📘 Internship Report

Data Governance and Security Dashboard (Using ESG Data)

1. Introduction

Internship Organization: Unified Mentor Pvt Ltd
Internship Role: Data Analyst Intern
Project Title: Data Governance and Security Dashboard
Tools Used: Tableau, SQL, Excel
Duration: 3 Months
Name : Himanshu Kaushik

The purpose of this project was to build an interactive dashboard using ESG (Environmental, Social, Governance) indicators provided by the World Bank to assess and visualize country-level sustainability metrics. The dashboard offers insights into data governance practices and security-related ESG trends across different nations.

2. Objective of the Project

• Create a visually rich and interactive dashboard in Tableau using ESG data.

• Enable filtering and exploration by ESG category (Environment, Social, Governance).

• Visualize and compare country-level ESG indicators effectively.

• Provide meaningful insights using ESG metadata and performance indicators.

3. Dataset Overview

The dataset used was the **World Bank ESG Draft Dataset**, which includes the following CSV files:

• ESGCountry.csv: Contains country codes and names.

• ESGCountry-Series.csv: Maps country codes to ESG series codes with values.

• ESGData.csv: Raw ESG data for different years.

• ESGFootNote.csv: Footnotes and special remarks per data point.

• ESGSeries.csv: Metadata about each ESG indicator including category (E, S, G).

• ESGSeries-Time.csv: Time-series breakdown of ESG values by country and indicator.

4. Data Preparation

Key Fields Used:

Field	Description
Country Code	Country ISO codes like "IND", "USA", "GBR"
Series Code	Represents ESG indicators (e.g., CO2, GDP, etc.)
Value	ESG data values for each country and series
Category	Environment, Social, or Governance
Year	Year of observation

Steps Taken:

1. Merged multiple CSV files to create a unified data model.

2. Cleaned and filtered missing or redundant entries.

3. Created calculated fields in Tableau for ESG trend tracking.

4. Mapped Series Codes with descriptions and categories using metadata.

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5. Tableau Dashboard Design

Main Components:

A. Map Visualization

- Countries plotted based on ESG indicator.

- Color intensity represents indicator value.

- Filters for Environment, Social, Governance.

B. Bar Chart

- Comparison of selected indicator across countries.

- Dynamic sorting enabled.

C. Description Panel

- Tooltip shows ESG Series description on hover.

- Includes country name, series name, value.

D. Interactive Filters

- Dropdowns for:

o ESG Category

o Country

o Specific Indicator

- Time range selection

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6. Key Insights Derived

Insight	Description
Top ESG Performers	Countries with highest scores in each ESG category identified.
Low Performing Regions	Underperforming countries in Governance and Environmental indicators.
Correlations	Potential correlation noticed between high social ESG scores and stable governance
Trends	Some countries show consistent improvement, while others remain stagnant over years

7. Challenges Faced

- **Data Normalization**: ESG indicators had varied scales and units, requiring normalization for accurate visual comparison.

- **Missing Data**: Some countries lacked data for certain years or series codes.

- **Performance Optimization**: Merging large CSVs in Tableau required performance tuning and data blending logic.

8. Tools & Techniques Used

Tool	Purpose
Tableau	Visualization and dashboard building
Excel	Initial cleaning and exploration
SQL	Querying and joining multiple tables

9. Conclusion

The **Data Governance and Security Dashboard** project successfully demonstrated the power of data visualization in analyzing ESG indicators across countries. The dashboard aids in understanding global sustainability efforts and highlights areas for policy and investment focus. It also showcases effective data governance practices, offering a replicable model for future dashboards.

10. Screenshots