SYMBIOSIS INSTITUTE OF TECHNOLOGY, NAGPUR

Exploratory Data Analysis on Imports From American Countries

Machine Learning CA-1

Submitted By:
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7th, C

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Submitted To:

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Introduction:

This dataset provides a detailed record of import transactions from American countries. Each row in the dataset represents a specific import shipment and contains information such as the date of import, the country of origin, the specific commodity imported, the quantity of the shipment, and the value of the import in three different currencies (quantity, Indian Rupees, and US Dollars).

The dataset covers a period from 2015 to 2025 and includes imports from various countries in the Americas, with the United States, Canada, Brazil, and Mexico being the most prominent. The commodities imported are diverse, ranging from raw materials like aluminum scrap and teak wood to finished goods.

This rich dataset is well-suited for a comprehensive analysis of import trends over time, the economic significance of different commodities and trading partners, and the relationships between the quantity and value of imports. The insights derived from this data can be valuable for understanding trade patterns and making informed business and policy decisions.

The dataset contains 662,128 rows and 15 columns. Each row represents a unique import transaction, and the 15 columns provide specific details about each transaction, including:

- id: A unique identifier for each record.
- date: The date of the import.
- country_name: The name of the country from which the goods were imported.
- alpha_3_code: The three-letter country code.
- country_code: The numerical country code.
- region: The geographical region of the country.
- region_code: The numerical code for the region.
- sub_region: The geographical sub-region of the country.
- sub_region_code: The numerical code for the sub-region.
- hs_code: The Harmonized System code for the commodity.
- commodity: The name of the imported commodity.
- unit: The unit of measurement for the quantity.
- value_qt: The quantity of the imported goods.
- value_rs: The value of the imported goods in Indian Rupees.
- value_dl: The value of the imported goods in US Dollars.

Dataset Overview:

This dataset provides a comprehensive and granular view of import activities from various countries in the Americas over a ten-year period, from 2015 to 2025. With over 660,000 individual import records, this dataset offers a rich source of information for analyzing international trade patterns.

Key Characteristics of the Dataset:

- **Extensive Time Period:** The data spans a decade, allowing for the analysis of long-term import trends, seasonality, and the impact of major events on trade.
- **Geographical Diversity:** The dataset includes import data from a wide range of countries in the Americas, from North to South America, providing a holistic view of the region's export activities.
- **Detailed Commodity Information:** Each import record is categorized by a specific commodity name and a Harmonized System (HS) code, enabling detailed analysis of the types of goods being imported.
- **Multiple Value Metrics:** The value of each import transaction is provided in three different units: quantity, Indian Rupees (RS), and US Dollars (DL), offering flexibility in the analysis of import values.

Initial Findings from Exploratory Data Analysis (EDA):

- **Top Trading Partners:** The United States is the most significant trading partner, accounting for the largest share of imports, followed by Canada, Brazil, and Mexico.
- **Popular Commodities:** The most frequently imported commodities include a broad category of "Others" and "Other", indicating a diverse range of imported goods. More specific top commodities include "Aluminium Scrap" and "Other Waste And Scrap."
- **Data Quality:** The dataset is generally clean, with a small number of missing values that have been addressed through imputation. The date column has been standardized to a datetime format for time-series analysis.

