

PROJECT DESCRIPTION:

The **Global Export Analysis Project** focuses on examining the export trends of a country using structured data, including HS codes, commodity details, region, state, supplier, quantity, pricing, freight charges, and export modes. The goal is to identify key export commodities, top-performing regions, supplier contributions, and cost structures (freight, duty, and price). Additionally, the project provides insights into export destinations, transportation efficiencies, and year-over-year growth, enabling data-driven decision-making to optimize trade operations and improve profitability.

Column Descriptions

1. **HSCode (Harmonized System Code)**
 - A standardized code used internationally to classify traded goods.
 - **Purpose:** Identify the type of goods being exported for duty/tariff calculations and trade analysis.
2. **Commodity Code**
 - A code that categorizes the specific goods being exported.
 - **Purpose:** Further breakdown of items for detailed analysis within the HS classification.
3. **State Code**
 - Represents the state from which the goods are being exported.
 - **Purpose:** Analyze state-wise export trends and identify top contributing states.
4. **Supplier Code**
 - A unique identifier for the supplier of the goods.
 - **Purpose:** Track supplier performance and contribution to exports.
5. **Exported Month**
 - The month when the goods were exported.
 - **Purpose:** Perform time-based analysis (seasonal trends or month-over-month comparisons).
6. **Year**
 - The year when the goods were exported.
 - **Purpose:** Conduct year-over-year (YOY) growth analysis and identify long-term trends.
7. **Price**
 - The price of the goods being exported (usually per unit).
 - **Purpose:** Calculate total revenue and profitability.
8. **Quantity**
 - The volume of goods exported (measured in the specified UoM).
 - **Purpose:** Analyze export volume trends and capacity.
9. **Region Code**
 - Code representing the region associated with the export.
 - **Purpose:** Region-wise analysis of export performance.
10. **Country Code**
 - Code representing the country to which the goods are exported.
 - **Purpose:** Analyze country-specific trends and market demand.
11. **Exported To Code**
 - A specific code identifying the destination country or market.

- **Purpose:** Granular level market analysis.
12. **Unit of Measure (UoM)**
- The measurement unit used (e.g., kg, liters, metric tons).
 - **Purpose:** Standardize and compare quantities across different products.
13. **From Currency**
- The currency in which the export transaction is recorded.
 - **Purpose:** Analyze financial data in the context of currency fluctuations.
14. **Export Mode**
- The method of transportation (e.g., air, sea, road).
 - **Purpose:** Understand logistics preferences and cost efficiency.
15. **Freight Charges In %**
- Freight charges expressed as a percentage of the total cost.
 - **Purpose:** Analyze transportation costs and their impact on profitability.
16. **Material Type Code**
- A code categorizing the type of material being exported (e.g., raw materials, finished goods).
 - **Purpose:** Segment exports by material type for deeper insights.
17. **To Currency**
- The currency used in the destination country for the transaction.
 - **Purpose:** Facilitate multi-currency analysis and conversion.

FREIGHT

Freight refers to the cost incurred for transporting goods from the point of origin to the destination.

Purpose:

Covers the logistical costs of moving goods, including handling and transportation.

Types of Freight Charges:

Air Freight: Cost of shipping goods by air.

Sea Freight: Cost of shipping goods by sea.

Rail Freight: Charges for transport via rail networks.

FREIGHT CHARGES

Definition: The cost of transporting goods from one location to another, including handling, loading, and logistics services.

Purpose: To pay for the transportation of goods via different modes like air, sea, rail, or road.

Who Collects It: Freight companies, shipping carriers, or logistics service providers.

Example Costs:

₹50,000 to transport goods via sea from India to the USA.

₹10,000 for air freight to deliver urgent goods.

CALCULATE FREIGHT TAX TO PAY

$$\text{FREIGHT FEES INR} = \text{TOTAL SALES} - (\text{FREIGHT CHARGES}/100)$$

$$\text{TOTAL SALES} * (\text{FREIGHT CHARGES}/100)$$

DUTY CHARGES (CUSTOMS DUTY)

Definition: A government-imposed tax on goods being imported or exported.

Purpose: To regulate trade, protect domestic industries, and generate revenue.

Who Collects It: Customs authorities of the importing/exporting country.

Types:

Import duty (on imported goods).

Export duty (on exported goods, rarely applied).

DUTY CHARGES DEPENDS ON THE WEIGHT AND PRICE OF THE GOODS

DEPENDS ON BELOW CONDITION

QUANTITY BETWEEN 1-25 - 0.5%

QUANTITY BETWEEN 26-50 - 1%

QUANTITY BETWEEN 50-100 - 1.5%

QUANTITY BETWEEN 100-200 - 2%

QUANTITY > 200 - 2.5%

FOR ANALYSIS

TOTAL SALES * (DUTY/100)

TRANSPORTATION CHARGES

CALCULATE NET SALES

TAKE OFF FREIGHT CHARGES , DUTY CHARGES

CALCULATE: TOTAL COST TO COMPANY , TOTAL SALES, FREIGHT CHARGES, DUTY CHARGES, NET SALES, YOY GROWTH

1. $\text{TOTAL SALES} = \text{PRICE} * \text{QUANTITY}$
2. $\text{FREIGHT CHARGES} = \text{TOTAL SALES} * \text{FREIGHT CHARGES} * 100$
3. $\text{DUTY CHARGES} = \text{TOTAL SALES} * \text{DUTY CHARGES} * 100$
4. $\text{TOTAL COST TO COMPANY} = \text{TOTAL SALES} + \text{FREIGHT CHARGES} + \text{DUTY CHARGES}$
5. $\text{NET SALES} = \text{TOTAL SALES} - \text{FREIGHT CHARGES} - \text{DUTY CHARGES}$

KEY POINTS FOR DEVELOPING THE QUERY

- NAMIBIA NM AND MOROCCO MO FALLS UNDER EAST AFRICA BUILD A NEW HIERARCHY
- EXCLUDE GOLD, IRON AND STEEL FROM THE ANALYSIS WHERE IT FALLS UNDER MINERAL CATEGORY
- MAKE CURRENCY CONVERSION USING EXCHANGE RATE TABLE IN THE DATABASE
- ROUND OFF THE PRICE TO TWO DECIMALS
- REPLACE MATERIAL TYPE NA WITH “UNDER PROCESSING”