CSE523: Machine Learning

Project Report Week- 7

➢ Team name.: **Tech_mak**

➢ Name & Roll no.:

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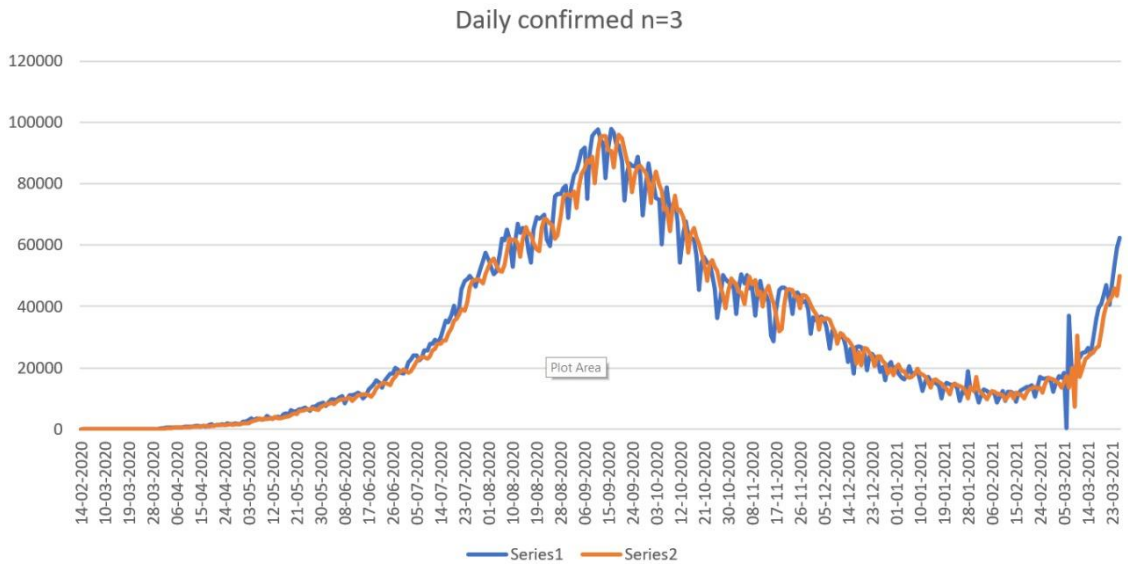
➢ Tasks Performed in the week

- Worked on time series analysis and auto regressive algorithms
- Perform Auto regression in excel on column of **Daily confirm cases**, **Daily recovered cases** and **Daily deaths**
    - Predict the current value using previous values of the same column(feature)
    - Perform auto regression by taking window as 3,4 and 5 days as previous independent variables
- Try to plot moving average in python using **pandas** library

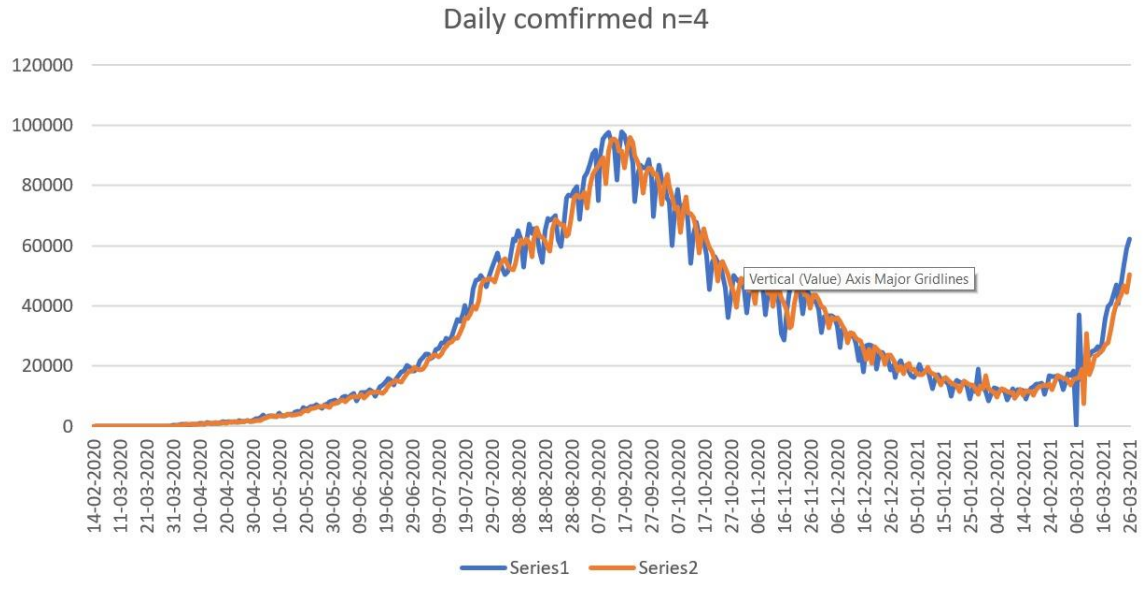
➢ Outcomes of the tasks performed

- Autoregression (AR) outputs for **Daily confirmed cases** of India by taking window as 3 days