id	date	country_name	alpha_3_code	country_code	region	region_code	sub_region	sub_region_code	hs_code	commodity	unit	value_qt	value_rs	value_dl
0	2015-01-01	Antigua and Barbuda	ATG	28	Americas	19	Latin America and the Caribbean	419	8042090	Other Figs Excldng Frsh	Kgs	17.6	79.55	0.13
1	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	8092900	Other Cherries	Kgs	4.48	15.15	0.02
2	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	9024030	Tea Black,Dust In Bulk	Kgs	48.0	51.41	0.08
3	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	9024060	Tea Black Waste	Kgs	80.0	70.25	0.11
4	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	9024090	Other Black Tea	Kgs	44.8	31.07	0.05
5	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	10059000	*Other Maize (Corn)	Kgs	2091.14	1002.64	1.61
6	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	15071000	Soya Bean Crude Oil W/N Degummed	Kgs	161827.0	85310.63	137.1
7	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	20081100	Ground Nuts , Prpd/Prsvd	Kgs	20.0	22.38	0.04
8	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	20098990	Other Fruit Juice	Kgs	27.0	115.09	0.18
9	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	22042110	Port And Other Still Red Wines	Ltr	0.76	0.91	0.0
10	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	22042990	Other Wine Of Frsh Grapes Excluding Grape Must	Ltr	7.6	13.88	0.02
11	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	28369100	Lithium Carbonates	Kgs	18.0	68.9	0.11
12	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	29054500	Glycerol	Kgs	240.0	107.18	0.17
13	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	29221990	Other	Kgs	8.4	16.56	0.03
14	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	29232010	Lecithins	Kgs	799.82	386.14	0.62
15	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	29309099	Other Organo-Sulphur Compnds	Kgs	0.05	30.84	0.05
16	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	32011000	Quebracho Extract	Kgs	172.8	240.4	0.39
17	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	32099090	Othr Paint Varnshs (Incl Enaml And Laqurs) Bsd On Othr Synthtic Polymers Etc N.E.S.;	Kgs	9.53	23.38	0.04
18	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	33011300	Essential Oils Of Lemon	Kgs	0.36	11.97	0.02
19	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	33042000	Eye Make Up Preparations	Kgs	0.2	7.92	0.01
20	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	34031100	Prpns For The Trtmnt Of Txtl Matrls Leather Furskins/Other Materials Contng Petrolium Oils/Oil Obtnd From Bitmns	Kgs	32.0	35.57	0.06
21	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	34031900	Othr Prpns Cntng Ptrlm Oils/Oils Obtained From Bituminous Minerals	Kgs	17.02	24.43	0.04
22	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	34039900	Other Lubrictng Preparations	Kgs	72.91	97.8	0.16
23	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	35079099	Othr Enzymes Prepared Enzymes Nes	Kgs	70.4	207.19	0.33
24	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	38051020	Gum Turpentine Oil	Kgs	280.0	352.38	0.57
25	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	38061010	Gum Rosin	Kgs	0.03	0.29	0.0
26	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	38121000	Prepared Rubber Accelerators	Kgs	4.1	19.64	0.03
27	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	38220019	*Other For Medical Diagnosis	Kgs	0.02	3.08	0.0
28	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	38220090	*Others	Kgs	0.51	15.51	0.02
29	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	39089090	*Others Polyamides In Prmry Forms Excl Polyamide-,-11,-12,-6,6,-6,9,-6,10 Or -6, 12:	Kgs	5.4	21.91	0.04
30	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	40139090	Inner Tubes Used In Other Vehicles	Nos	0.0	0.07	0.0
31	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	40169990	Others Articles Of Vulcanised Rubber Excl. Mats/Gaskets And Other Inflatable Articles	Kgs	1.49	24.66	0.04
32	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	41041100	Full Grains-Unsplit/Grain-Splits Of Bovinein Wet State Incldng Wet-Blue	Kgs	24.87	365.41	0.59
33	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	41041900	Other Grain Of Bovine In Wet State Incldngwet-Blue	Kgs	153.24	674.66	1.08
34	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	41044900	Other Grain Of Bovine In Dry State (Crust)	Kgs	155.55	1344.05	2.16
35	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	41079900	Other/Hides/Skins Including Sides	Kgs	18.98	150.84	0.24
36	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	51011900	Other Wool,Greasy,Incl Fleece-Washed	Kgs	16.88	79.1	0.13
37	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	51012900	Othr Degresd Wool Nt Crbnsd Nor Crded/Cmbd	Kgs	29.73	105.17	0.17
38	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	52010020	Foreign Cotton Of All Staple Lengths	Kgs	1627.05	1471.28	2.36
39	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	55051010	Naste Etc. Of Acrylic Synthtic Fbrcs	Kgs	20.6	13.21	0.02
40	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	64069090	Other Of Hdg 640690	Kgs	18.0	111.49	0.18
41	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	72029990	Others	Kgs	48.0	70.46	0.11
42	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	73181500	Othr Screws And Bolts W/N Wth Nuts Or Washers Threaded	Kgs	0.03	0.9	0.0
43	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	73262090	Other Articles Of Iron Or Steel Wire For Other Use	Kgs	0.01	0.48	0.0
44	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	73269099	All Other Articles Of Iron/Steel Nes Other Steering Or Rudder Equipment For Ships And Boats, N.E.S.	Kgs	36.05	23.91	0.04
45	2015-01-01	Argentina	ARG	32	Americas	19	Latin America and the Caribbean	419	76090010	Aluminium Scrap Covert By Iscl Code Tablettabloid Tabop Taint/Tabor Take, Talap, Talcast Taldack Taldop Ta	Kgs	54.0	52.56	0.08

