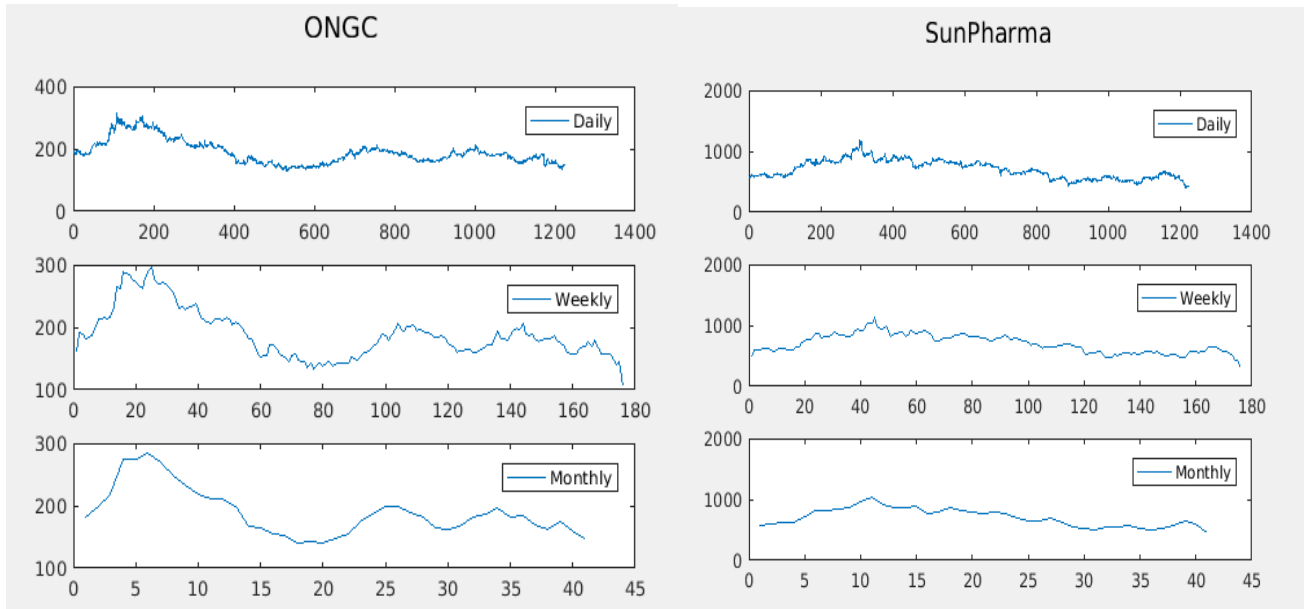


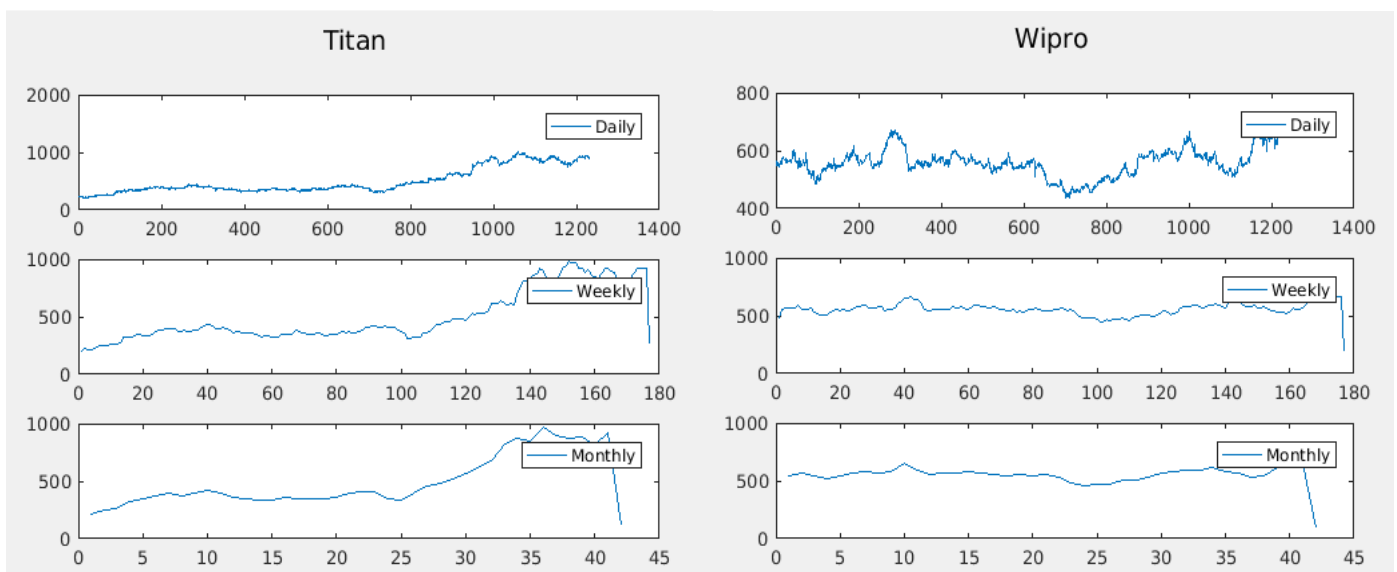
Question 01

The price against time plots for 2 stocks from each NSE and BSE are given below:

From NSE:



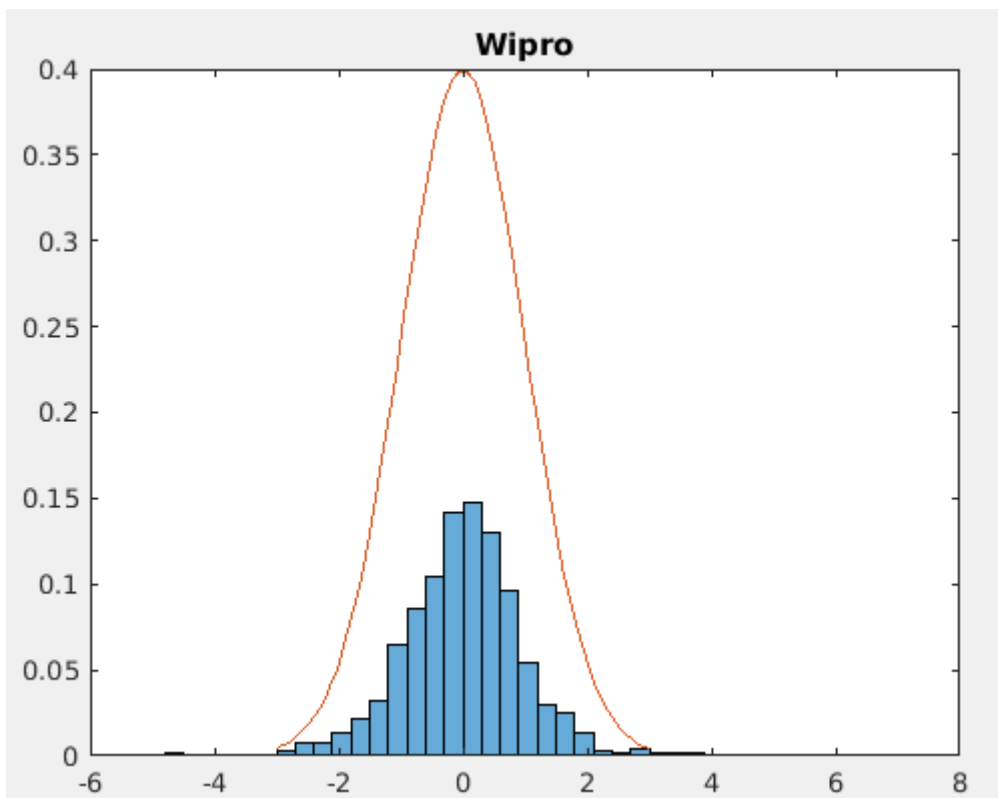
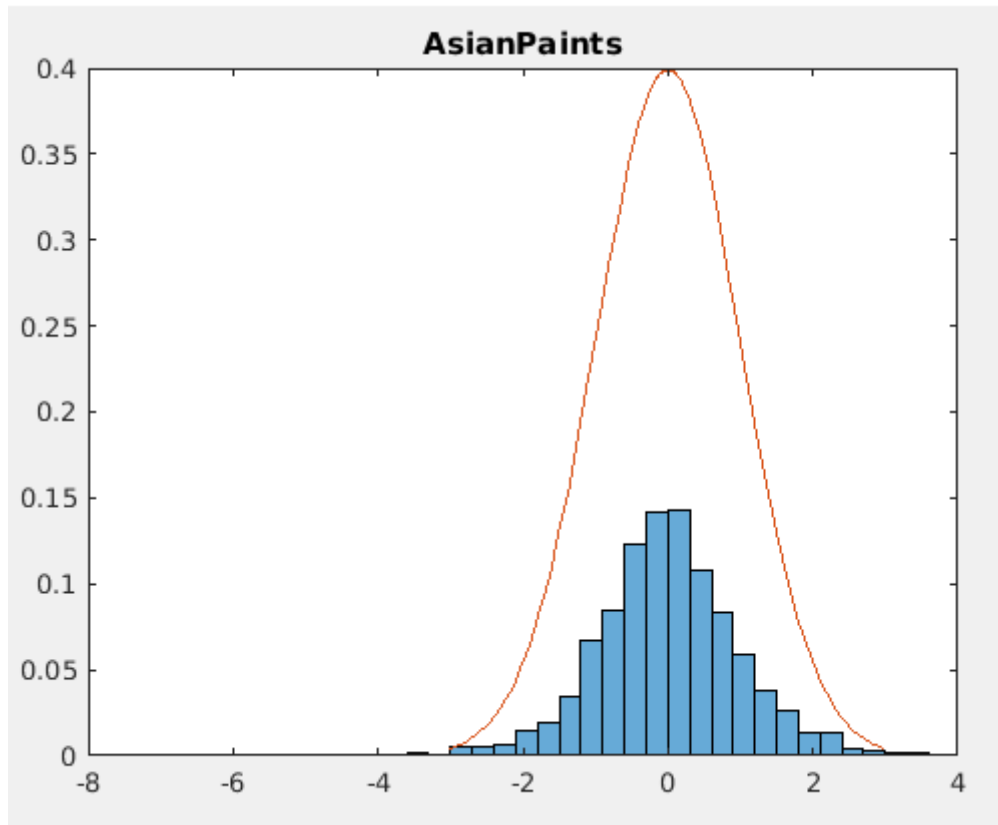
From BSE:



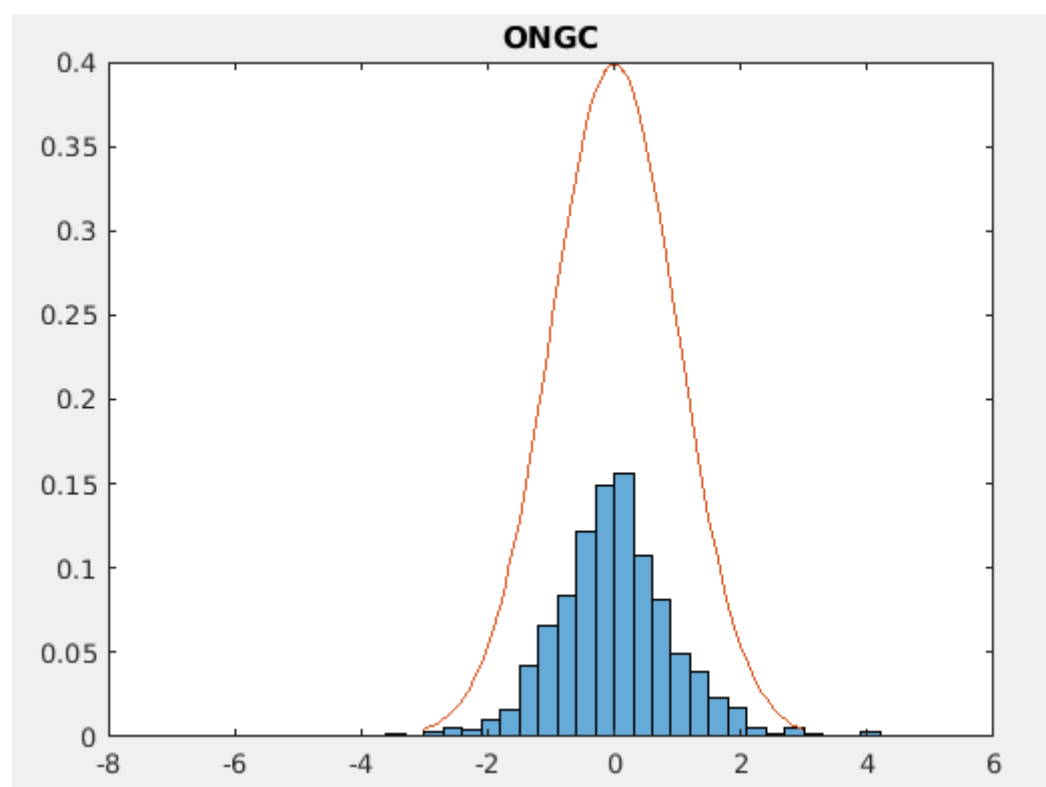
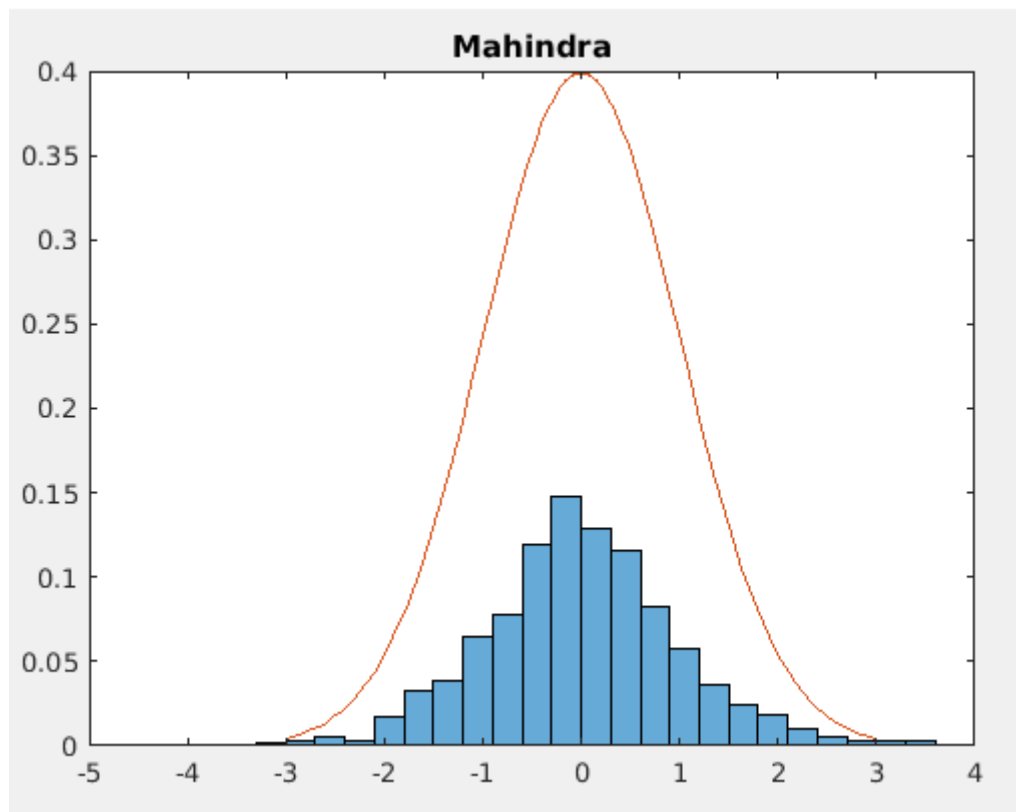
Question 2

Histograms of the return of stocks from bse,nse superimposed with a graph of the density function $N(0,1)$ are:

BSE:



NSE:

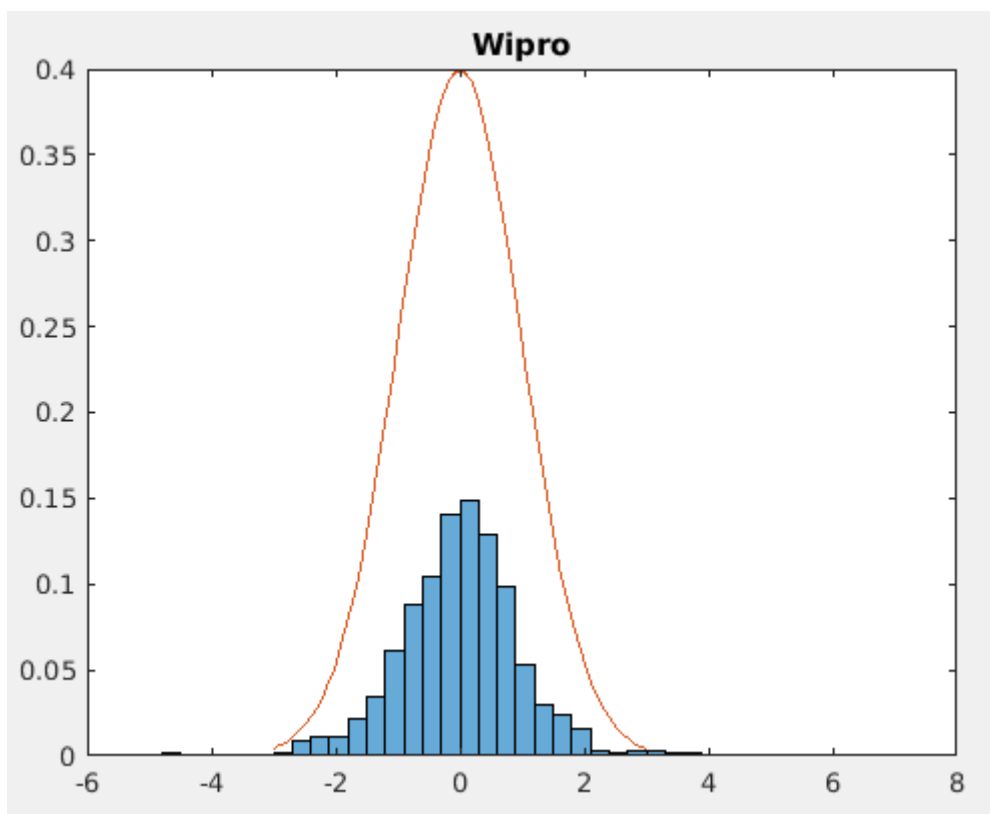
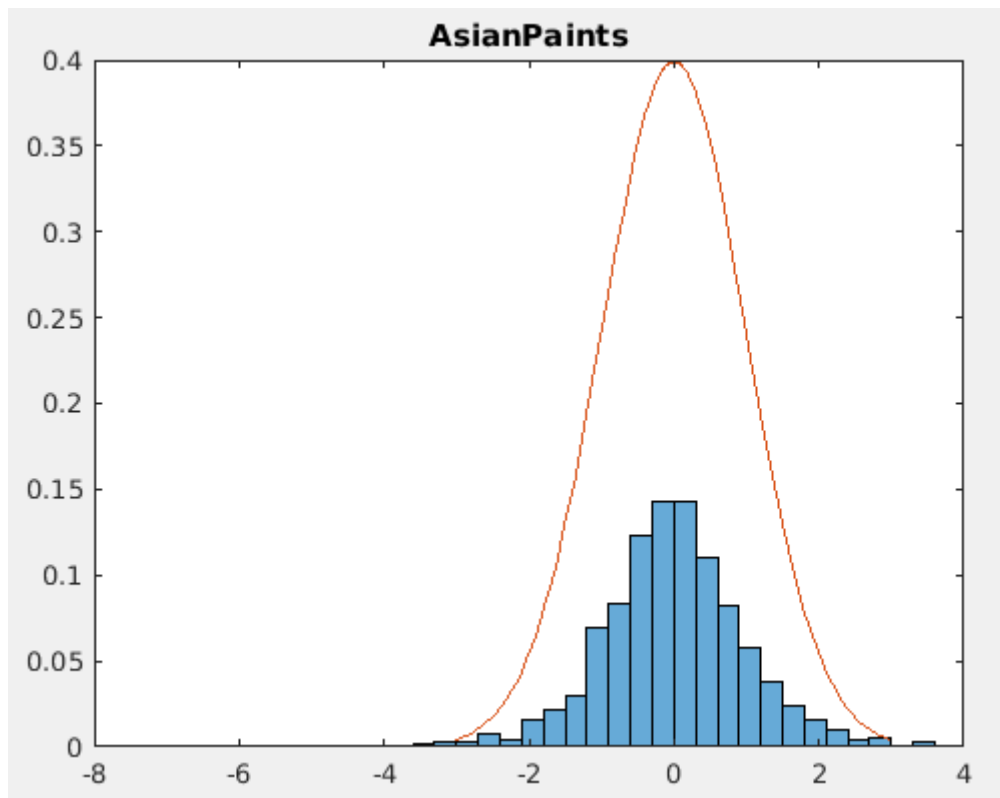


I was not able to observe any samples in the tail region of each histogram.

