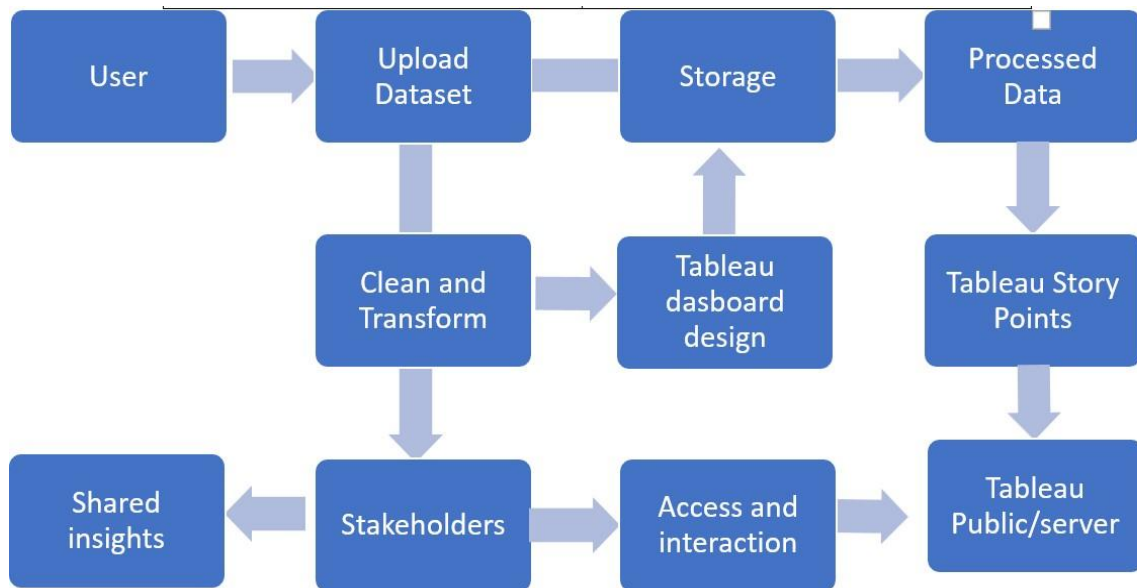
FR No.	Non-Functional Requirement	Description
NFR-1	Usability	Features a clean dark-mode UI, tooltips, intuitive filter panels, and readable fonts to reduce user fatigue and confusion.
NFR-2	Security	Authentication is handled through OAuth2; all traffic is encrypted (HTTPS), and role-based access controls are in place along with activity logs.
NFR-3	Availability	The platform targets 99.9% uptime using cloud redundancy and failover mechanisms to ensure continuous access.
NFR-4	Performance	Dashboards are optimized to load in under 5 seconds, even with complex filters or calculations enabled.
NFR-5	Data Accuracy	Every index value and ranking is traceable to its source data and goes through validation checks before being published.
NFR-6	Scalability	The system is designed to scale for additional metrics, machine learning modules, and broader geographic coverage without major architectural changes.

## 3.3 Data Flow Diagram

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## 3.4 Technology Stack

### Technology Stack for "Index of Economic Freedom Analysis".

Component	Tool or Technology	Purpose
Data Source	CSV, Excel, World Bank API	Collect economic indicators, regional metadata
Visualization	Tableau Desktop or Public	Create interactive dashboards and economic freedom index
Storage	Google Drive or AWS S3	Stored Raw data, Processed Results, and visual assets
Collaboration	Google Docs, Slack, Notion	Share insights notes empathy map with your team
Deployment	Tableau Public, Embedded Tableau	Publish dashboards for stakeholder engagement

## 4. PROJECT DESIGN

### 4.1 Problem Solution Fit

Team:santhija,Deepika,snehalatha,Sravanthi

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**Problem-Solution Fit canvas**

Purpose / Vision: \_\_\_\_\_ Version: \_\_\_\_\_

<b>1. CUSTOMER SEGMENT(S)</b> <span>CS</span> Policy analysts, researchers, government advisors.	<b>6. CUSTOMER LIMITATIONS</b> <span>CL</span> EG. BUDGET, DEVICES Tight budgets, simple devices, low tech expertise.	<b>5. AVAILABLE SOLUTIONS</b> <span>AS</span> PLUSSES & MINUSES PDFs (trusted, static), raw data (detailed, complex), tools (limited scope).
<b>2. PROBLEMS / PAINS</b> <span>PR</span> + ITS FREQUENCY Difficulty comparing economic data; recurs during policy or research work.	<b>9. PROBLEM ROOT / CAUSE</b> <span>RC</span> No simple tool to convert complex data into usable insight.	<b>7. BEHAVIOR</b> <span>BE</span> + ITS INTENSITY High engagement when insights are needed fast.
<b>3. TRIGGERS TO ACT</b> <span>TR</span> Reports, policy reviews, academic projects, or funding deadlines.	<b>10. YOUR SOLUTION</b> <span>SL</span> An intuitive Tableau dashboard for interactive, visual data exploration.	<b>8. CHANNELS of BEHAVIOR</b> <span>CH</span> ONLINE Online dashboards, LinkedIn, policy forums. OFFLINE events.
<b>4. EMOTIONS</b> <span>EM</span> BEFORE / AFTER Before: Confused and frustrated. After: Clear and confident.		