1.Exploratory Data Analysis (EDA)

Exploratory Data Analysis (EDA) of the imports dataset from American countries reveals a trade landscape dominated by the United States, with Canada, Brazil, and Mexico as other key partners. The imported goods are highly diverse, with a notable volume of industrial materials such as aluminum scrap. The distribution of import values is heavily skewed, with a large number of low-value transactions and a few high-value outliers, indicating that a small fraction of imports contributes significantly to the total trade value. We also observed a strong correlation between the import values in Indian Rupees and US Dollars, as expected. This analysis provides a foundational understanding of the import patterns, highlighting the key players and the economic characteristics of the trade relationships within the Americas.

```python
import pandas as pd

# Load the dataset
df = pd.read_csv('/content/imports-from-american-countries.csv')

# Display the first 5 rows of the dataframe
print("First 5 rows of the dataset:")
display(df.head())

# Display information about the dataset
print("\nDataset Information:")
df.info()
```

```
First 5 rows of the dataset:
```

	id	date	country_name	alpha_3_code	country_code	region	region_code	sub_region	sub_region_code	hs_code	commodity	unit	value_qt	value_rs	value_dl
0	0	2015-01-01	Antigua and Barbuda	ATG	28.0	Americas	19	Latin America and the Caribbean	419	8042090	Other Figs Excldng Frsh	Kgs	17.60	79.55	0.13
1	1	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	8092900	Other Cherries	Kgs	4.48	15.15	0.02
2	2	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	9024030	Tea Black,Dust In Bulk	Kgs	48.00	51.41	0.08
3	3	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	9024060	Tea Black Waste	Kgs	80.00	70.25	0.11
4	4	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	9024090	Other Black Tea	Kgs	44.80	31.07	0.05

```
Dataset Information:
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 662128 entries, 0 to 662127
Data columns (total 15 columns):
 #   Column          Non-Null Count   Dtype
---  ------          --------------   -----
 0   id              662128 non-null  int64
 1   date            662128 non-null  object
 2   country_name    662128 non-null  object
 3   alpha_3_code    662127 non-null  object
 4   country_code    662127 non-null  float64
 5   region          662128 non-null  object
 6   region_code     662128 non-null  int64
 7   sub_region      662128 non-null  object
 8   sub_region_code 662128 non-null  int64
 9   hs_code         662128 non-null  int64
 10  commodity       662128 non-null  object
 11  unit            662118 non-null  object
 12  value_qt        662128 non-null  float64
 13  value_rs        662128 non-null  float64
 14  value_dl        662128 non-null  float64
dtypes: float64(4), int64(4), object(7)
memory usage: 75.8+ MB
```

