

# 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:

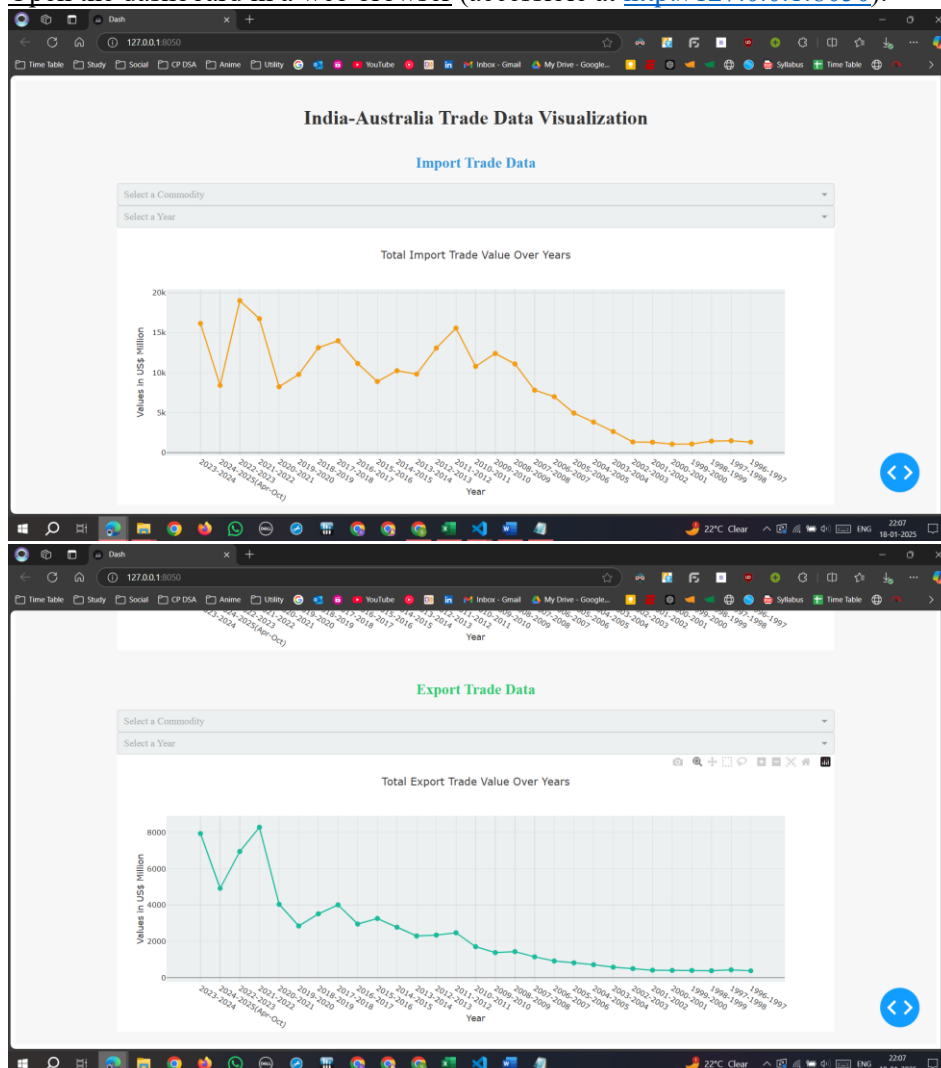
1. Install required libraries using:  
pip install pandas dash plotly selenium webdriver-manager openpyxl
2. Run the scraping scripts to collect and clean the data:  
python Export\_scrap\_year.py  
python Import\_scrape\_year.py  
python clean.py  
(in their respective directories)
3. Start the dashboard by running:  
python Dashboard.py

