

A) Prerequisites:

Python installed (3.8 or above recommended)

Jupyter Notebook / IDE capable of running **.ipynb** files

Streamlit installed (for `store_demand_forecast.py`)

Required **libraries** installed (see **requirements.txt**)

To **install libraries** run following command on prompt (If permission denied run Command prompt in administrator mode)

pip install -r requirements.txt

(or if it doesnt work then try)

pip3 install -r requirements.txt

B) How to Run:

1) Store Demand Forecast App (`store_demand_forecast.py`)

Before running file Change the following path in the file with your file location for **Sales** data.

FILE_PATH = r'D:\Slooze Dataset\slooze_challenge\SalesFINAL12312016.csv'

i) Open terminal

ii) Navigate (change directory) to folder containing `store_demand_forecast.py` file

iii) Run Following Command:

streamlit run store_demand_forecast.py

iv) Follow on-screen instructions to **select a store** and **view forecast**.

2) Demand Forecast Notebook (Demand_Forecast.ipynb)

Before running file **Change the following path** in the file with your file location for **Sales data**.

FILE_PATH = r'D:\Slooze Dataset\slooze_challenge\SalesFINAL12312016.csv'

- i) Open in **Jupyter Notebook** or any other tool capable of running .ipynb files.
- ii) Run cells **sequentially** to load data, train models (Holt-Winters + XGBoost), and generate forecasts

I have also included Demand_Forecast.py file. This is Executable script on terminal.

Change the path in file

FILE_PATH = r'D:\Slooze Dataset\slooze_challenge\SalesFINAL12312016.csv'

with your own file location

Then on **terminal** run following command after navigating to the folder containing Demand_Forecast.py:

python Demand_Forecast.py

3) Inventory Analysis Notebook (Slooze_Tasks.ipynb)

Before running file **Change the following path** in the file with your file location for Sales and purchase data.

sales = pd.read_csv(r'D:\Slooze Dataset\slooze_challenge\SalesFINAL12312016.csv')

purchases = pd.read_csv(r'D:\Slooze Dataset\slooze_challenge\PurchasesFINAL12312016.csv')

- i) Open in **Jupyter Notebook**
- ii) Run cells **sequentially** to perform ABC Analysis, Reorder Point Analysis, and Lead Time Analysis

I have also included **Slooze_Tasks.py** file. This is Executable script on terminal.

Change the path in file

```
Sales = pd.read_csv(r'D:\Slooze Dataset\slooze_challenge\SalesFINAL12312016.csv')
```

```
purchases = pd.read_csv(r'D:\Slooze Dataset\slooze_challenge\PurchasesFINAL12312016.csv')
```

with your own file location for **sales** and **purchase data**.

Then on **terminal** run following command after navigating to the folder containing Slooze_Tasks.py:

```
python Slooze_Tasks.py
```