Project Documentation:

India-Australia Trade Data Visualization Dashboard

Project Summary

This project aims to provide a comprehensive, interactive visualization of India-Australia trade data, focusing on export and import values. The dashboard is web-based and leverages Python-based tools for data manipulation, cleaning, and visualization.

Tools & Libraries

- **Pandas**: Used for handling and transforming the trade data.
- **Dash**: A web framework that powers the interactive dashboard.
- **Plotly**: Utilized for generating interactive plots and graphs.
- **Selenium**: Automates web scraping to extract trade data from the source website.
- **WebDriver Manager**: Ensures correct versioning and management of Selenium WebDriver binaries.
- **OpenPyXL**: Handles reading and writing Excel files.

Data Source

The trade data is sourced from the Ministry of Commerce's Trade Statistics portal (https://tradestat.commerce.gov.in/eidb/default.asp). Note that there are certain months where data is unavailable, creating gaps in the dataset.

Project Structure:

```
Trade-Dashboard/
├── data/
│   ├── cleaned_Export_trade_data.xlsx
│   ├── cleaned_Import_trade_data.xlsx
│   ├── cleanExport.py
│   ├── cleanImport.py
│   ├── Export_trade_data.xlsx
│   └── Import_trade_data.xlsx
├── scripts/
│   ├── dashboard
│   │   └── app.py
│   └── scrape
│       ├── exportScrape
│       └── importScrape
└── README.md
```

Instructions:

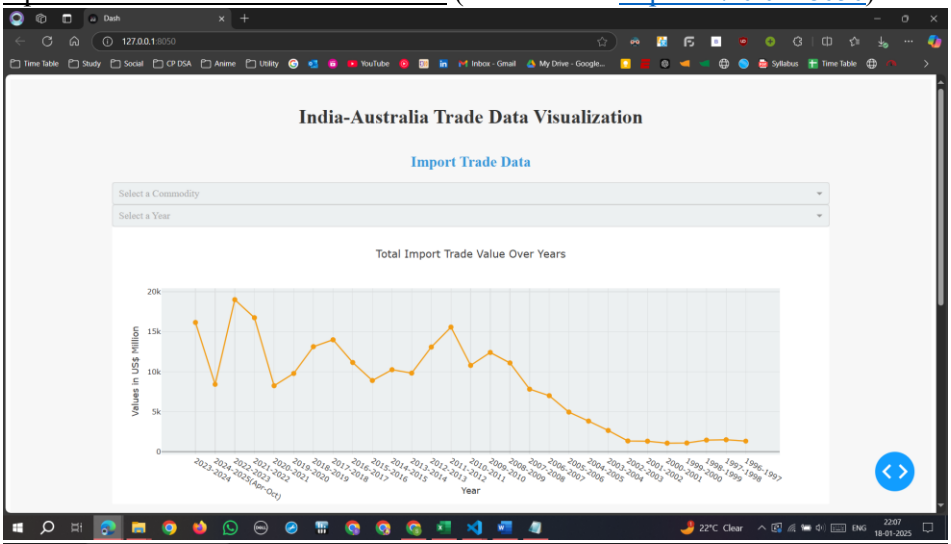
1. Install required libraries using:
   pip install pandas dash plotly selenium webdriver-manager openpyxl

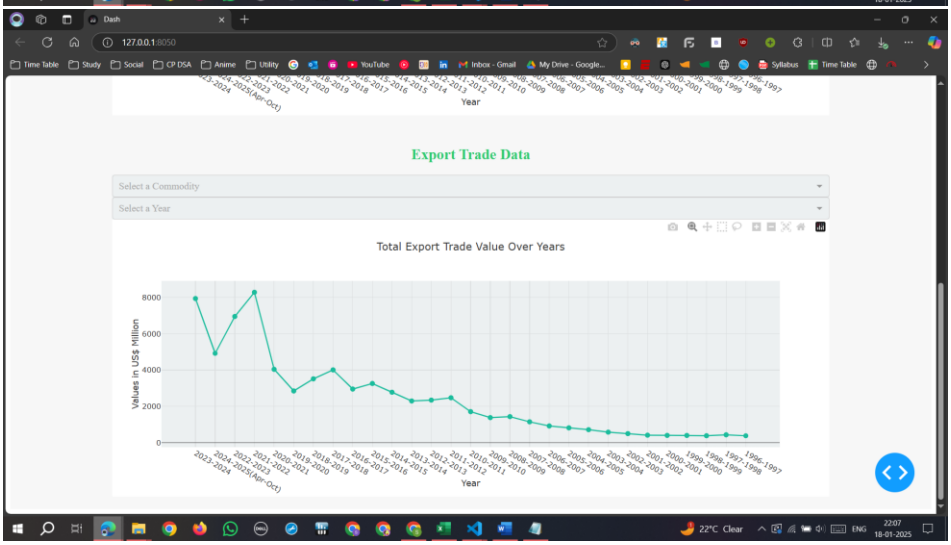
2. Run the scraping scripts to collect and clean the data:
   python importScrape.py
   python Exportcrape.py
   python cleanExport.py
   python cleanImport.py (in their respective directories)

