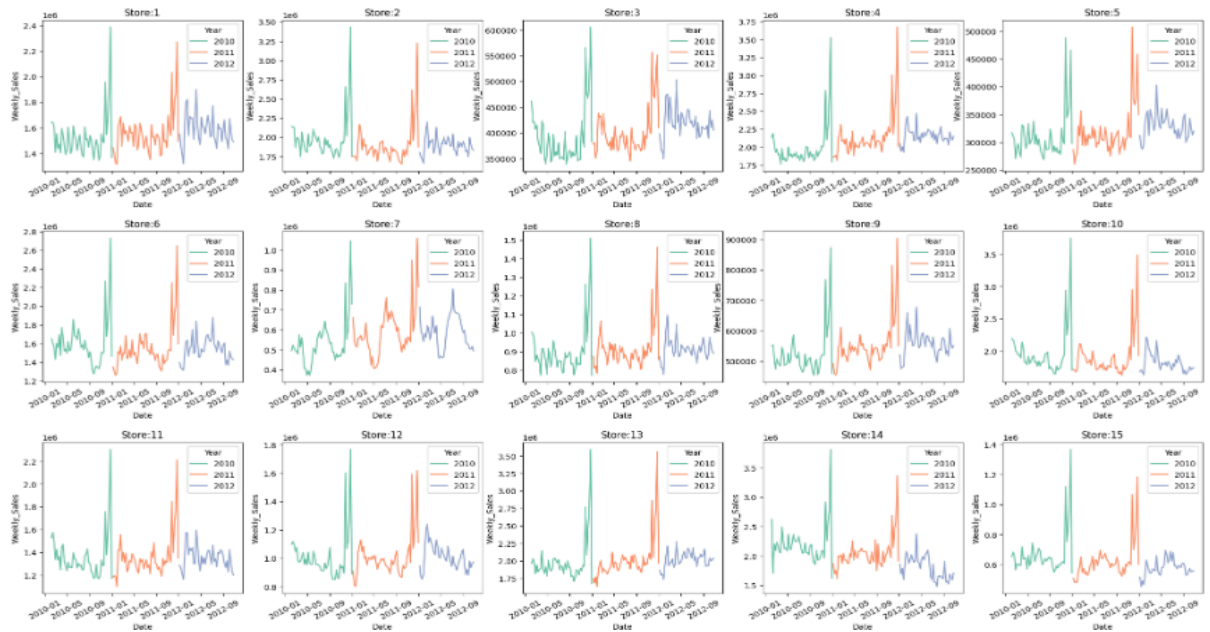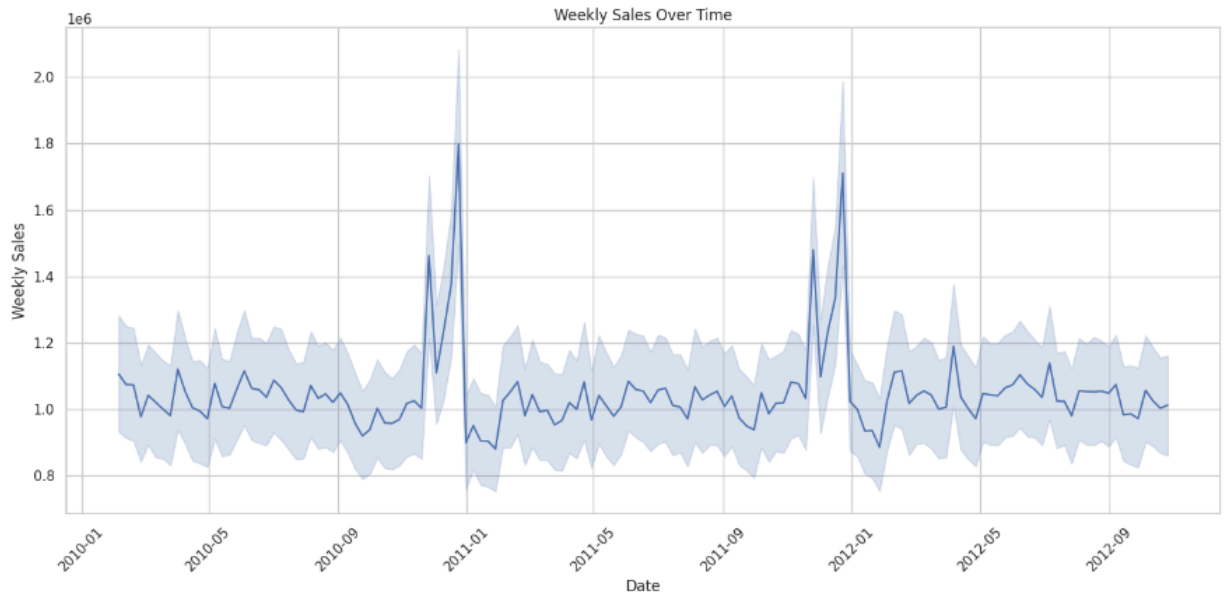# Walmart Sales Dataset Insights :