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS SQL CONSOLE

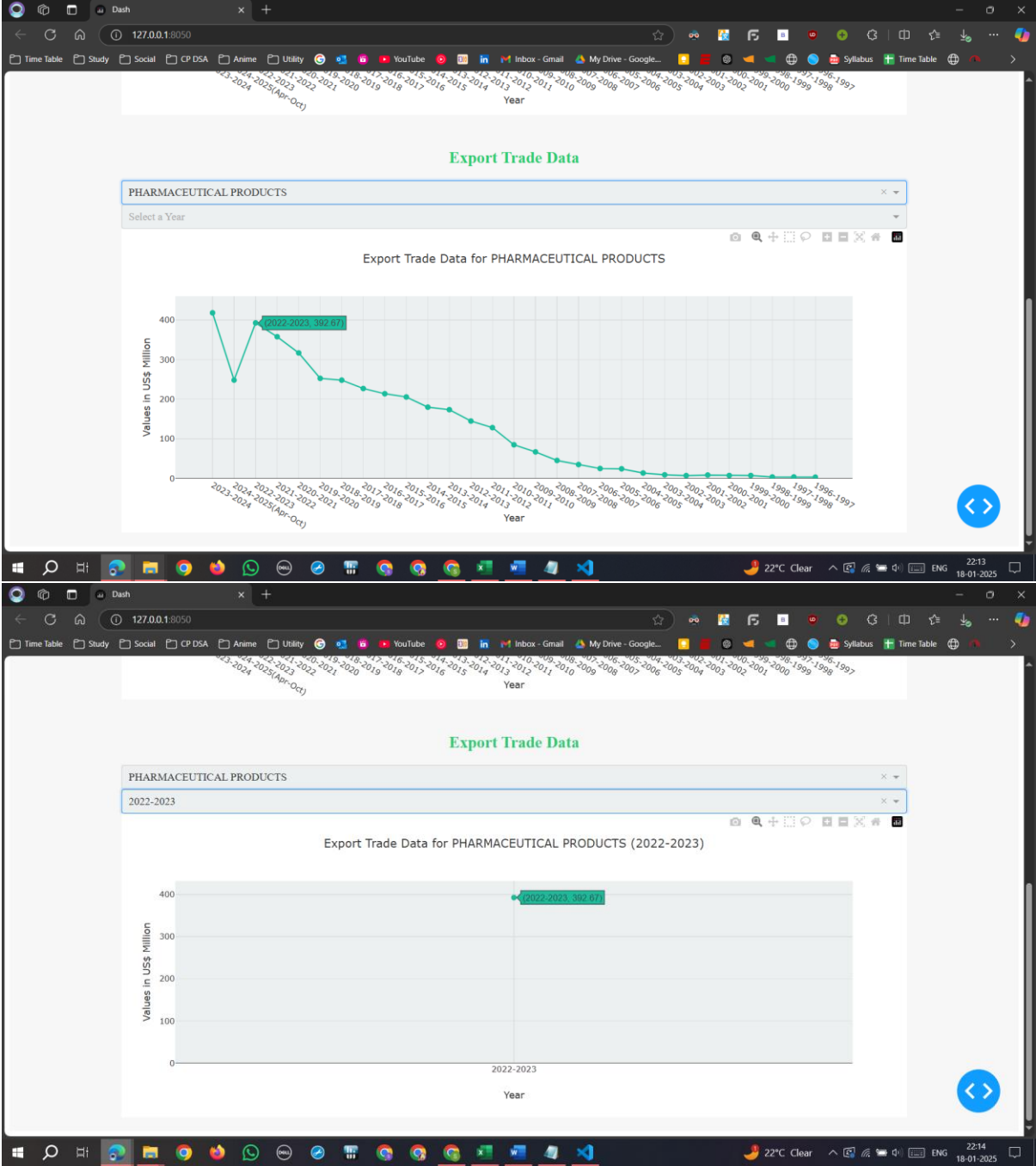
PS C:\Users\Siddhant\Desktop\Trade-Dashboard\scripts\dashboard> python app.py
Dash is running on http://127.0.0.1:8050/

* 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	ELECTRICAL	2022-2023	417.44
91	PHARMACEUTICAL	2022-2023	392.67
92	NATURAL	2022-2023	343.2