

# Information Visualization Final Report

## Title: Indian Import – Export Data Visualization

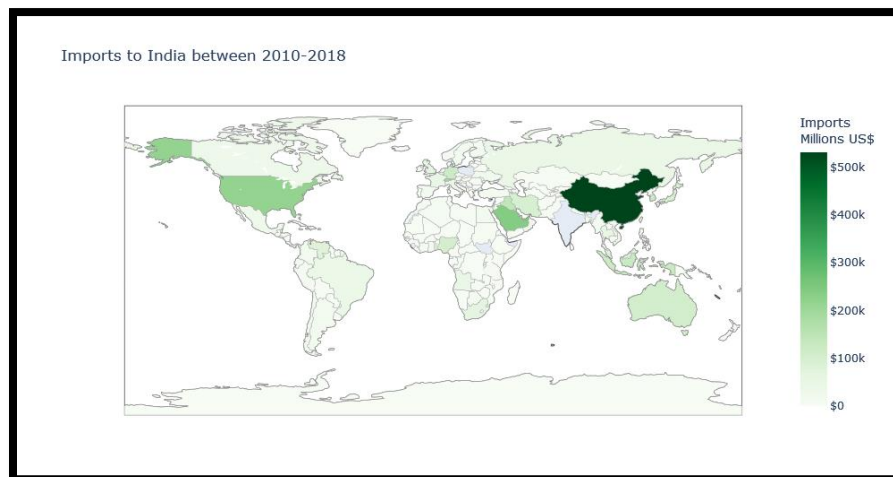
Adit Bharat Shah (ADS239)

**Dataset:** India Trade Data

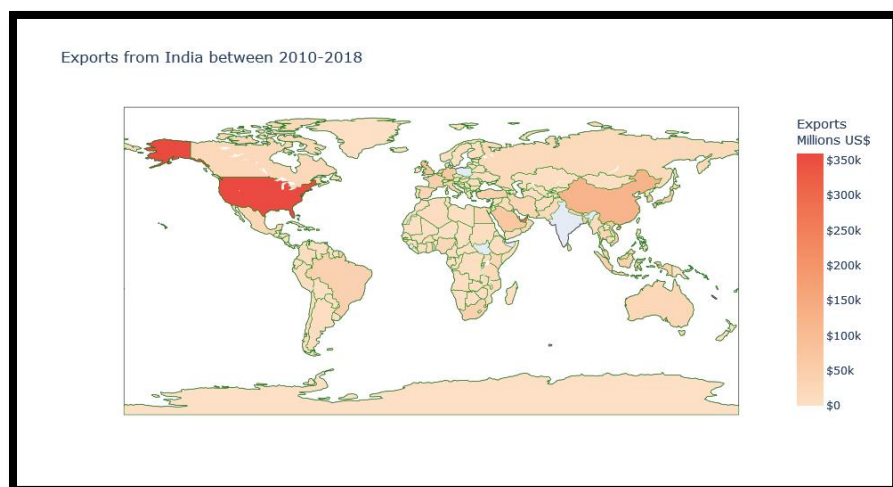
**Link:** <https://www.kaggle.com/datasets/lakshyaag/india-trade-data>

**Data Description:** The user data set contained 2 smaller datasets divided into import data and export data. The dataset contains attributes like Value (in USD), countries, commodities and years. Using this data we can get an information about the import and export data of between different countries. The dataset has a combined of 212,000 rows of data.

**Figure 1:** Imports to India between 2010-2018



**Figure 2:** Exports from India between 2010-2018



### Legend:

In both the above figures, the different countries are colors according to the value of trade they do with India. The Darker the share the more the value of trade that country has done with India.

### Findings:

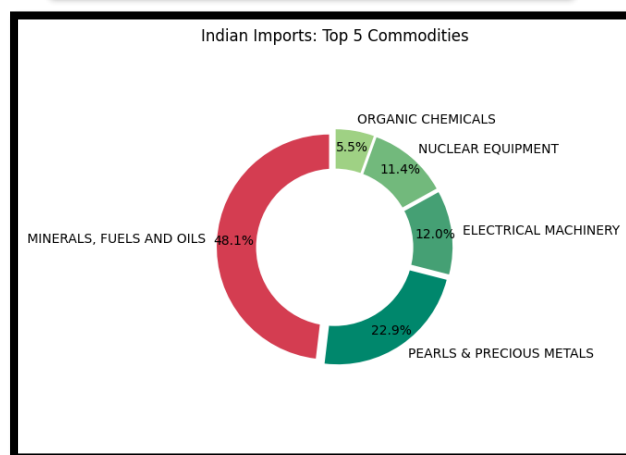
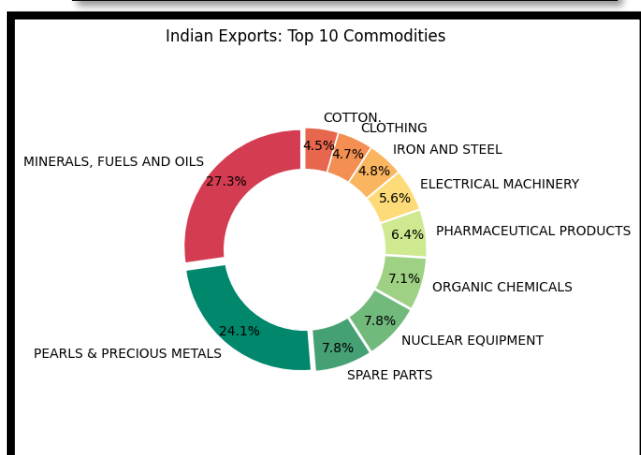
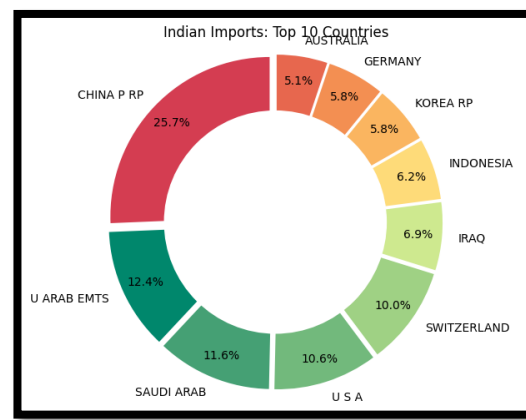
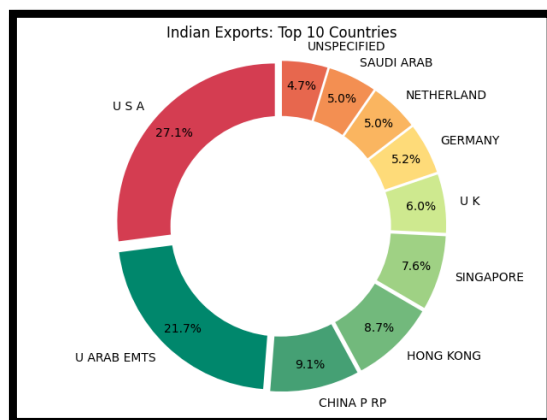
Both the figures are World Map-Heat Maps which give an idea to the viewers about the import and export trade of India with the rest of the world Countries