- Data has 6435 rows and 8 column which are clean that is there are no missing , duplicate and null values.

- Top Performing Stores by Total Weekly Sales are stores : 20 , 4 , 14 , 13 and 2.

- The worst performing is store 33 which needs to be focused.

- The weekly sales was highest from week 47 to week 52.
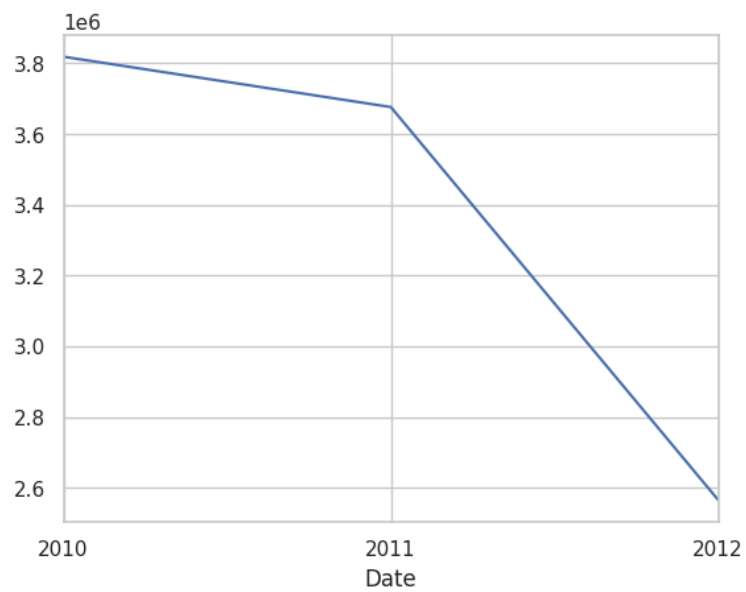
- Weekly sales of each store :