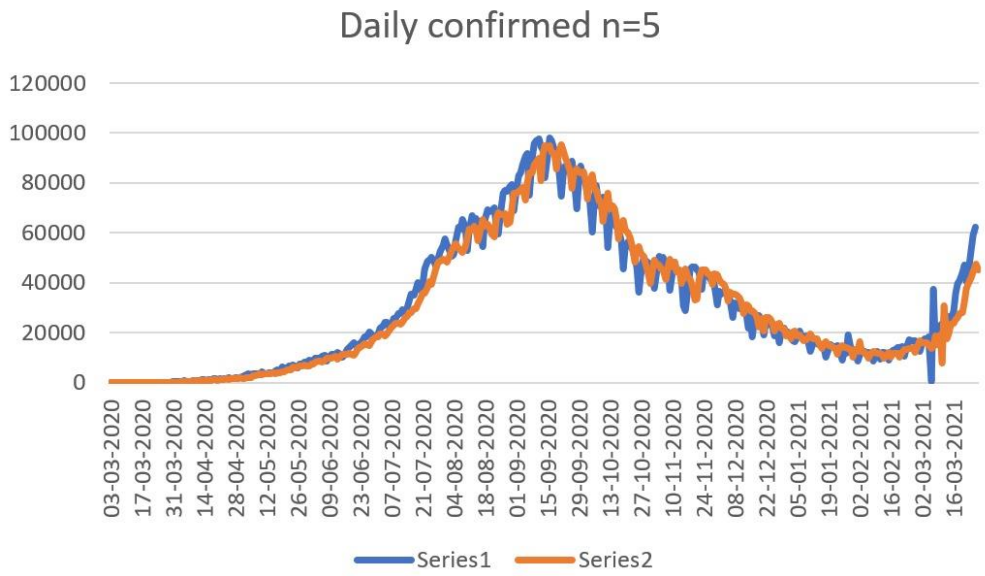
For this we got 97.49% accuracy

- Autoregression (AR) outputs for **Daily confirmed cases** of India by taking window as 4 days



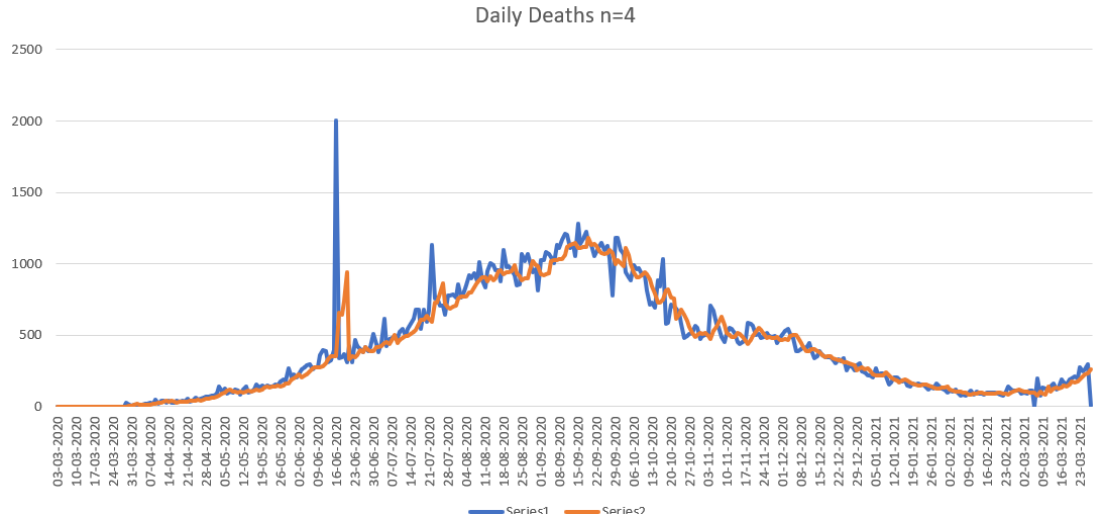
For this we got 97.50% accuracy

- Autoregression (AR) outputs for **Daily confirmed cases** of India by taking window as 5 days