- India Exports the most to the United States of America, followed by countries like China, United Arab Emirates
- While India Imports the most from China, Saudi Arabia, Australia, USA, and many other countries
- When comparing the 2 Figures we can see that there exists a huge trade deficit between India and China due the massive contrast in the darkness of China in the two figures.
- The figure also helps us better understand how the trade relations of India are with other world countries are.

### Significance Statement:

The Above graphs are Significant as they give an overall view of India's trade. This makes it easy to understand the expanse of India's trade.

**Figure 3: Top 10 Countries and Commodities for Indian Imports and Exports**



### **Legend:**

In both the above figures, the different countries/commodities are depicted with the percentages of their contributions to the proportion of trade.

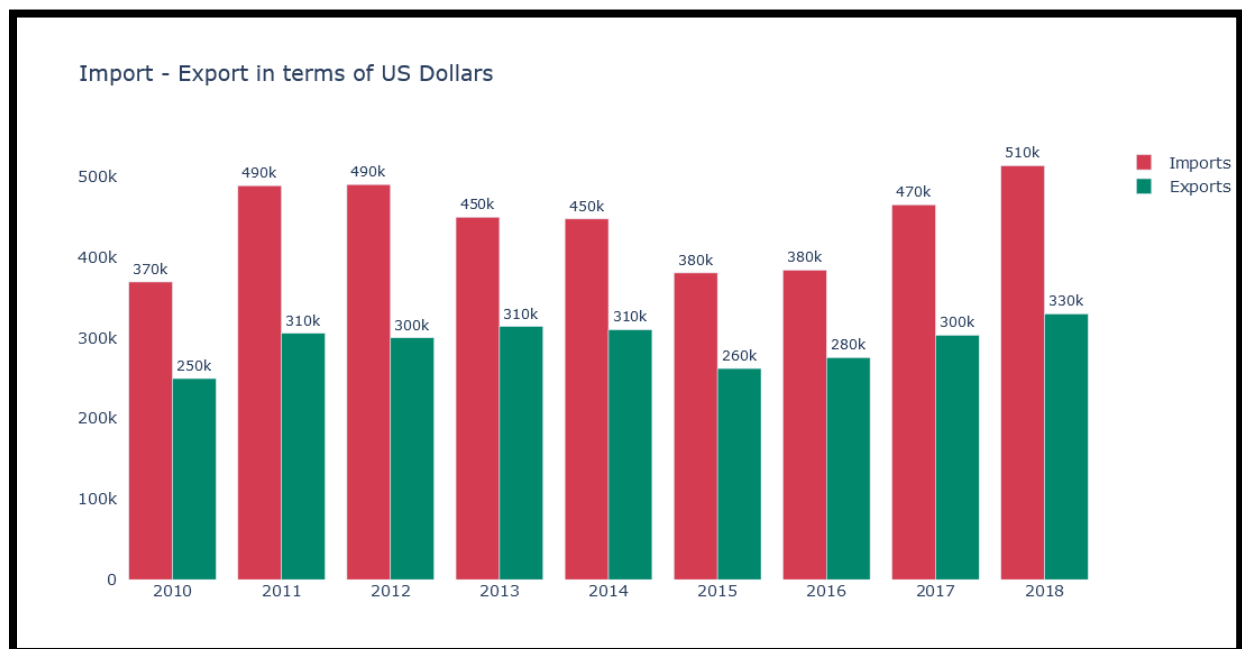
### **Findings:**

- We can see that USA and China are nearly  $\frac{1}{4}$ <sup>th</sup> of India's trade when we take into account the top 10 countries that India does trade with. .
- We also can see that Indian Imports are mainly Oil and other Precious metals. India also has a huge export of mineral and oils as they have multiple refineries that import crude oil and export the refined form of it.

### **Significance Statement:**

Both the above Graphs give us a better understanding on the first map graphs and help us understand how much the biggest Indian Trade Partners contribute in its trade. It also gives a deep understanding of the types of goods that trade occurs in.

**Figure 3: Import – Export in terms of US Dollars over the years**



### **Significance Statement:**

The above graph gives us a visual perspective into how much trade deficit India actually has.

**GitHub Link:** <https://github.com/aditshah98/Information-Visualization-Final-Project/tree/main>