Problem-Solution Fit canvas is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License. Designed by Dana Neepitshina / @salsalabs.co - see better ideas to customer behavior and increase solution adoption probability.

IdeaHackers .IN

## 4.2 Proposed Solution

S.No.	Parameter	Description
1.	<b>Problem Statement (Problem to be solved)</b>	Stakeholders struggle to access, interpret, and compare economic freedom data across regions due to fragmented sources and static reports, limiting their ability to make informed decisions.
2.	<b>Idea / Solution description</b>	An interactive Tableau dashboard that consolidates key economic freedom indicators, enabling users to explore trends, compare countries, and extract insights through filterable visuals and intuitive storytelling.
3.	<b>Novelty / Uniqueness</b>	Unlike traditional reports or indexes, this solution emphasizes dynamic, user-driven exploration. It integrates visual storytelling with behavioral interactivity, making complex data digestible for both technical and non-technical users.
4.	<b>Social Impact / Customer Satisfaction</b>	The dashboard empowers policymakers, researchers, and development institutions to make evidence-based decisions.
5.	<b>Business Model (Revenue Model)</b>	Free access for educational and government use; potential monetization through premium analytics, consulting partnerships, or licensing to research institutions and think tanks.
6.	<b>Scalability of the Solution</b>	Highly scalable—can integrate additional indicators, expand regionally or globally, and embed in policy portals, academic hubs, or public data platforms.

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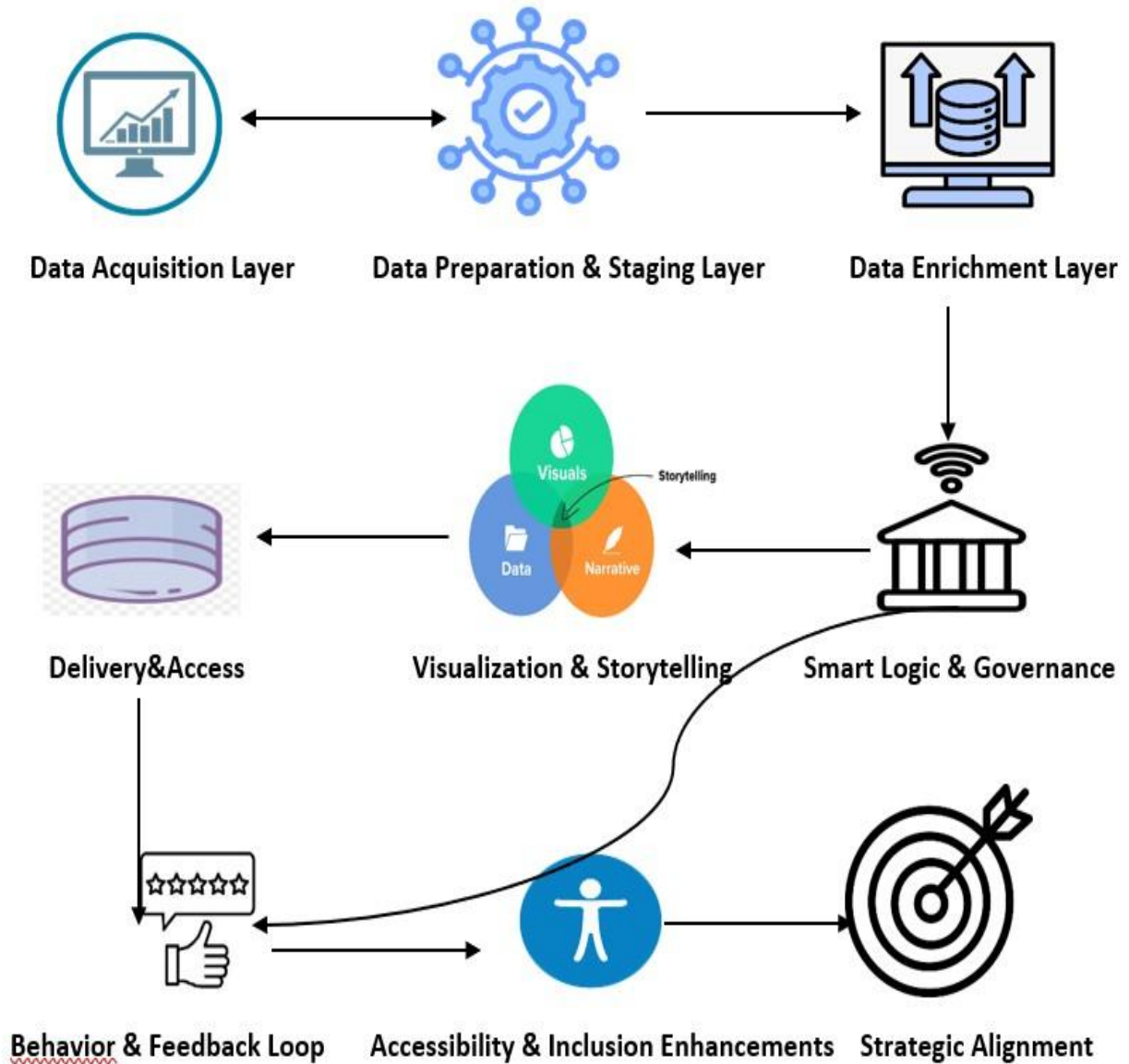