- Weekly sales was highest from 2010-09 to 2011-01
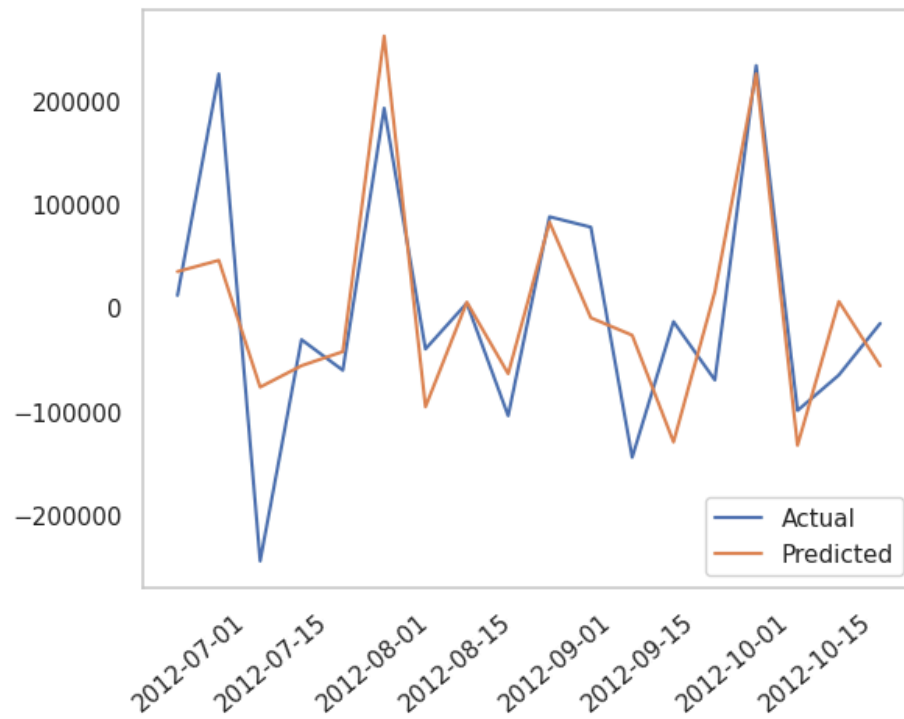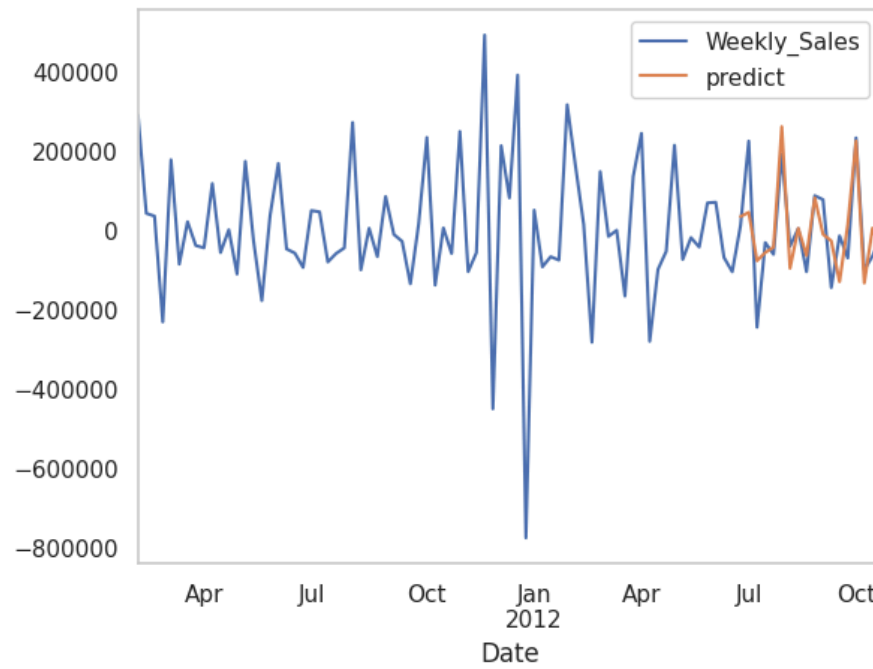
Weekly Sales Over Time

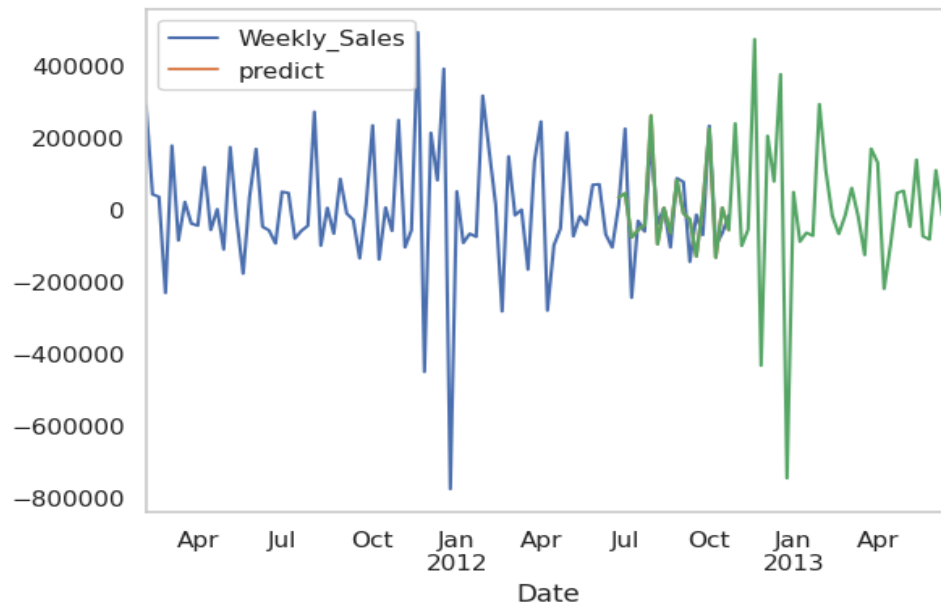- The total sale decreased continuously from year 2010 to year 2012