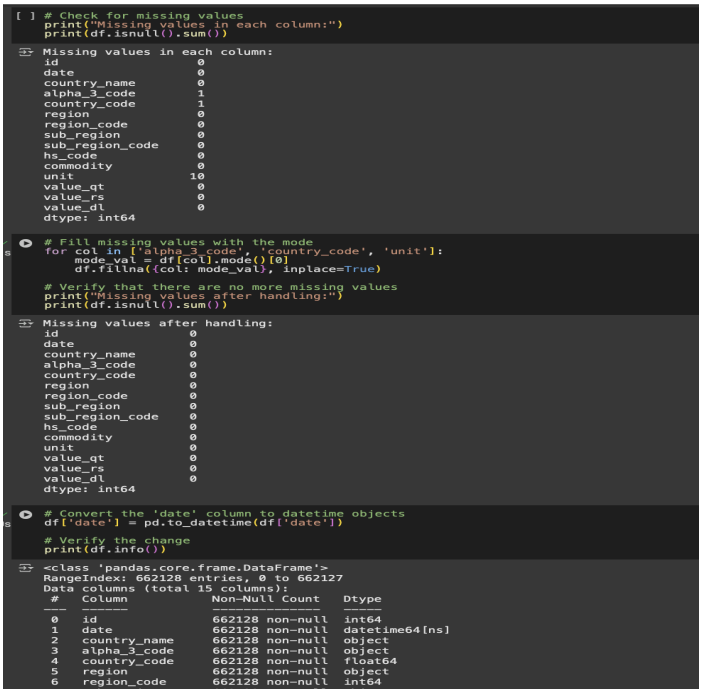
2. Data Cleaning and Preprocessing

Theory and Implementation

Data cleaning is a crucial step in any data analysis project. It involves identifying and correcting or removing errors and inconsistencies in a dataset to improve its quality and ensure the accuracy of the analysis. In this dataset, we performed the following data cleaning steps:

1. Handling Missing Values

- **Theory:** Missing data can lead to biased or incorrect conclusions. Therefore, it's essential to identify and handle missing values appropriately. Common strategies for handling missing data include removing the rows or columns with missing values, or imputing the missing values with a substitute value (e.g., mean, median, or mode). The choice of strategy depends on the amount of missing data and the nature of the variable.
- **Implementation:** We first checked for missing values in each column of the dataset. We found a small number of missing values in the alpha_3_code, country_code, and unit columns. Given the small number of missing values, we chose to impute them with the mode (the most frequent value) of their respective columns. This approach preserves the data and is appropriate for categorical variables.