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## 4.3 Solution Architecture

### Example - Solution Architecture Diagram:



## PROJECT PLANNING & SCHEDULING

### 5.1 Project Planning

Team:santhija,Deepika,snehalatha,Sravanthi

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Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Data Integration	USN-1	As a developer, I can connect Tableau to the processed economic data file.	2	High	Kandati.Chenchu Santhija N C Deepika Kalavalapudi.Snehalatha Jadala Sravanthi
Sprint-1	Data Preprocessing	USN-2	As an analyst, I can clean and normalize datasets for regional/yearly comparison.	3	High	Kandati.Chenchu Santhija N C Deepika Kalavalapudi.Snehalatha Jadala Sravanthi
Sprint-2	Dashboard Filters	USN-3	As a user, I can filter visuals by region, year, and indicator category.	2	High	Kandati.Chenchu Santhija N C Deepika Kalavalapudi.Snehalatha Jadala Sravanthi
Sprint 2	Metrics Design	USN-4	As an analyst, I can create ranking and score change calculations.	2	Medium	Kandati.Chenchu Santhija N C Deepika Kalavalapudi.Snehalatha Jadala Sravanthi
Sprint-3	Dashboard Layout	USN-5	As a user, I can view dashboards with KPIs, graphs, and intuitive navigation.	3	High	Kandati.Chenchu Santhija N C Deepika Kalavalapudi.Snehalatha Jadala Sravanthi
Sprint-3	Visualization Build	USN-6	As a user, I can interact with a map, bar graph, and line chart.	4	High	Kandati.Chenchu Santhija N C Deepika Kalavalapudi.Snehalatha Jadala Sravanthi
Sprint-4	Story Integration	USN-7	As a stakeholder, I can navigate a story guide that explains key insights.	3	Medium	Kandati.Chenchu Santhija N C Deepika Kalavalapudi.Snehalatha Jadala Sravanthi
Sprint-4	Publishing	USN-8	As an admin, I can publish and share the dashboard with users.	1	Medium	Kandati.Chenchu Santhija N C Deepika Kalavalapudi.Snehalatha Jadala Sravanthi

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	20	1 Day	28 June 2025	28 June 2025	20	28 June 2025
Sprint-2	20	1 Day	28 June 2025	28 June 2025	20	28 June 2025
Sprint-3	20	1 Day	28 June 2025	28 June 2025	20	28 June 2025
Sprint-4	20	1 Day	28 June 2025	28 June 2025	20	29 June 2025
Sprint-5	20	1 Day	28 June 2025	28 June 2025	20	29 June 2025
Sprint-6	20	1 Day	28 June 2025	28 June 2025	20	30 June 2025
Sprint-7	20	1 Day	28 June 2025	28 June 2025	20	30 June 2025

## 6. FUNCTIONAL AND PERFORMANCE TESTING


### 6.1 Performance Testing

Team:santhija,Deepika,snehalatha,Sravanthi

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S.No.	Parameter	Screenshot / Values
1.	Data Rendered	The index_of_economic_freedom.csv dataset has 184 rows and 32 columns, capturing key indicators that measure the economic prosperity of different countries. Ask ChatGPT
2.	Data Preprocessing	Dataset already included country names, we found the country ID redundant and removed it. Additionally, a null value was found in the FDI inflow column, which we replaced with 0 to maintain consistency in the data
3.	Utilization of Filters	<b>Filters:</b> 1.Region 2.country Name 3.Measure Names  <b>Parameters:</b> 1.Top N 2.Goverment_Size parameter 3.Rule_of_law parameter 4.Regulatory Efficiency
4.	Calculation fields Used	<b>1. Government Size Score</b> $([Govt\ Spending] + [Tax\ Burden] + [Fiscal\ Health]) / 3$  <b>2. Government_Size metric</b> IF [Government_Size parameter] = "Government Spending" THEN [Govt Spending] ELSEIF [Government_Size parameter] = "Tax Burden" THEN [Tax Burden] ELSEIF [Government_Size parameter] = "Fiscal Health" THEN [Fiscal Health] ELSE $([Govt\ Spending] + [Tax\ Burden] + [Fiscal\ Health]) / 3$ END