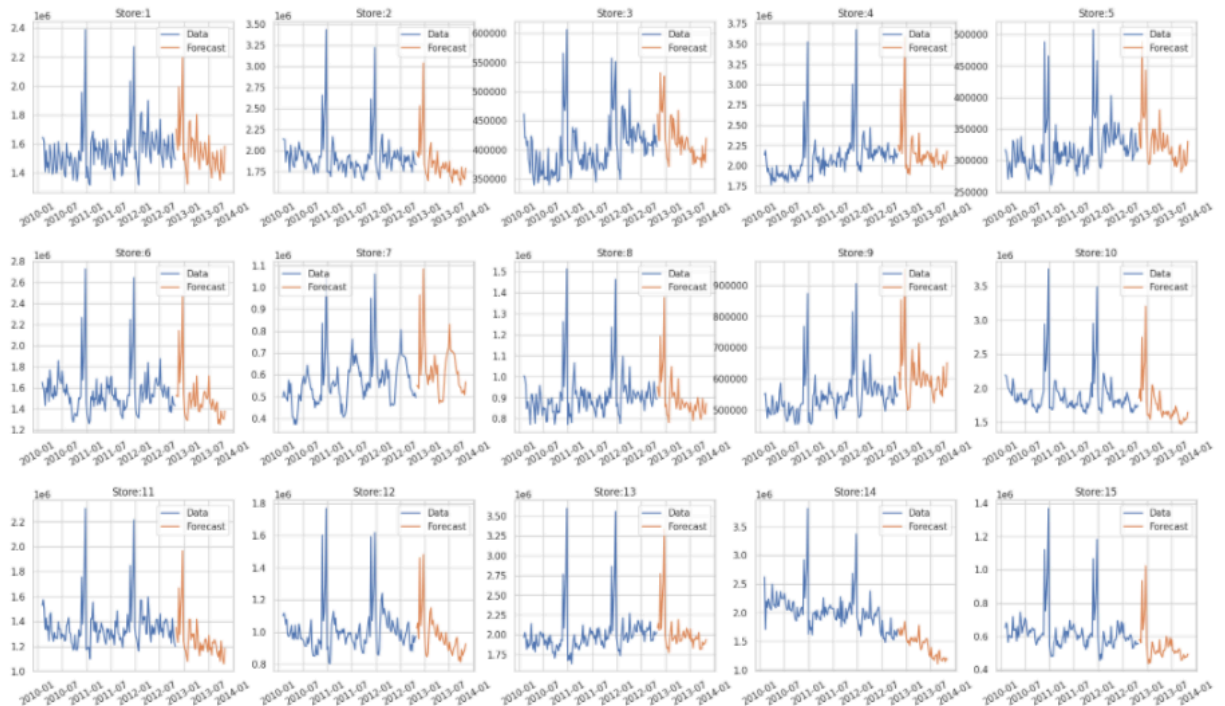- The data is stationary as the p value is less than 0.05