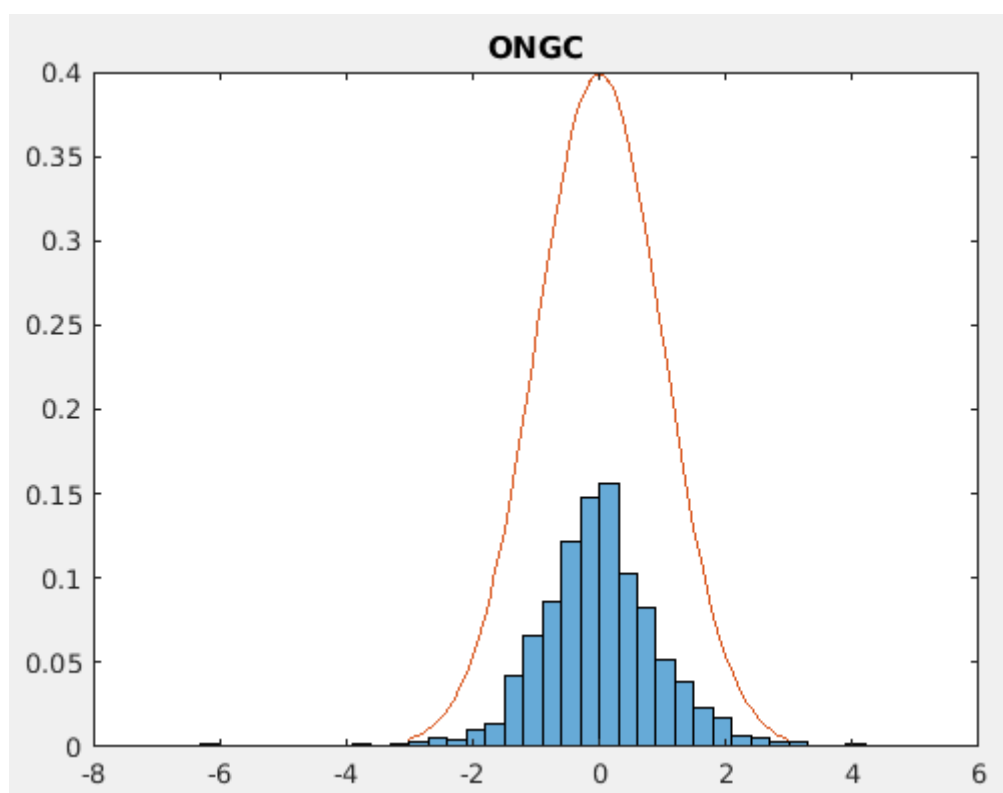
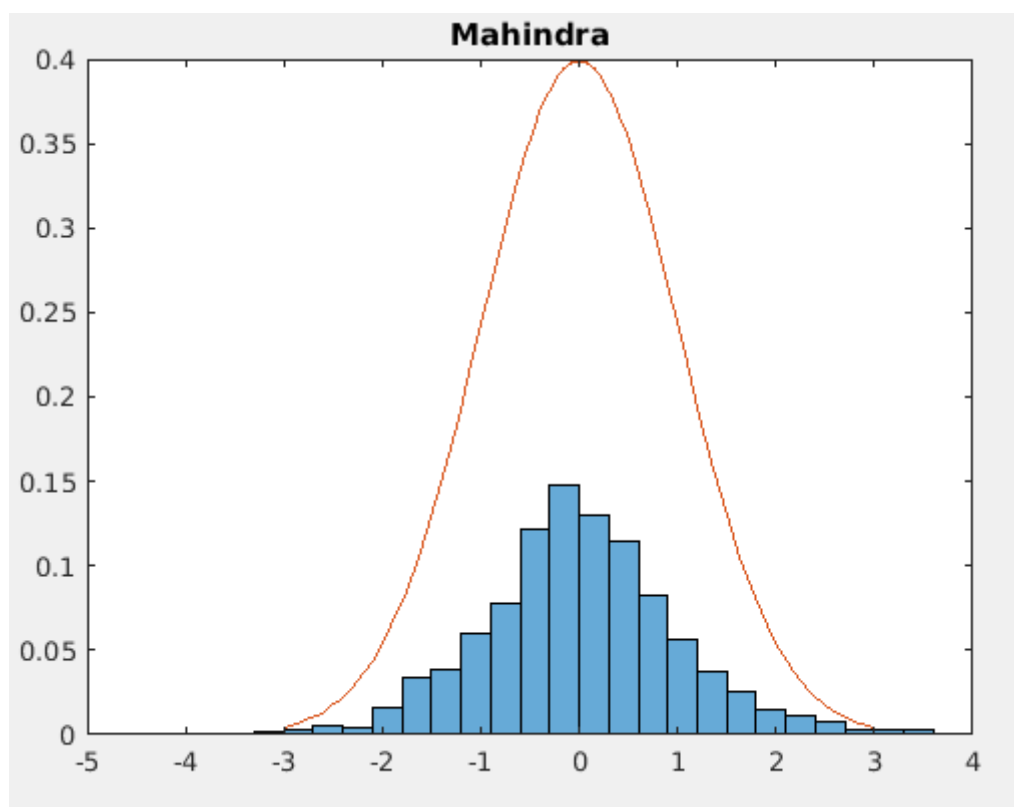
Question 3

Histograms of the log return of stocks from bse,nse superimposed with a graph of the density function $N(0,1)$ are:

BSE:



NSE:

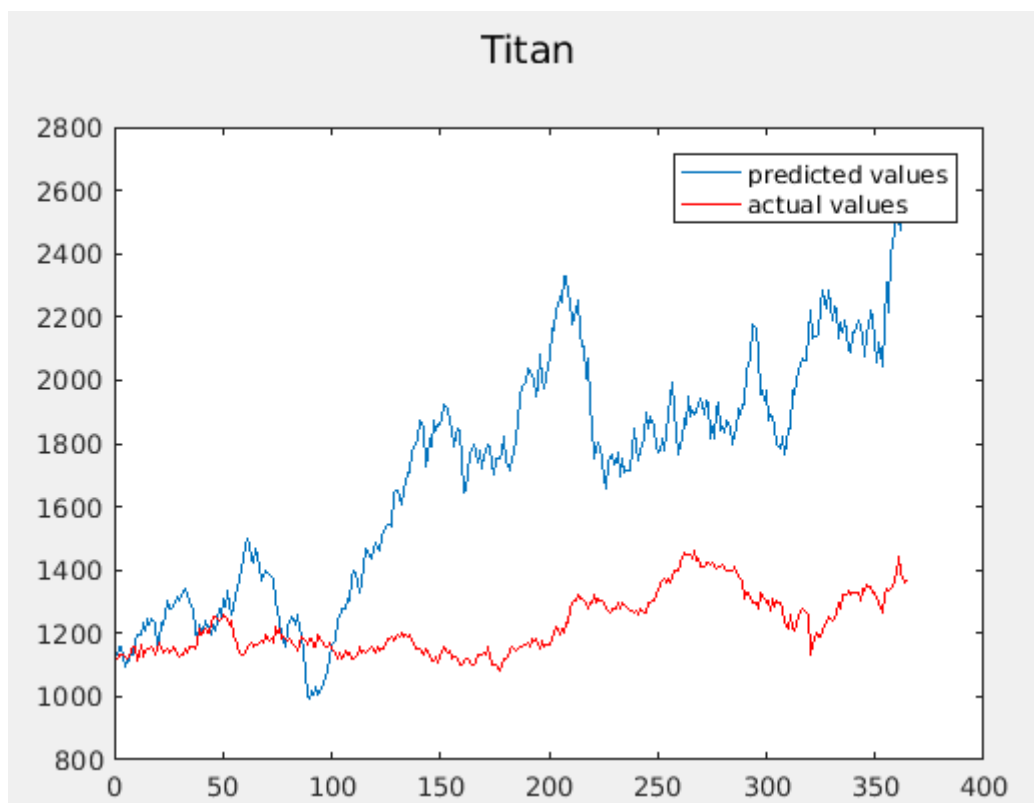
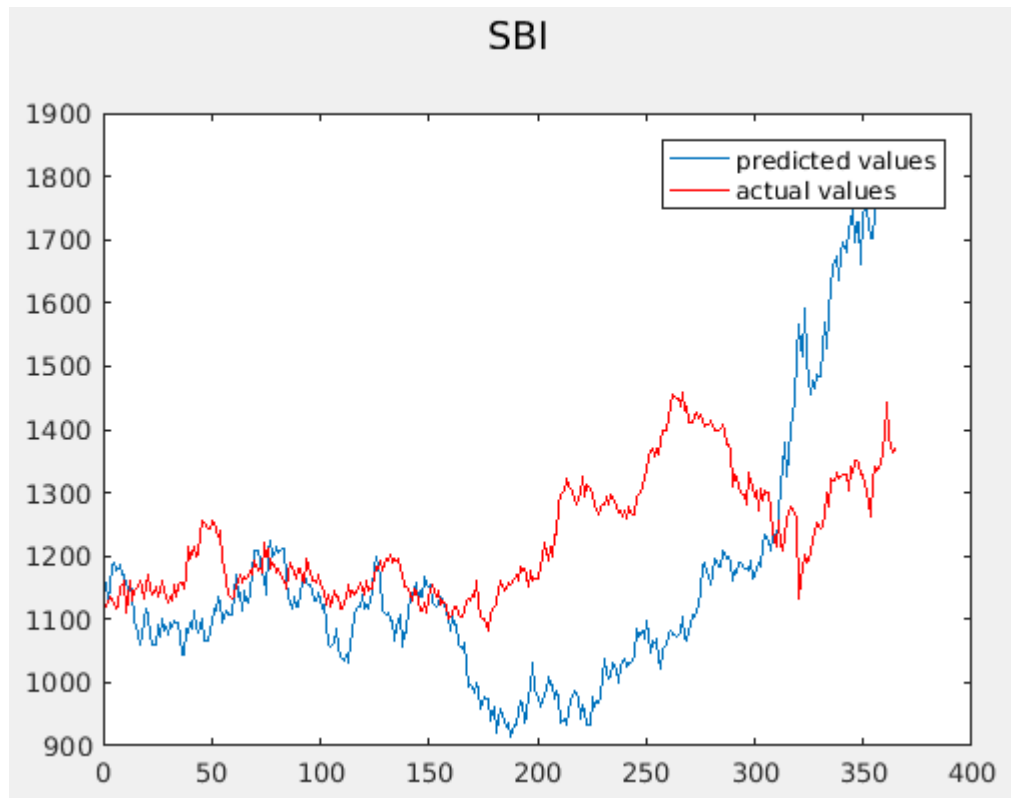


Yes, Using log returns the histogram fits the distribution better near the tails.