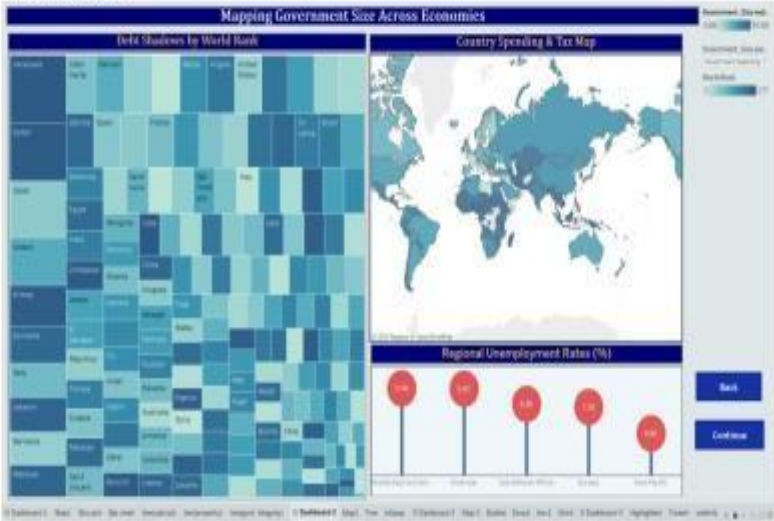
		<b>3. Regulatory Efficiency Metric</b> IF [Regulatory Efficiency Parameter] = "Business Freedom" THEN [Business Freedom] ELSEIF [Regulatory Efficiency Parameter] = "Labor Freedom" THEN [Labor Freedom] ELSEIF [Regulatory Efficiency Parameter] = "Monetary Freedom" THEN [Monetary Freedom] ELSE $([Business\ Freedom] + [Labor\ Freedom] + [Monetary\ Freedom]) / 3$ END  <b>4. Rule of Law score</b> $([Property\ Rights] + [Judicial\ Effectiveness] + [Government\ Integrity]) / 3$  <b>5. Rule_of_law metric</b> CASE [Rule_of_Law parameter] WHEN "Property Rights" THEN [Property Rights] WHEN "Judicial Effectiveness" THEN [Judicial Effectiveness] WHEN "Government Integrity" THEN [Government Integrity] WHEN "Rule of Law Score" THEN $([Property\ Rights] + [Judicial\ Effectiveness] + [Government\ Integrity]) / 3$ END
5.	Dashboard design	No of Visualizations / Graphs —  <b>Dashboard 1:</b> 

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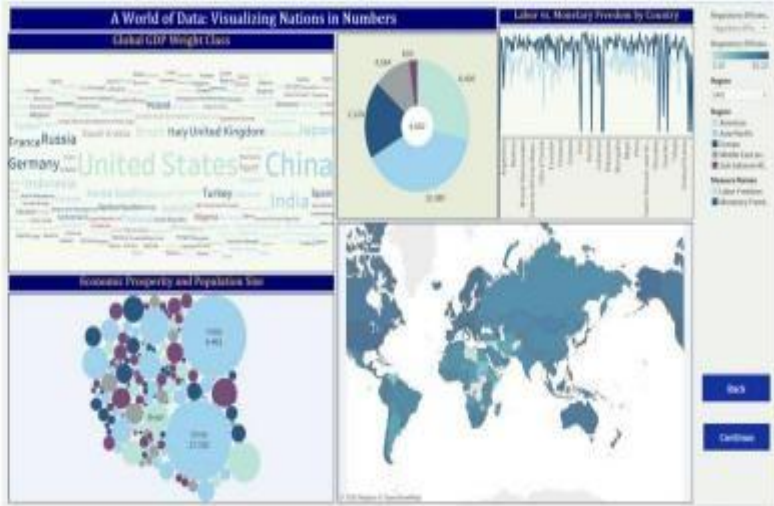
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Dashboard 2:



Dashboard 3:




Dashboard 4:



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6	Story Design	<p>No of Visualizations / Graphs –</p> <p><b>Map chart 1:</b> A global view of Rule of Law based on Property Rights, Judicial Effectiveness, and Government Integrity</p> <p><b>Map chart 2:</b> Overview of Government Size, highlighting spending levels, tax burden, and fiscal health across countries</p> <p><b>Map Chart 3:</b> Illustrates Regulatory Efficiency through Business, Labor and Monetary Freedom scores across countries</p> <p><b>Highlighted Table:</b> Open Market indicators, highlighting variations in trade, investment, and financial freedom across countries</p> <p><b>Line chart:</b> Effect of Property rights, government integrity, judicial effectiveness on 2022 score</p> <p><b>Bar chart</b> Finland leads in Rule of Law, with Europe dominating overall scores</p> <p><b>Tree map:</b> Venezuela holds the highest public debt as a percentage of GDP globally</p> <p><b>Word Chart:</b> The China leads the world with the highest GDP in billions in the year 2022</p> <p><b>Bubble chart:</b> China and India top the world with the highest population figures</p>
		<p><b>Lollipop Chart:</b> The Middle East and North Africa region leads with the highest average public debt levels</p> <p><b>Donut chart:</b> Asia-Pacific leads in GDP and FDI inflow, while Sub-Saharan Africa records the lowest</p> <p><b>Funnel chart:</b> Europe ranks highest in Trade Freedom, while the Middle East and North Africa score the lowest</p> <p><b>Waterfall chart:</b> The waterfall chart illustrates the running total of GDP per capita across countries</p>



