

Internship Program Plan: Trade and Customs Analytics

Program Overview

Objective: Equip interns with skills in trade data analysis, policy evaluation, and logistics optimization by exploring real-world customs datasets.

Program Modules and Details

Orientation and Fundamentals

- **Introduction to the Program:** Interns will gain an understanding of the overall internship objectives, tools, and expected outcomes.
- **Customs and Trade Basics:** A comprehensive overview of HS Codes, the differences between FOB and CIF values, and the customs process. This will include real-world examples to contextualize the learning.
- **Data Ethics and Privacy:** Detailed instruction on the importance of deidentification and confidentiality when handling sensitive data.

Data Cleaning

- **Data Cleaning Techniques:** Interns will learn to detect and address inconsistencies in data, such as errors in HS Codes, Mass (KG), or formatting issues in monetary values and dates.

Exploratory Data Analysis (EDA)

- **Descriptive Analysis:** Interns will explore the dataset to identify key trends such as:
 - Total imports segmented by HS Code.
 - Analysis of top countries of origin and supply.
 - Tax revenue contributions by product categories.
- **Visualization:** Guidance on creating effective visualizations using tools like Matplotlib, Seaborn, or Tableau. Interns will develop dashboards to present insights clearly and professionally.

Advanced Analysis and Policy Insights

- **Statistical Analysis:**
 - Explore correlations between variables such as FOB/CIF values and total tax amounts.
 - Identify seasonality or periodic trends in trade volumes.
- **Policy Evaluation:** Interns will assess the effectiveness of current tax structures and provide recommendations for potential improvements based on their analysis.
- **Report Writing:** Develop a detailed report summarizing findings and actionable insights. This report

will be geared toward policymakers and stakeholders.

Final Presentation and Documentation

- Interns will prepare and deliver presentations showcasing their analysis, findings, and recommendations. These presentations will help hone their communication skills and ability to convey complex information clearly.
- The program will culminate in the documentation of all projects and learnings, ensuring a comprehensive record of the work completed during the internship.

KPIs:

1. Import Volume and Value KPIs

- Total Import Value (FOB & CIF)
- Average Import Value per Transaction
- Top Importing Countries by Value
- Top Importers by Volume
- Average Import Mass per Transaction

2. Taxation and Revenue KPIs

- Total Tax Collected
- Average Tax per Transaction
- Tax-to-Value Ratio
- Top Tax-Contributing Importers

3. Logistics and Shipment KPIs

- Total Number of Shipments
- Average Number of Containers per Importer
- Most Common Container Size
- Total Weight of Imports by Country of Origin

4. Compliance and Processing KPIs

- Timeliness of Tax Payments
- Number of Transactions per Custom Office
- Most Frequent HS Codes
- Percentage of Imports from High-Risk Countries

Learning Outcomes

1. **Data Literacy:** Parsing and analyzing structured datasets.
2. **Domain Knowledge:** Understanding customs regulations and trade patterns.
3. **Analytical Skills:** Applying statistical methods and visualization tools to extract insights.