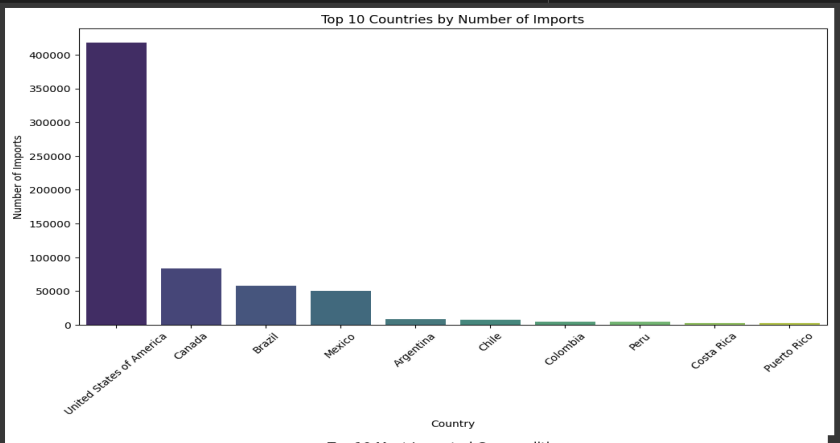


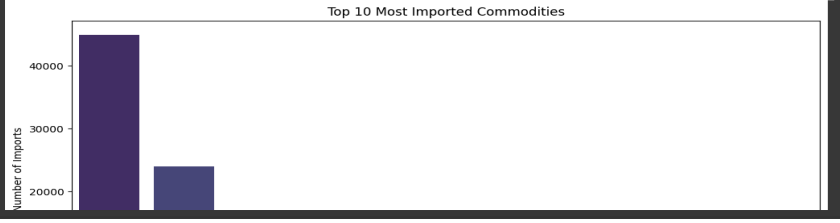
```
[ ] # Check for missing values
    print("Missing values in each column:")
    print(df.isnull().sum())

Missing values in each column:
id                  0
date                0
country_name        0
alpha_3_code        1
country_code        1
region              0
region_code         0
sub_region          0
sub_region_code     0
hs_code             0
commodity           0
unit               10
value_qt            0
value_rs            0
value_dl            0
dtype: int64

    # Fill missing values with the mode
    for col in ['alpha_3_code', 'country_code', 'unit']:
        mode_val = df[col].mode()[0]
        df.fillna({col: mode_val}, inplace=True)

    # Verify that there are no more missing values
    print("Missing values after handling:")
    print(df.isnull().sum())

Missing values after handling:
id                  0
date                0
country_name        0
alpha_3_code        0
country_code        0
region              0
region_code         0
sub_region          0
sub_region_code     0
hs_code             0
commodity           0
unit                0
value_qt            0
value_rs            0
value_dl            0
dtype: int64

    # Convert the 'date' column to datetime objects
    df['date'] = pd.to_datetime(df['date'])

    # Verify the change
    print(df.info())

<class 'pandas.core.frame.DataFrame'>
RangeIndex: 662128 entries, 0 to 662127
Data columns (total 15 columns):
 #   Column           Non-Null Count   Dtype
---  ------           --------------   -----
 0   id               662128 non-null  int64
 1   date             662128 non-null  datetime64[ns]
 2   country_name     662128 non-null  object
 3   alpha_3_code     662128 non-null  object
 4   country_code     662128 non-null  float64
 5   region           662128 non-null  object
 6   region_code      662128 non-null  int64
```

3. Univariate Analysis:

- **Numerical Variables:** The distribution of the numerical columns (value_qt, value_rs, value_dl) was found to be highly skewed to the right. This indicates that the majority of imports are of low value, with a few exceptionally high-value imports that act as outliers.
- **Categorical Variables:**
    - **Top Countries:** The analysis of import origins revealed that the **United States** is the most significant source of imports, followed by **Canada**, **Brazil**, and **Mexico**.
    - **Top Commodities:** The most frequently imported commodities are listed as "Others" and "Other," suggesting a wide variety of goods. Among the more specific items, **"Aluminium Scrap"** and **"Other Waste And Scrap"** are the most common.

```
# Create a bar plot for the top 10 countries
plt.figure(figsize=(12, 6))
sns.barplot(x=top_10_countries.index, y=top_10_countries.values, hue=top_10_countries.index, palette='viridis', legend=False)
plt.title('Top 10 Countries by Number of Imports')
plt.xlabel('Country')
plt.ylabel('Number of Imports')
plt.xticks(rotation=45)
plt.show()

# Create a bar plot for the top 10 commodities
plt.figure(figsize=(12, 6))
sns.barplot(x=top_10_commodities.index, y=top_10_commodities.values, hue=top_10_commodities.index, palette='viridis', legend=False)
plt.title('Top 10 Most Imported Commodities')
plt.xlabel('Commodity')
plt.ylabel('Number of Imports')
plt.xticks(rotation=90)
plt.show()
```