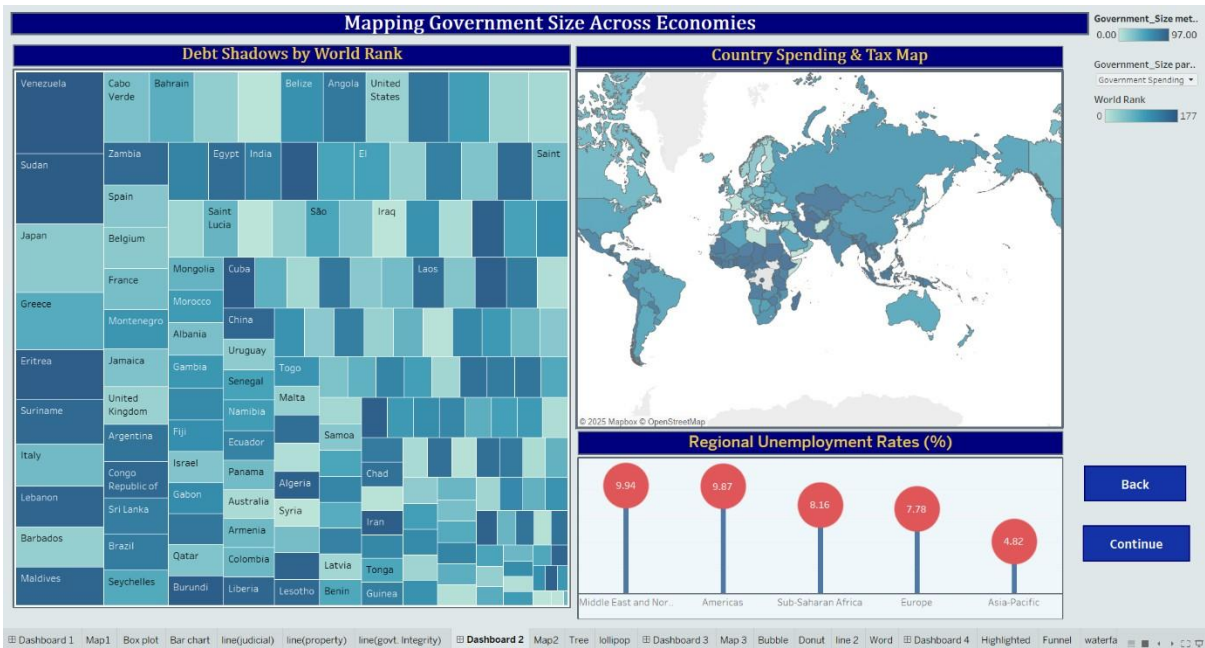
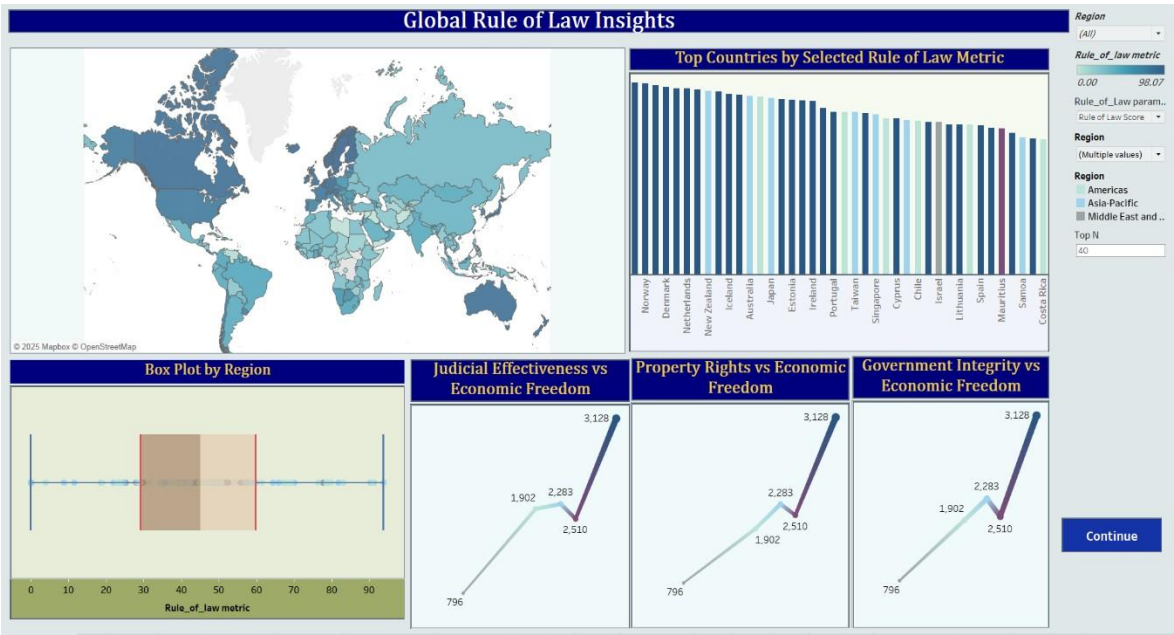
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7.RESULTS:

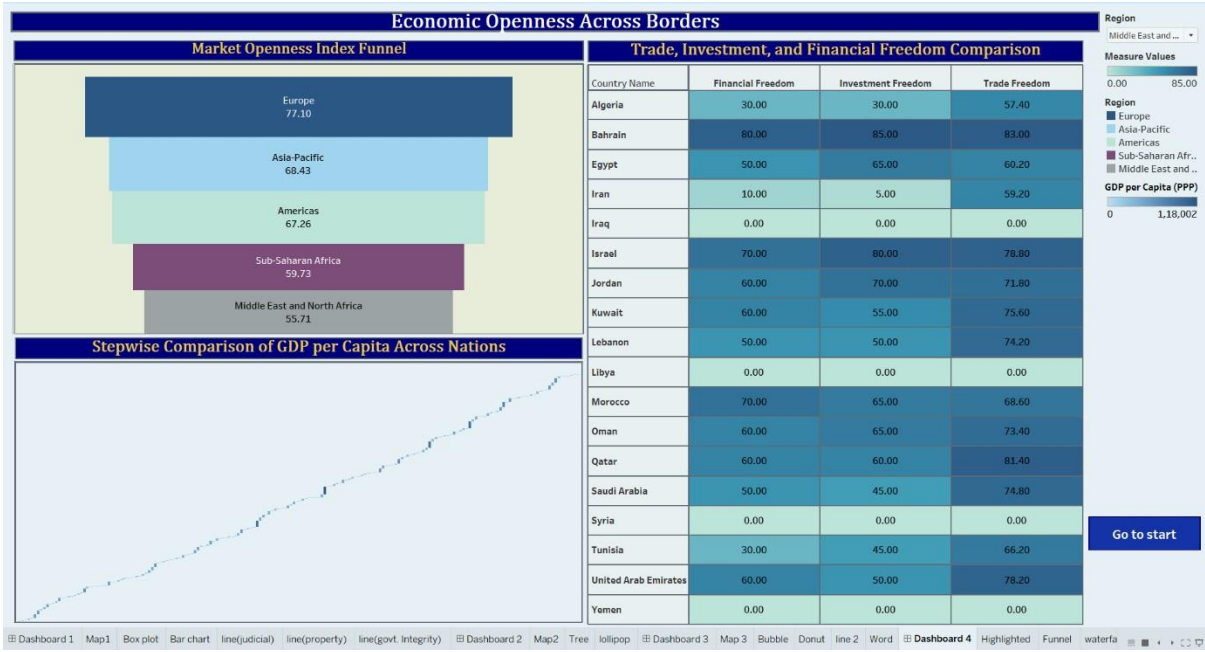
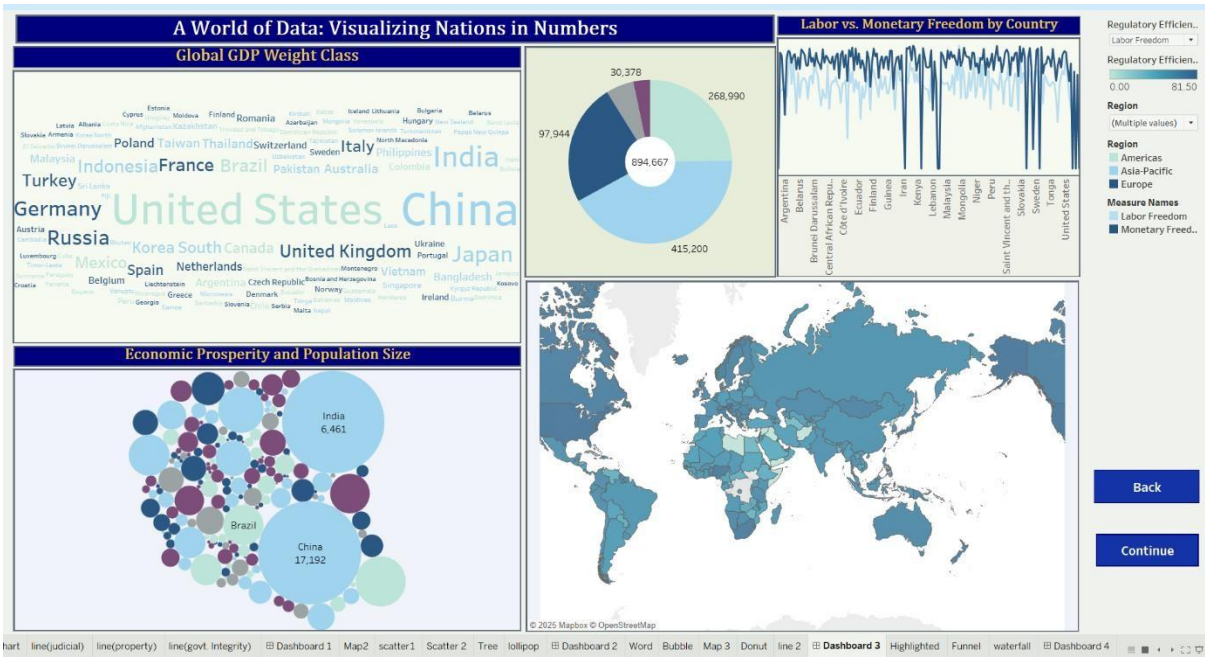
7.1 Output Screenshots:

Dashboards:



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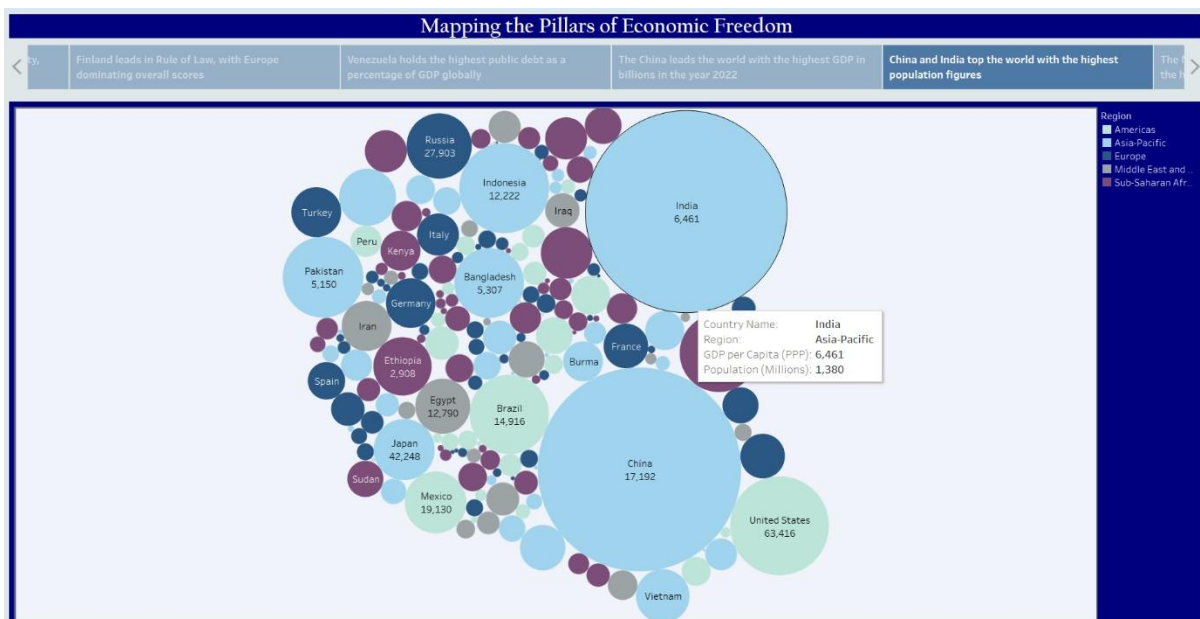
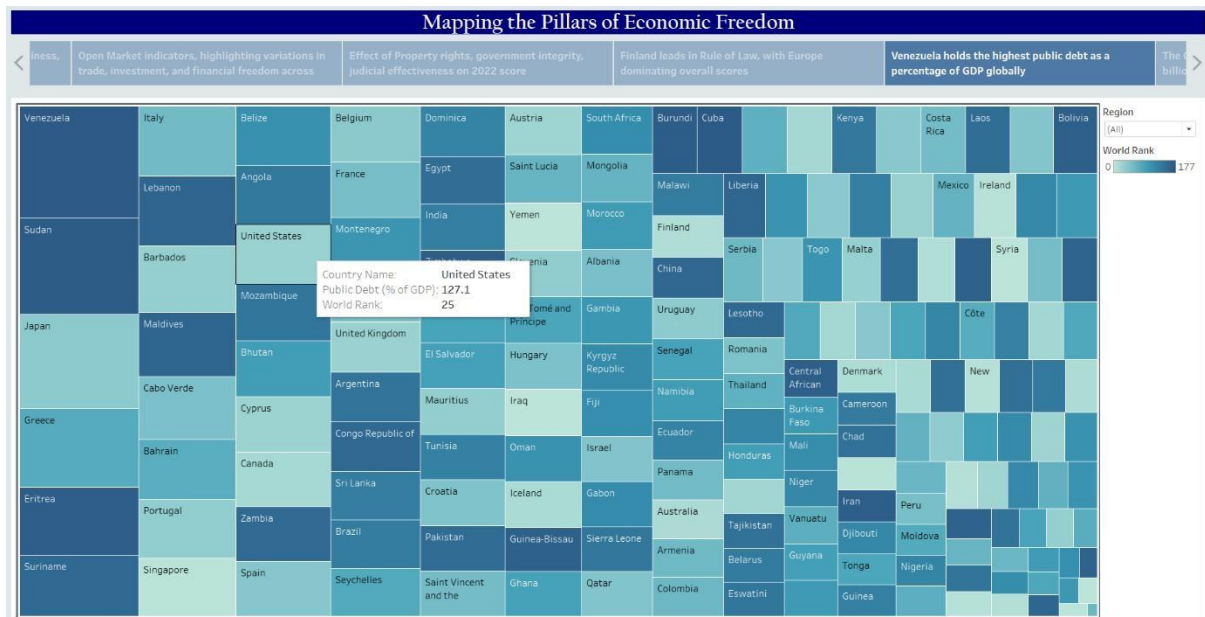