3. Start the dashboard by running:
   python app.py

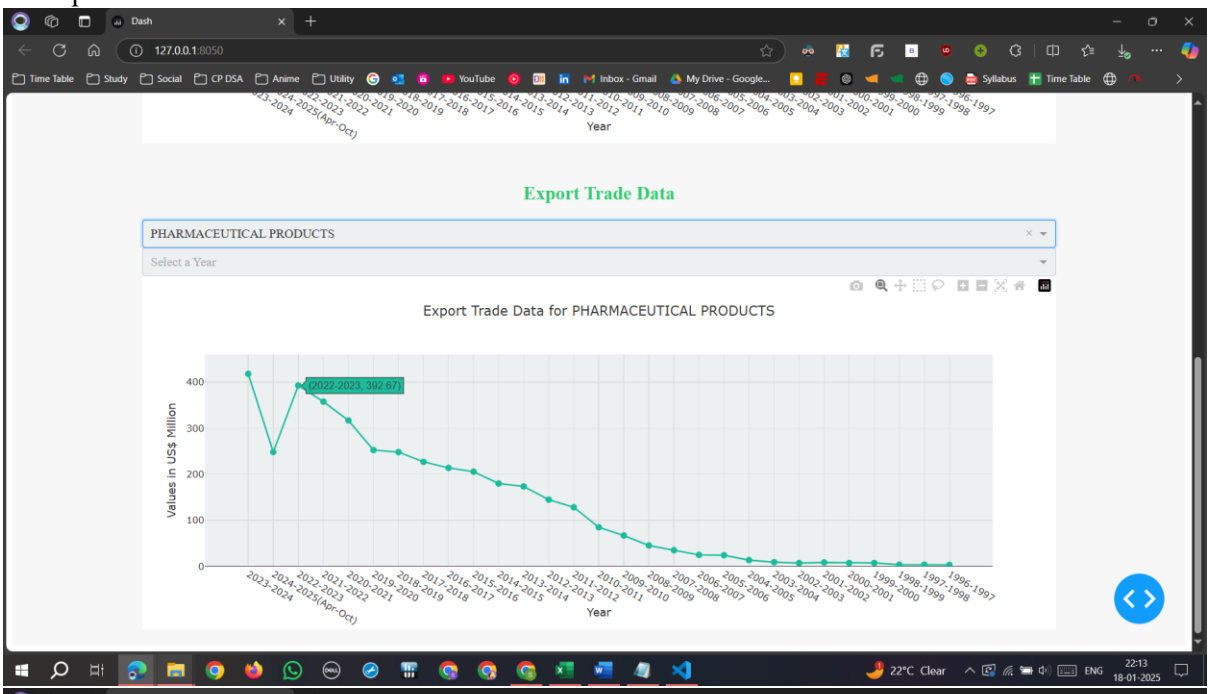
```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS  SQL CONSOLE

PS C:\Users\Siddhant\Desktop\Trade-Dashboard\scripts\dashboard> python app.py
Dash is running on http://127.0.0.1:8050/

 * Serving Flask app 'app'
 * Debug mode: on
```

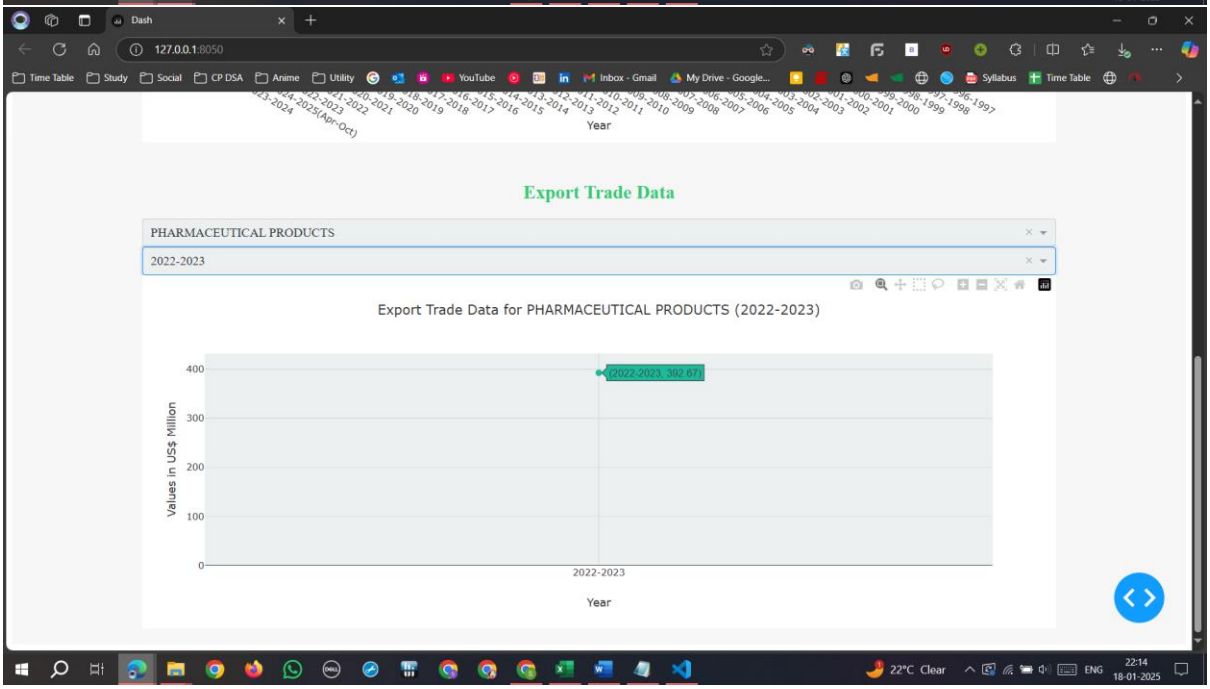
4. Open the dashboard in a web browser (accessible at http://127.0.0.1:8050).





Example:





90	ELECTRICA	2022-2023	417.44
91	PHARMAC	2022-2023	392.67
92	NATURAL	2022-2023	343.2