

REPORT

Lab8.Pandas Time Series Analysis

In this lab we have practiced on Time series analysis and how to set index with specific column - resample a specific column or entire data frame - shift data forward and backward - shift time index with day, month, year and so forth - compute rolling window mean - Create time series charts.

First, import necessary libraries and load the dataset "amazon.csv".

Remove unwanted columns and make "Date" column as index then convert "date" string into actual date object

Understand stock data by plotting

- The Open and Close columns indicate the opening and closing price of the stocks on a particular day.
- The High and Low columns provide the highest and the lowest price for the stock on a particular day, respectively.
- The Volume column tells us the total volume of stocks traded on a particular day.

Split the date into year, month, day, hour, minutes, seconds and perform aggregate function.

Resampling entire data frame and plot according to given period

Shifting data forward and backward then perform basic panda operation and plot for better visualization

Rolling window or moving window operation on data then plot it.