CSE 587
DATA INTENSIVE COMPUTING
SPRING 2015
PROGRAMMING ASSIGNMENT #2 – REPORT

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1. RESULTS:

i) Linear-Regression Model:

Stock Name	Sum of MAE
GRVY	0.1130815
ELON	0.1708333
SMSI	0.2753055
PCTI	0.3298646
BYFC	0.3330336
LFVN	0.3604605
TAIY	0.3694651
STB	0.3798104
STLY	0.3906403
BLRX	0.4163314

ii) Holt-Winters Model:

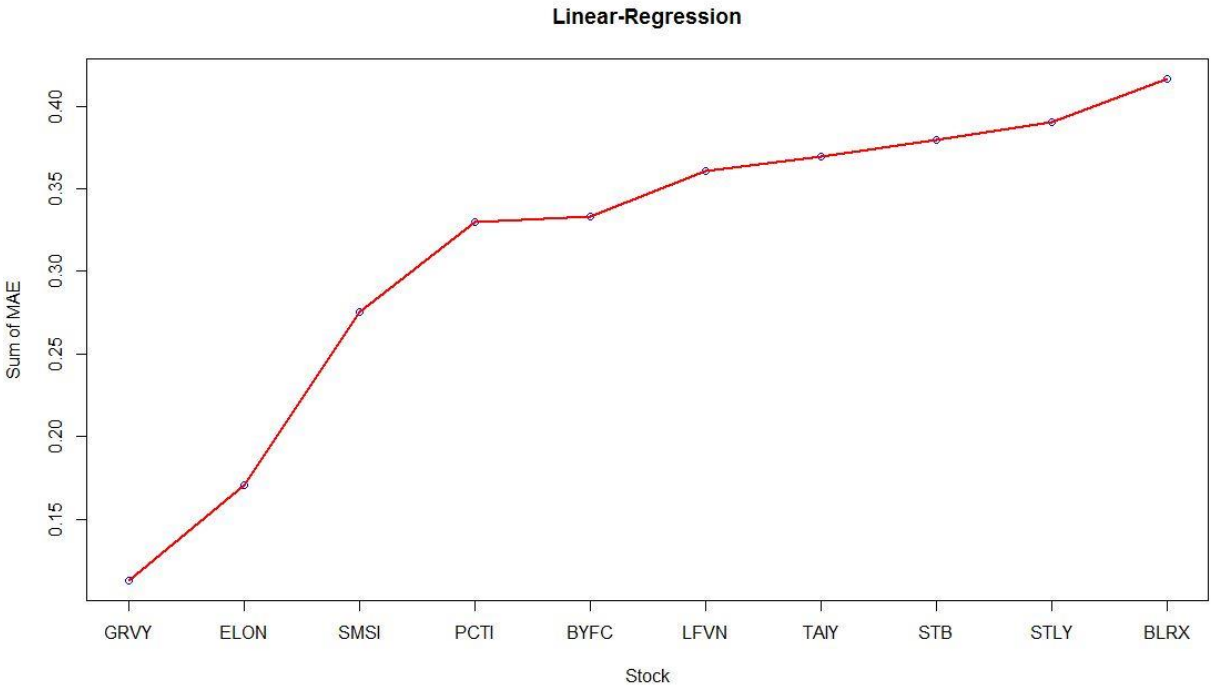
Stock Name	Sum of MAE
EDS	0.06022709
VLYWW	0.09000000
IKAN	0.09451631
JOEZ	0.09452480
APWC	0.09639256
MTSL	0.11008672
COCO	0.11565898
HNSN	0.12703413
TINY	0.13458633
IBCA	0.13481835

iii) ARIMA Model:

Stock Name	Sum of MAE
COCO	0.04291029
APWC	0.06308866
FREE	0.07480337
IKAN	0.09000000
SPU	0.09000000
ELON	0.11315610
VLYWW	0.11343679
MFI	0.12000000
ENZN	0.12096462
MTSL	0.12583623

2. GRAPHS:

i) Linear-Regression Model:



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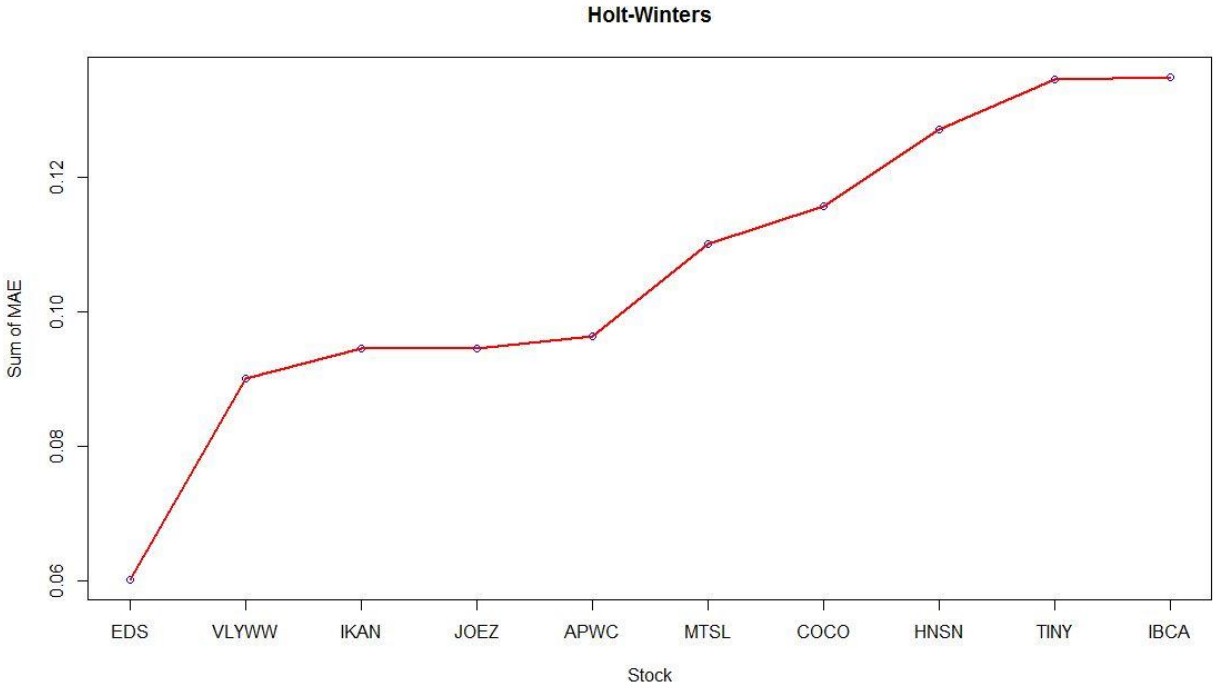
ii) Holt-Winters Model:



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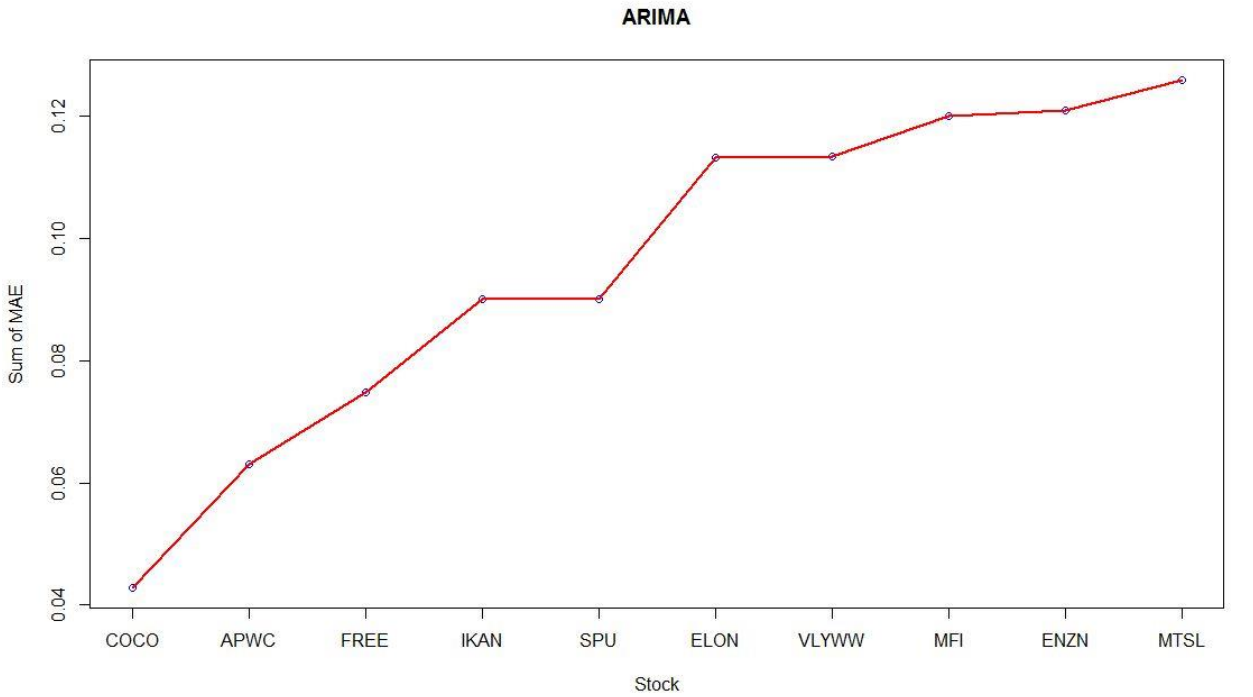
iii) ARIMA Model:



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3. PROBLEMS ENCOUNTERED IN THE ASSIGNMENT AND SOLUTIONS :

- I read the entries from the stocklist.txt file. This file had 2 bad entries JASOLtd. and ULTAInc. .csv files for these entries were not present in the data. So, I ignored these entries by explicitly writing a condition in if block.
- I was getting optimization error for Holt-Winters model. So, I made the parameter gamma = FALSE. This solved the problem for me.
- ARIMA model was taking almost 25-27 hours for completion without any parameters change. I tried manipulating some of the parameters and went with configuration which yielded best results along with smaller execution time.