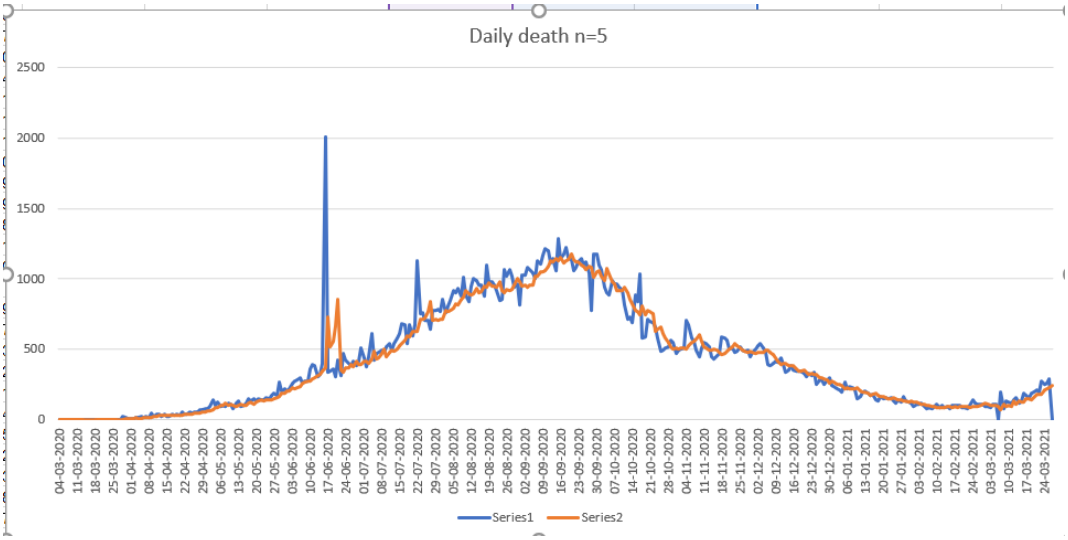
For this we got 97.51% accuracy

- Autoregression (AR) outputs for **Daily Deaths** of India by taking window as 4 days



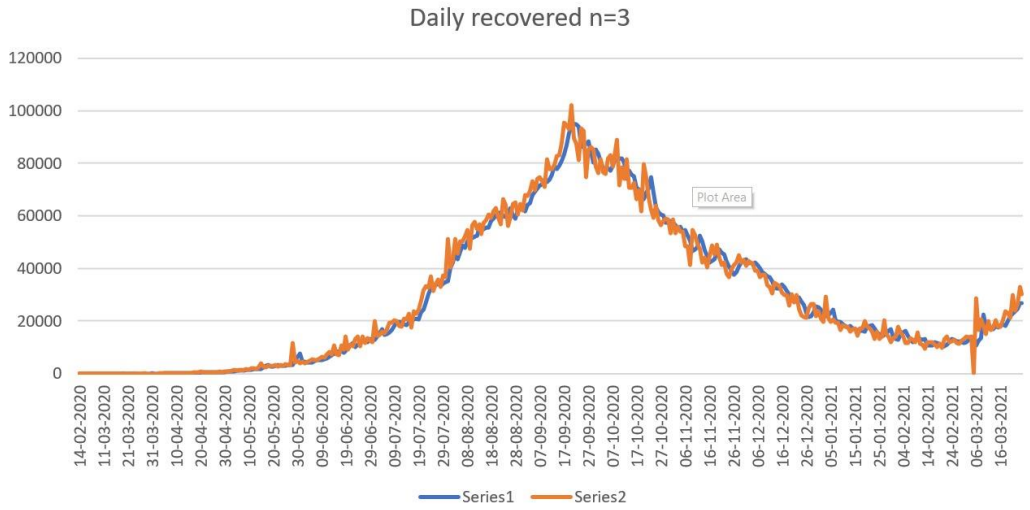
For this we got 89.98% accuracy

- Autoregression (AR) outputs for **Daily Deaths** of India by taking window as 5 days



For this we got 90.46% accuracy

- Autoregression (AR) outputs for **Daily Recoveries** of India by taking window as 3 days



For this we got 98.24% accuracy

- **Got good efficiency of Moving Average (MA) for all the columns(features) except Daily Deaths**

➢ Tasks to be performed in the upcoming week

- Implement moving average (MA) and autoregression (AR) using python for our dataset
- ARIMA and ARMA will be the combination of moving average (MA) and auto regression (AR)

- Will Try to implement algorithms to the datasets