Steps to run the codes on Jupyter notebook through Ananconda.

Prerequisites/ Software required

-Python 3.x

-Anaconda Latest version

-Pyflux libray need to be installed in Anaconda

To install the pyflux library

- Open the Anaconda Command Prompt
- Type in the following line and press enter
    - `pip install pyflux`
- It will be downloaded and installed in Anaconda, therefore requires an active internet connection while running the above command.

Basic Steps

1. Unzip the folder to a preferred location
2. Open Anaconda Navigator sand launch the Jupyter notebook
3. Using the Jupyter notebook, navigate to the project folder

Running the ARIMA Model Code

- Go to the "ARIMA" Folder through Jupyter notebook
- Click on the file named "ARIMA Time Series Modeling.ipynb".
- After it opens, click on each code cell and Run in order starting from the first cell.

Running the ARIMAX Model Code

- The ARIMAX model is used separately for both cities and they are on separate files.
- To do the prediction on Iquitos
    - Open the file named "arimaxIquitos.ipynb" and click and run each cell starting from the top cell.
    - If the "predicting_Iquitos.csv" file is already in the Project Folder then delete it before running the code. Or you can change the '.csv' file name of the following code which is at the last cell. Then the predicted values will be written into a different file.
      "predictions.to_csv(***'predicting_Iquitos.csv'***, sep=',', encoding='utf-8')"
      EX: ***'predicting_Iquitos.csv'*** → 'file_name.csv'
- To do the prediction on San Juan
    - Open the file named "arimaxSanJuan.ipynb" and click and run each cell starting from the top cell.
    - If the "predicting_SanJuan.csv" file is already in the Project Folder then delete it before running the code. Or you can change the '.csv' file name of the following code which is at the last cell. Then the predicted values will be written into a different file.
      "predictions.to_csv(***'predicting_SanJuan.csv'***, sep=',', encoding='utf-8')"
      EX: ***'predicting_SanJuan.csv'*** → 'file_name.csv'