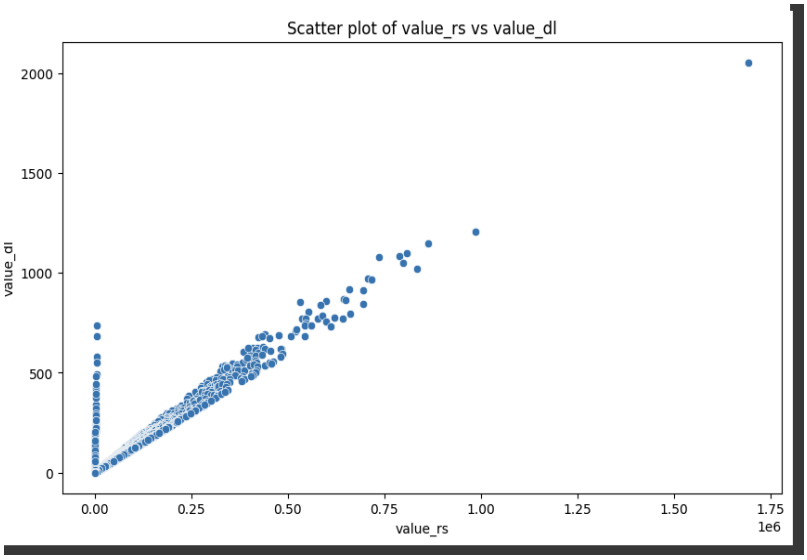




4. Bivariate :

- **Numerical Relationships:** We found a very strong positive correlation (0.97) between the import value in Indian Rupees (value_rs) and US Dollars (value_dl), which is expected as they represent the same value in different currencies. The relationship between the quantity of imports (value_qt) and their monetary value was weaker, suggesting variability in price per unit across different commodities.
- **Categorical vs. Numerical Relationships:** By analyzing the distribution of import values for the top 10 countries and commodities, we observed significant variations. Some countries and commodities exhibit a wide range of import values with notable outliers, indicating that certain trade relationships are characterized by high-value transactions.

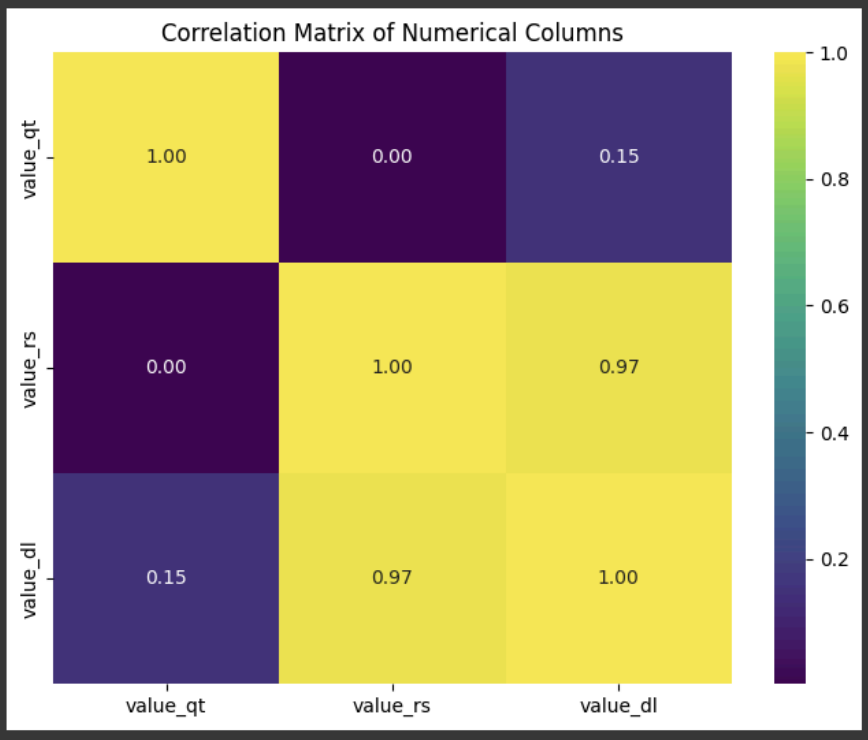
```
6s
# Create scatter plot for value_qt vs value_rs
plt.figure(figsize=(10, 6))
sns.scatterplot(x='value_qt', y='value_rs', data=df)
plt.title('Scatter plot of value_qt vs value_rs')
plt.xlabel('value_qt')
plt.ylabel('value_rs')
plt.show()

# Create scatter plot for value_qt vs value_dl
plt.figure(figsize=(10, 6))
sns.scatterplot(x='value_qt', y='value_dl', data=df)
plt.title('Scatter plot of value_qt vs value_dl')
plt.xlabel('value_qt')
plt.ylabel('value_dl')
plt.show()

# Create scatter plot for value_rs vs value_dl
plt.figure(figsize=(10, 6))
sns.scatterplot(x='value_rs', y='value_dl', data=df)
plt.title('Scatter plot of value_rs vs value_dl')
plt.xlabel('value_rs')
plt.ylabel('value_dl')
plt.show()

# Calculate the correlation matrix for numerical columns
numerical_cols = ['value_qt', 'value_rs', 'value_dl']
correlation_matrix = df[numerical_cols].corr()

# Display the correlation matrix
print("\nCorrelation Matrix:")
display(correlation_matrix)
```