Stories:

Team:santhija,Deepika,snehalatha,Sravanthi

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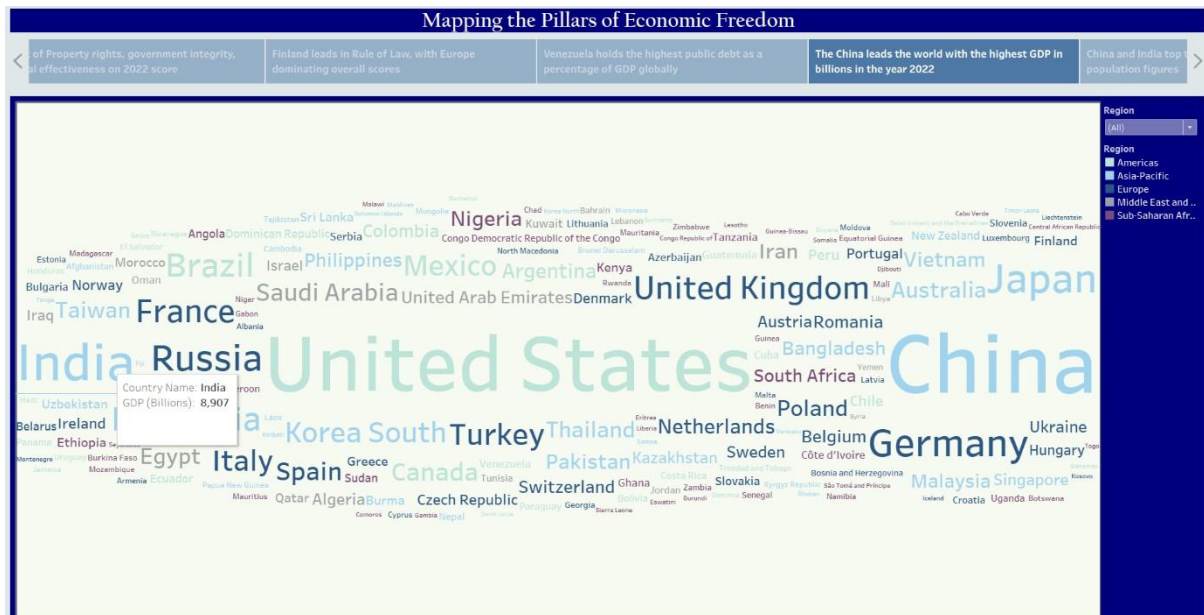
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## 8.ADVANTAGES AND DISADVANTAGES:

## Advantages

1. Covers all key aspects of economic freedom
2. Easy to understand with interactive visuals
3. Helps compare countries and regions
4. Useful for analysis and decision-making

## Disadvantages

1. Based on limited or outdated data
2. May oversimplify complex economies
3. Some charts can confuse new users
4. Possible bias due to data availability

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## 9. CONCLUSION:

In conclusion, this project provides a comprehensive analysis of global economic freedom through four key pillars—Rule of Law, Government Size, Regulatory Efficiency, and Open Markets. Interactive dashboards and diverse visualizations make complex economic data accessible and insightful. Despite some limitations in data recency and visualization complexity, the project effectively highlights global disparities and patterns. Overall, it serves as a valuable tool for understanding how economic policies shape prosperity worldwide.

## 10. FUTURE SCOPE:

The project can be expanded with real-time or more recent economic data for improved relevance. Future versions could include predictive analytics to forecast changes in economic freedom. Integrating more social indicators like education or health could provide deeper insights. Additionally, embedding user interactivity and region-specific filters can enhance decision-making and user engagement.

## 11. APPENDIX:

Dataset link: [Dataset](#)

Project Demo: [Demo](#)