

Performance Testing

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Team ID	LTVIP2026TMIDS24940
Project Name	Measuring the Pulse of Prosperity: An Index of Economic Freedom Analysis
Maximum Marks	4 Marks

Performance Testing – Measuring the Pulse of Prosperity: An Index of Economic Freedom Analysis

Objective

To evaluate the performance, responsiveness, and reliability of the Tableau dashboard while interacting with filters, multiple visualizations, and country comparisons through the Tableau Public platform.

The testing verifies that the dashboard loads correctly, displays accurate data, and responds smoothly to user interactions

Performance Testing Parameters

1. Filter Interaction Testing

Filters Tested:

- Country
- Region
- Economic Indicators

Result:

- All charts updated correctly when filters were applied.
- The dashboard responded quickly to user selections.
- No incorrect values or visualization errors were observed.

2. Visualization Load Testing

Visualizations Included:

- Scatter plot (Economic Freedom vs GDP per capita)
- Bar charts (country comparison)
- World map (regional distribution)
- Indicator comparison charts
- Unemployment comparison

Result:

- All visualizations loaded successfully.
- Dashboard opened properly on Tableau Public.
- Charts displayed accurate and consistent data.

3. Data Accuracy Testing

Measures Used:

- Economic Freedom Score
- GDP per Capita
- Unemployment Rate
- Inflation Rate

Operations Verified:

- Aggregations and comparisons across countries

- Correct mapping of countries on world map
- Correct numerical values in tooltips

Result:

- Values displayed matched the dataset.
- No mismatch between dataset and visualization.
- Tooltips showed correct country-level statistics.

4. Multiple Filter Combination (Stress Testing)

Test Case:

Selecting multiple filters simultaneously (example: Region = Asia and selecting multiple countries).

Result:

- Dashboard updated all visualizations correctly.
- No crashes or freezes occurred.
- Charts remained consistent after multiple selections.

Final Outcome

The Tableau dashboard performed efficiently with stable behavior and acceptable response time. The system handled multiple user interactions without performance issues and provided reliable analytical results.