5.Multivariate Analysis:

A heatmap of the correlation matrix visually confirmed the strong linear relationship between value_rs and value_dl. A pair plot of the numerical variables further illustrated the skewed distributions and the relationships between the value columns.

```
[ ] plt.figure(figsize=(8, 6))
    sns.heatmap(correlation_matrix, annot=True, cmap='viridis', fmt=".2f")
    plt.title('Correlation Matrix of Numerical Columns')
    plt.show()
```



6. Cleaned Dataset Overview:

After the data cleaning and preprocessing, the dataset is well-structured with **662,128 rows** and **15 columns**. The date column has been successfully converted to a datetime format, making it suitable for time-series analysis and for extracting temporal features like the year and month of import. All missing values in the alpha_3_code, country_code, and unit columns have been handled through mode imputation, which ensures the completeness of the data without introducing significant bias. The cleaning process has significantly improved the quality and reliability of the dataset, making it well-suited for a wide range of analytical tasks, including in-depth exploratory data analysis, time-series forecasting of import trends, and building machine learning models to understand the factors influencing import values and volumes.

Cleaaned_Dataset_22070521115_Aryavardhan_Deshmukh_C

id	date	country_name	alpha_3_code	country_code	region	region_code	sub_region	sub_region_code	hs_code	commodity	unit	value_qt	value_rs	value_dl
0	2015-01-01	Antigua and Barbuda	ATG	28.0	Americas	19	Latin America and the Caribbean	419	8042090	Other Figs Excldng Frsh	Kgs	17.6	79.55	0.13
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2	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	9024030	Tea Black,Dust In Bulk	Kgs	48.0	51.41	0.08
3	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	9024060	Tea Black Waste	Kgs	80.0	70.25	0.11
4	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	9024090	Other Black Tea	Kgs	44.8	31.07	0.05
5	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	10059000	*Other Maize (Corn)	Kgs	2091.14	1002.64	1.61
6	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	15071000	Soya Bean Crude Oil W/N Degummed	Kgs	161827.0	85310.63	137.1
7	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	20081100	Ground Nuts , Prpd/Prsvd	Kgs	20.0	22.38	0.04
8	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	20098990	Other Fruit Juice	Kgs	27.0	115.09	0.18
9	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	22042110	Port And Other Still Red Wines	Ltr	0.76	0.91	0.0
10	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	22042990	Other Wine Of Frsh Grapes Excluding Grape Must	Ltr	7.6	13.88	0.02
11	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	28369100	Lithium Carbonates	Kgs	18.0	68.9	0.11
12	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	29054500	Glycerol	Kgs	240.0	107.18	0.17
13	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	29221990	Other	Kgs	8.4	16.56	0.03
14	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	29232010	Lecithins	Kgs	799.82	386.14	0.62
15	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	29309099	Other Organo-Sulphur Compnds	Kgs	0.05	30.84	0.05
16	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	32011000	Quebracho Extract	Kgs	172.8	240.4	0.39
17	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	32099090	Othr Paint Varnshs (Incl Enaml And Laqurs) Bsd On Othr Synthtic Polymers Etc N.E.S.;	Kgs	9.53	23.38	0.04
18	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	33011300	Essential Oils Of Lemon	Kgs	0.36	11.97	0.02
19	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	33042000	Eye Make Up Preparations	Kgs	0.2	7.92	0.01
20	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	34031100	Prpns For The Trtmnt Of Txtl Matrls Leather Furskins/Other Materials Contng Petrolium Oils/Oil Obtnd From Bitmns	Kgs	32.0	35.57	0.06
21	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	34031900	Othr Prpns Cntng Ptrlm Oils/Oils Obtained From Bituminous Minerals	Kgs	17.02	24.43	0.04
22	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	34039900	Other Lubrictng Preparations	Kgs	72.91	97.8	0.16
23	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	35079099	Othr Enzymes Prepared Enzymes Nes	Kgs	70.4	207.19	0.33
