Forecasting Project

Superstore Sales Problem

Posted on April 24 – due by May 5

Project is done in groups, each of maximum 5 members.

Step 1

- For furniture sales and office supplies sales, use the sum of daily sales value for each month, and use the start of each month as the timestamp.
- Then visualize the data of furniture sales and office supplies sales by graphing the data vs. time.

Step 2

Write a computer program using R, Python, or Matlab that forecasts the monthly furniture sales and office supplies sales for year 2018 using each of the following forecasting techniques:

(a) 4 period moving average.
(b) Exponential smoothing (α **= 0.1, 0.5**), visualize the resulting forecast time series of both alpha. (comment on the obtained results)
(c) Multiplicative decomposition technique, visualize the time series into four distinct components: trend, seasonality, cycle, and noise (residuals).

Step 3

Compare between the forecasting techniques in (a, b, c) above using MSE, MAPE, LAD.