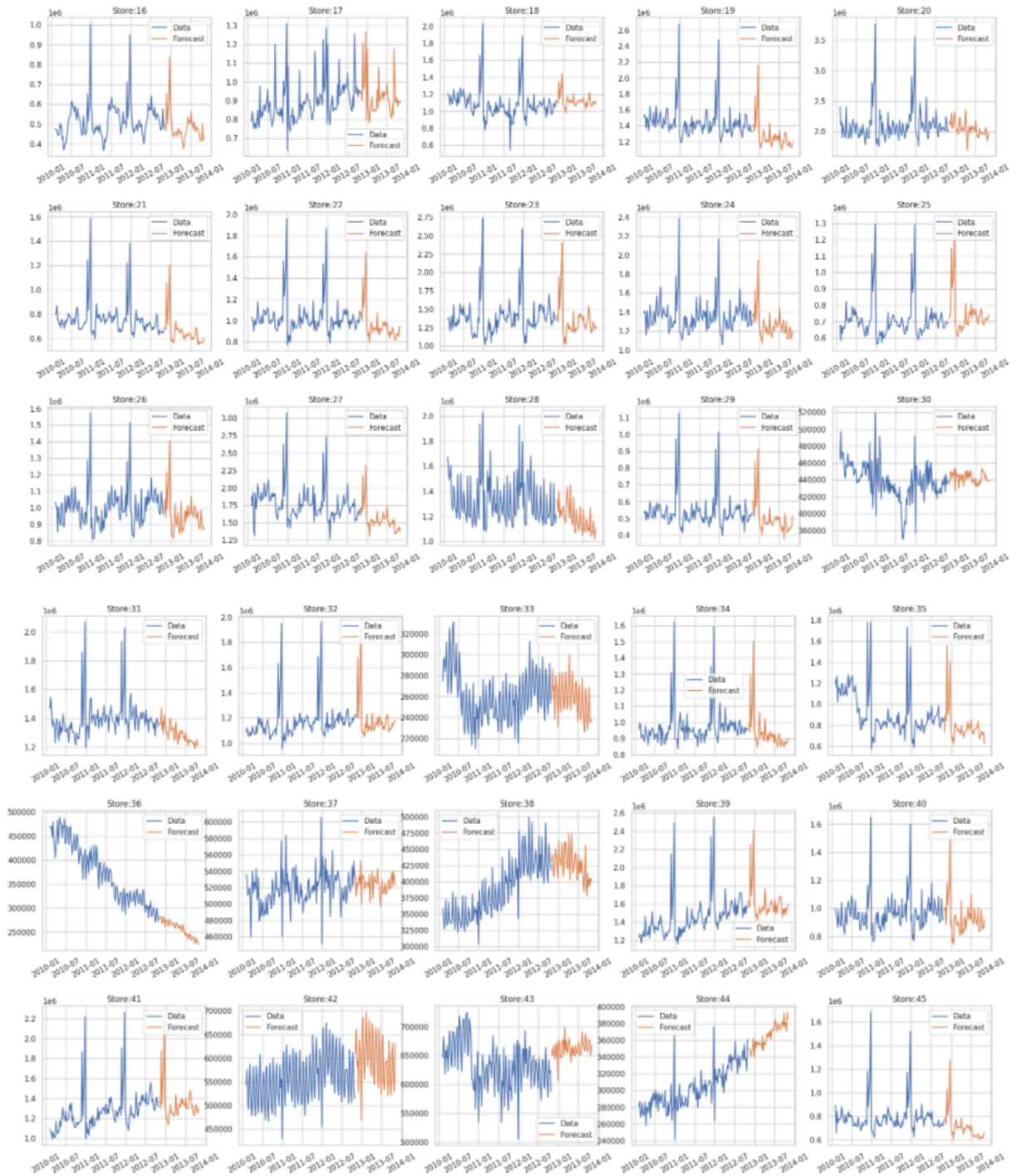● Sales prediction using SARIMAX model
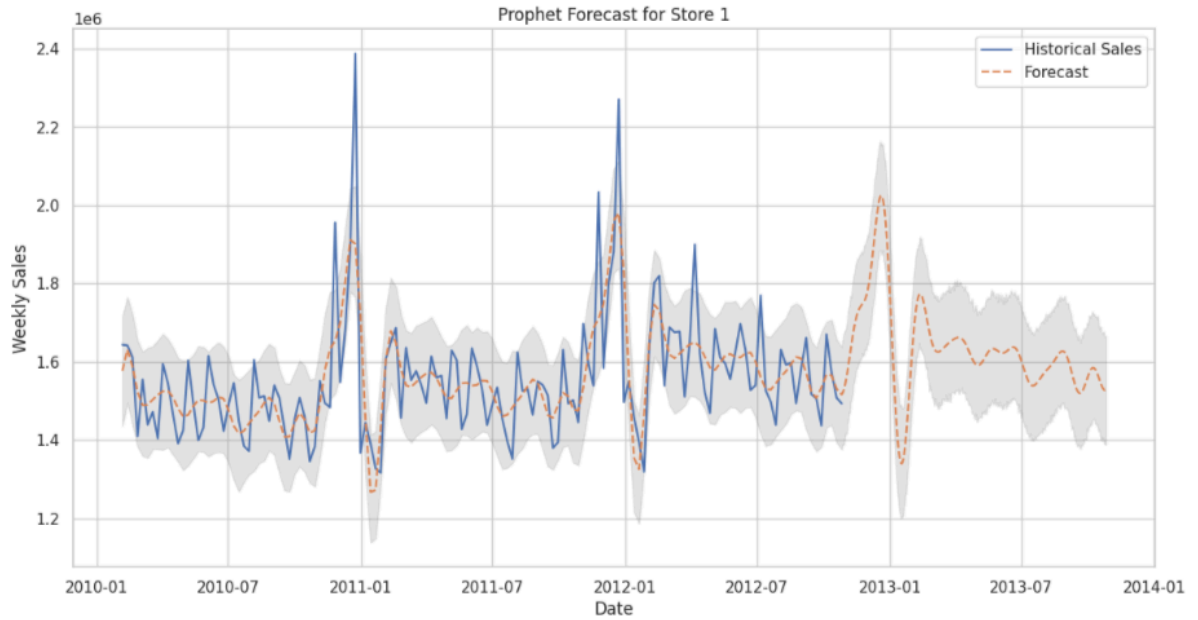
- Sales forecast for the next 1 year