24	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	38051020	Gum Turpentine Oil	Kgs	280.0	352.38	0.57
25	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	38061010	Gum Rosin	Kgs	0.03	0.29	0.0
26	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	38121000	Prepared Rubber Accelerators	Kgs	4.1	19.64	0.03
27	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	38220019	*Other For Medical Diagnosis	Kgs	0.02	3.08	0.0
28	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	38220090	*Others	Kgs	0.51	15.51	0.02
29	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	39089090	*Others Polyamides In Prmry Forms Excl Polyamide-,-11,-12,-6,6,-6,9,-6,10 Or -6, 12:	Kgs	5.4	21.91	0.04
30	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	40139090	Inner Tubes Used In Other Vehicles	Nos	0.0	0.07	0.0
31	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	40169990	Others Articles Of Vulcanised Rubber Excl. Mats/Gaskets And Other Inflatable Articles	Kgs	1.49	24.66	0.04
32	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	41041100	Full Grains-Unsplit/Grain-Splits Of Bovinein Wet State Incldng Wet-Blue	Kgs	24.87	365.41	0.59
33	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	41041900	Other Grain Of Bovine In Wet State Incldngwet-Blue	Kgs	153.24	674.66	1.08
34	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	41044900	Other Grain Of Bovine In Dry State (Crust)	Kgs	155.55	1344.05	2.16
35	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	41079900	Other/Hides/Skins Including Sides	Kgs	18.98	150.84	0.24
36	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	51011900	Other Wool,Greasy,Incl Fleece-Washed	Kgs	16.88	79.1	0.13
37	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	51012900	Othr Degresd Wool Nt Crbnsd Nor Crded/Cmbd	Kgs	29.73	105.17	0.17
38	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	52010020	Foreign Cotton Of All Staple Lengths	Kgs	1627.05	1471.28	2.36
39	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	55051010	Naste Etc. Of Acrylic Synthtic Fbrcs	Kgs	20.6	13.21	0.02
40	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	64069090	Other Of Hdg 640690	Kgs	18.0	111.49	0.18
41	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	72029990	Others	Kgs	48.0	70.46	0.11
42	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	73181500	Othr Screws And Bolts W/N Wth Nuts Or Washers Threaded	Kgs	0.03	0.9	0.0
43	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	73262090	Other Articles Of Iron Or Steel Wire For Other Use	Kgs	0.01	0.48	0.0
44	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	73269099	All Other Articles Of Iron/Steel Nes Other Steering Or Rudder Equipment For Ships And Boats, N.E.S.	Kgs	36.05	23.91	0.04
45	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	76020010	Aluminium Scrap Coverd By Isri Code Tablettabloid,Taboo,Taint/Tabor,Take, Talap, Talcred,Taldack,Taldon,Ta	Kgs	54.0	52.56	0.08
46	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	76169990	Others Articles Of Aluminium N.E.S.	Kgs	0.03	0.33	0.0
47	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	84119900	Parts Of Other Gas Turbines	Kgs	0.01	9.91	0.02
48	2015-01-01	Argentina	ARG	32.0	Americas	19	Latin America and the Caribbean	419	84224000	Othr Packng/Wrapng Macnry Incl Heat-Shrink Wrapng Machnry	Kgs	0.25	33.81	0.05

Conclusion:

The analysis of the "Imports from American Countries" dataset provides valuable insights into the trade patterns between the importing country and the American continents. The key findings are:

- Trade is dominated by a few key partners, with the United States being the primary source of imports.
- The imported goods are diverse, with a significant volume of industrial raw materials.
- The value of imports is characterized by a large number of low-value transactions and a small number of high-value ones.

This comprehensive analysis provides a solid foundation for further investigation, such as forecasting future import trends, analyzing the economic impact of trade with specific countries, or identifying opportunities for optimizing the supply chain. The cleaned and preprocessed dataset is a valuable asset for any organization involved in international trade and economic analysis.