|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Team ID** | **Project Name** | **Maximum Marks** |
| 16-06-2025 | LTVIP2025TMID48223 | Measuring the Pulse of Prosperity: An Index of Economic Freedom Analysis |  |

# Level 0 – Context Diagram

This is the highest-level overview of the Index of Economic Freedom Analysis system. It shows how external users interact with the system.

Entities:  
• Economic Research Analyst (User)  
• Economic Freedom Analysis System  
• Stakeholders / Decision-Makers

Data Flows:  
• Analyst provides raw Index and macroeconomic data  
• System processes data and generates visual insights  
• Stakeholders receive insights via dashboards or reports

Diagram Representation:  
[Economic Research Analyst] → (Economic Freedom Analysis System) → [Stakeholders / Decision-Makers]

# Level 1 – Detailed DFD for Economic Freedom Analysis

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Step** | **Process** | **Input** | **Output** | **Data Store** |
| 1 | Collect & Import Data | Raw Index CSV/API, World Bank stats | Structured, validated tables | Raw\_Index\_Data |
| 2 | Clean & Standardise | Raw tables | Cleaned dataset | Cleaned\_Data |
| 3 | Derive Metrics & Pillar Scores | Cleaned data | Pillar scores, Composite Index | Derived\_Metrics |
| 4 | Define Filters & Segments | Derived metrics | Region/Year filters, Pillar segments | Filter\_Definitions |
| 5 | Build Visualisations | Filtered metrics | Choropleth, heatmaps, trends | Viz\_Assets |
| 6 | Generate Dashboards & Stories | Visualisations | Tableau Dashboards, Stories | Dashboards\_Repo |
| 7 | Publish & Share | Final Dashboards | Web-embedded Dashboard, PDF | Published\_Content |
| 8 | Review & Iterate | Stakeholder feedback | Refined visuals, KPIs | Revised\_Workbooks |

# Explanation of Each Process in Project Context

**1. Collect & Import Data**

Heritage Foundation’s Index data and macroeconomic indicators are collected and imported into the system.

**2. Clean & Standardise**

Missing values are handled, country names are standardised, and data is formatted for analysis.

**3. Derive Metrics & Pillar Scores**

Calculate scores for Rule of Law, Government Size, Regulatory Efficiency, and Open Markets pillars.

**4. Define Filters & Segments**

Create filters for Region, Year, Income Group and separate views per economic pillar.

**5. Build Visualisations**

Create choropleth maps, radar charts, heatmaps, and scatter plots to visualize the Index data.

**6. Generate Dashboards & Stories**

Develop dashboards and storyboards in Tableau for visual storytelling of trends.

**7. Publish & Share**

Dashboards are embedded into a Flask app and shared internally or publicly.

**8. Review & Iterate**

Feedback from stakeholders leads to updates and refinements in KPIs, filters, and visuals.