- The R2 score obtained is 0.5542 and Mean Squared Error is 6741846805.20
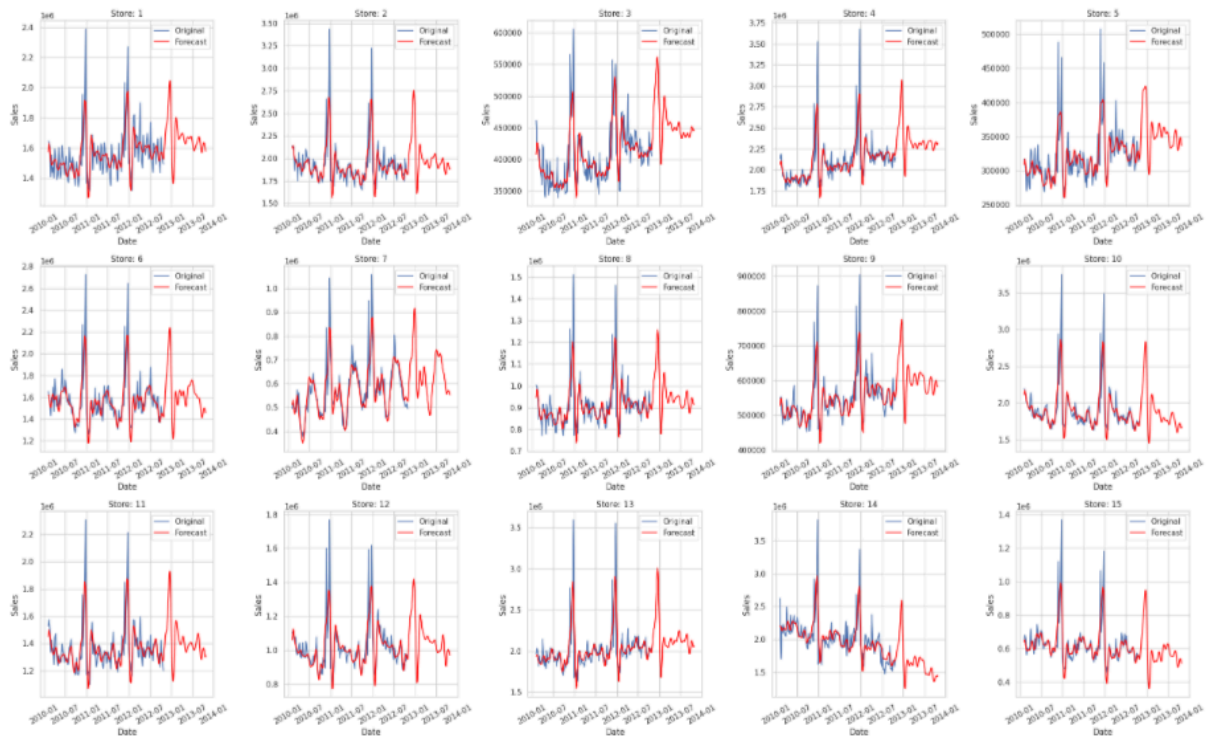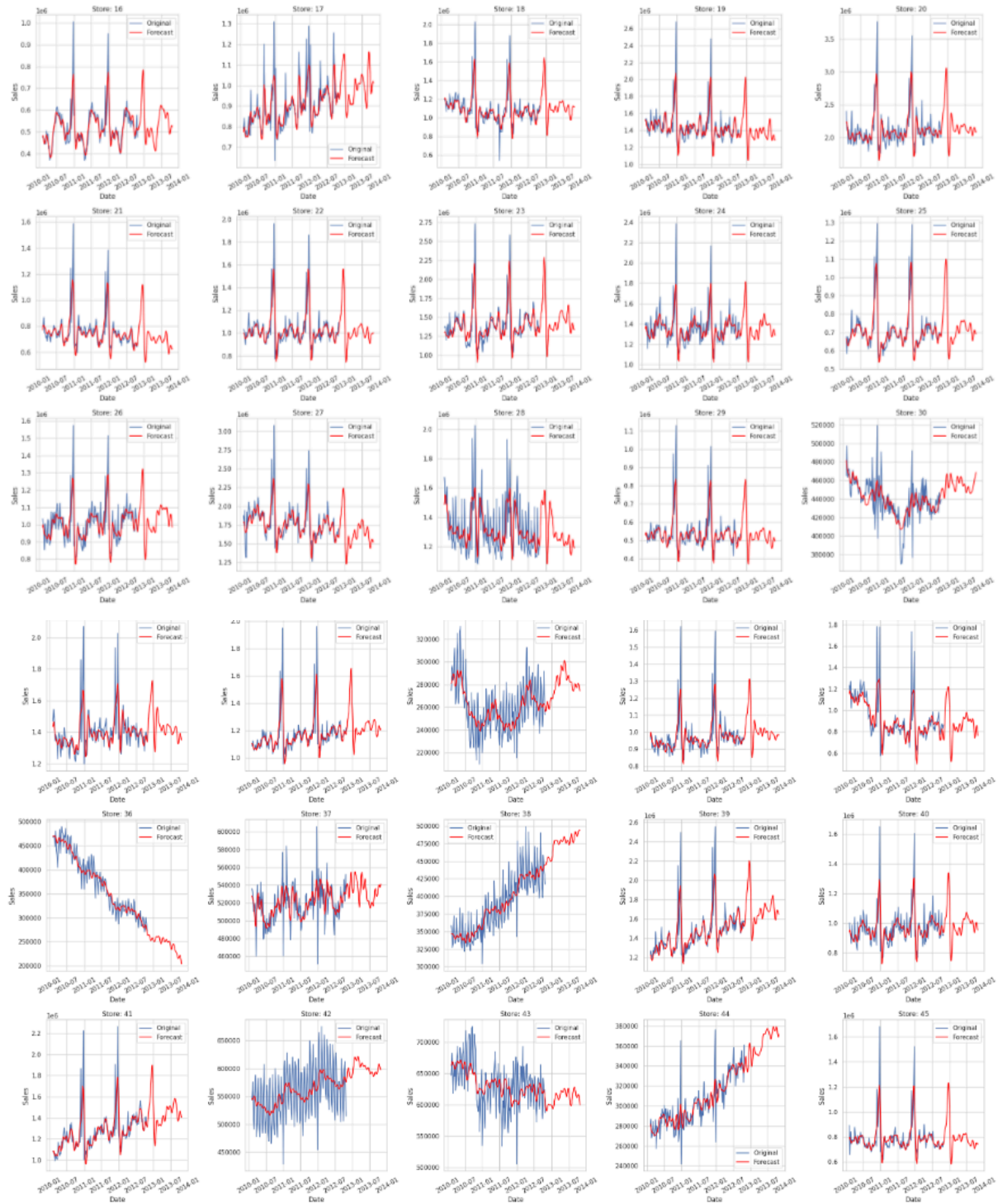
- Forecasting for all the 45 stores:

- From the above graph we can see that the Stores 14,20,28,30,31,37,44 are having poor forecasting. Overall 38 stores out of 45 are forecasted well successfully using the SARIMAX model with the order = (1,0,1) and seasonal order = (1,0,1,52).

- Forecasting using Prophet Model:

Prophet Forecast for Store 1

- Forecasting for all the 45 stores:

- The R2 score of this model is 0.5307 and the Mean Squared Error is 11336025141.25.