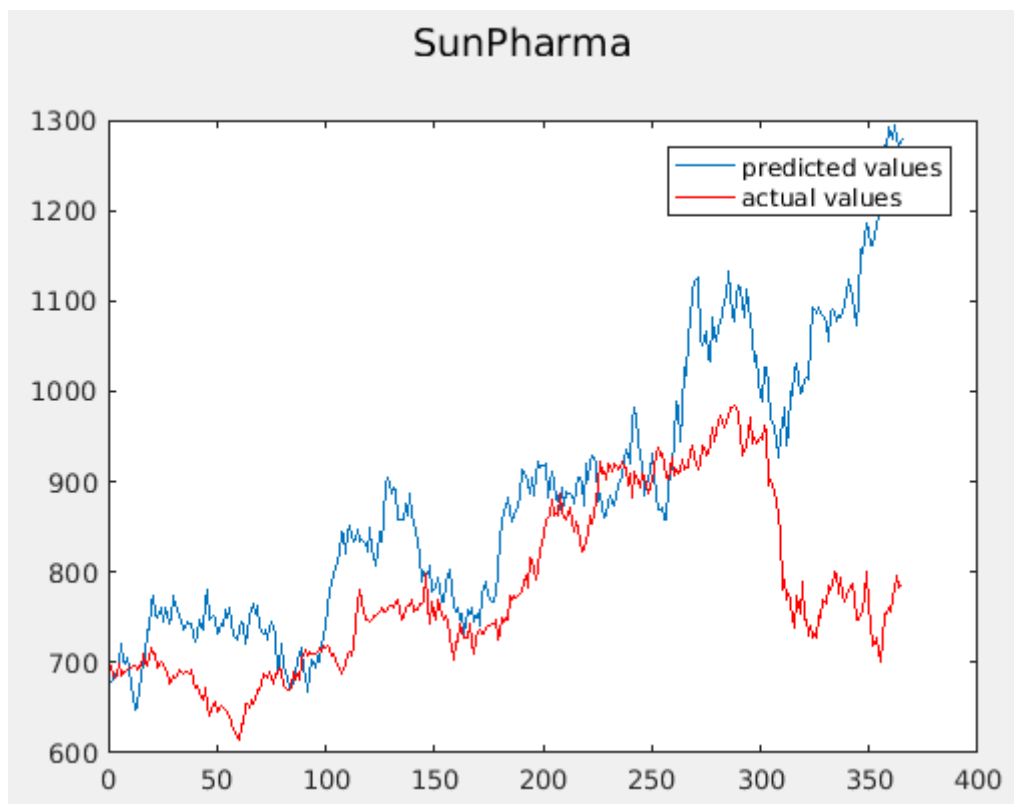
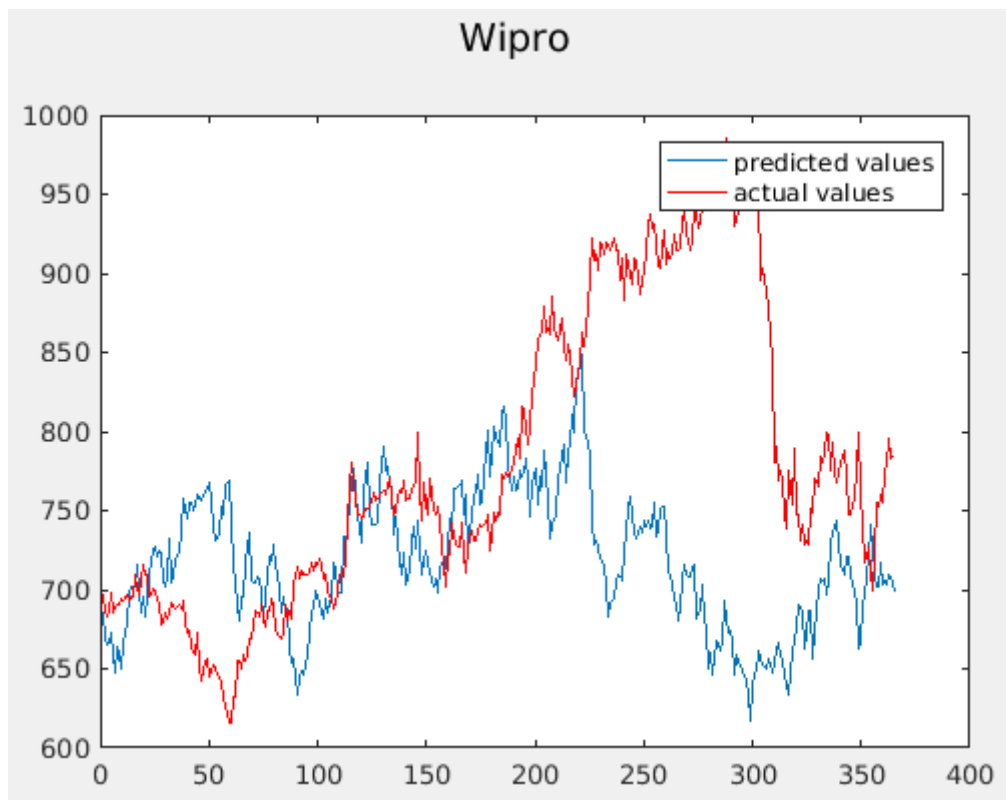
Question 04

The images actual and predicted paths of stock prices between 1/01/2018 and 31/12/2018 plotted against each other are given below:

BSE:



NSE:

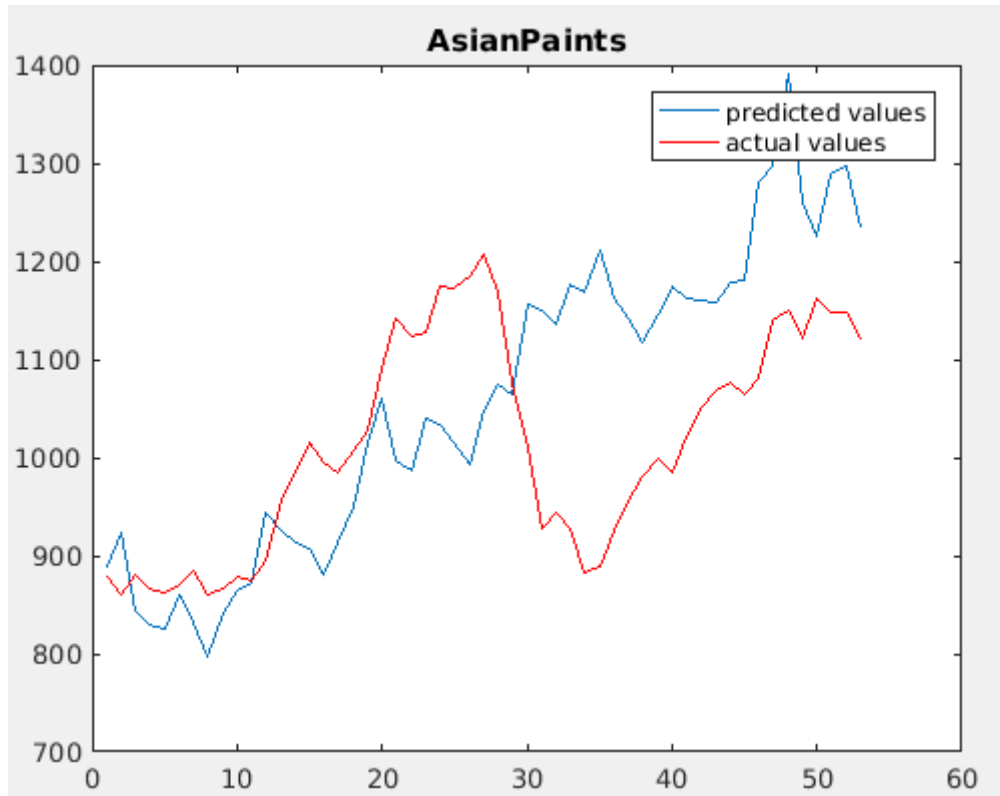


Question 5

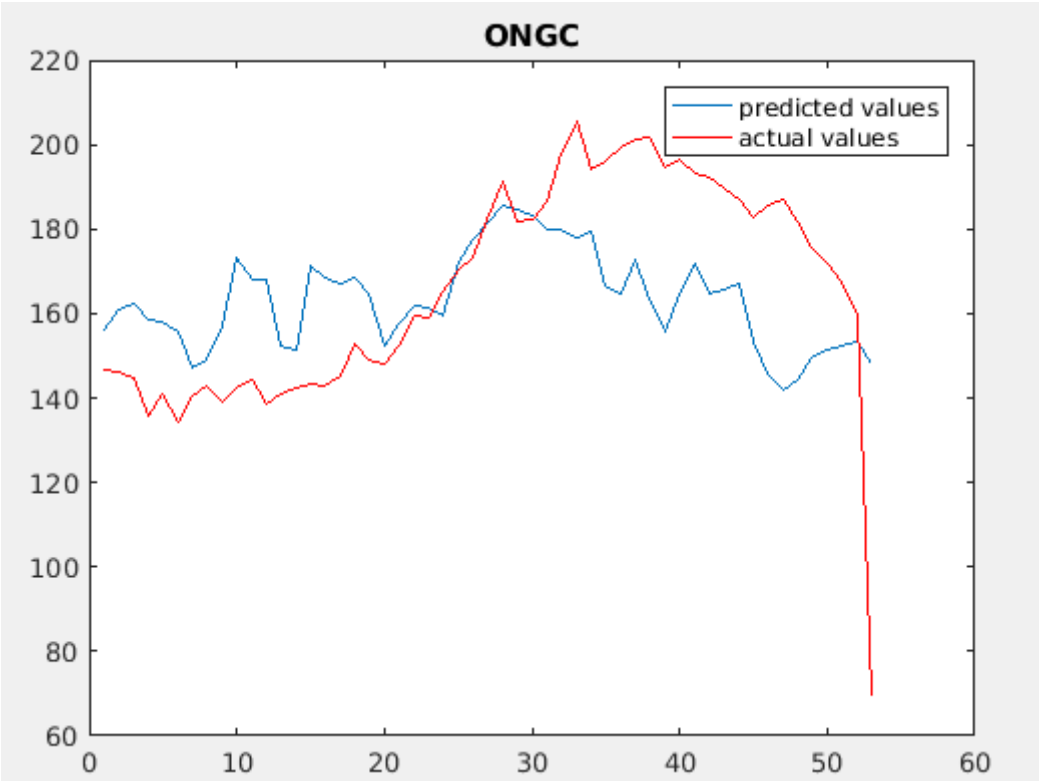
The images actual and predicted paths of weekly stock prices between 1/01/2018 and 31/12/2018 plotted against each other are given below:

WEEKLY

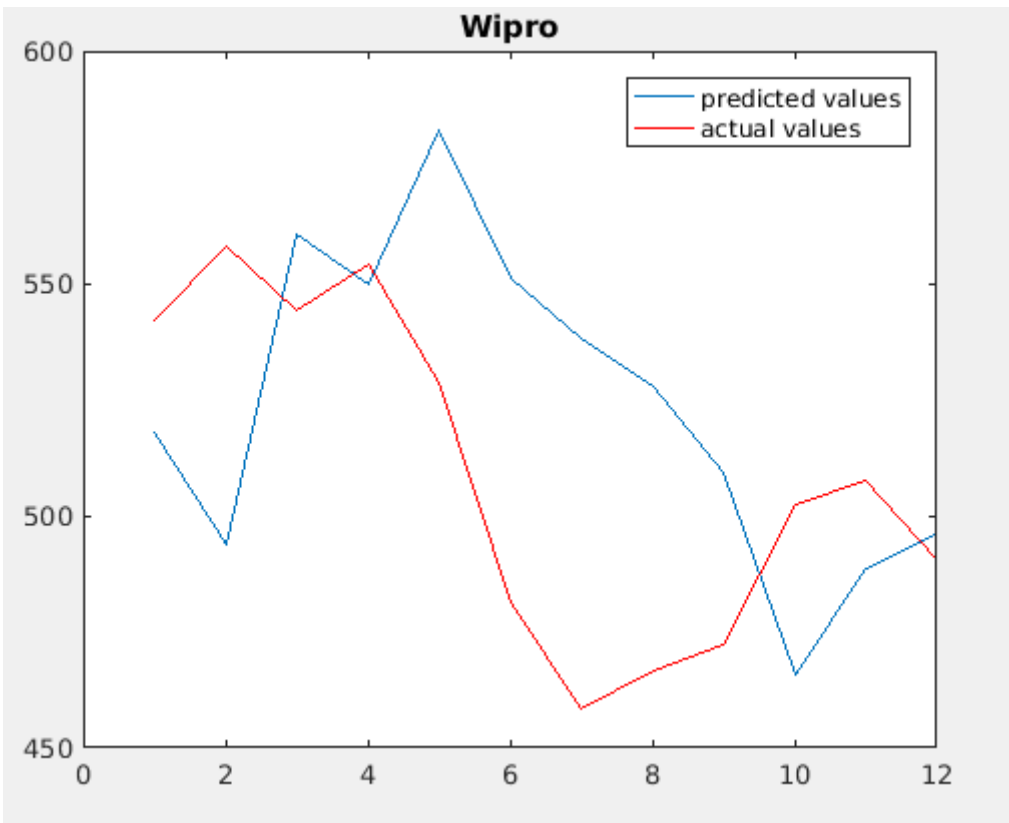
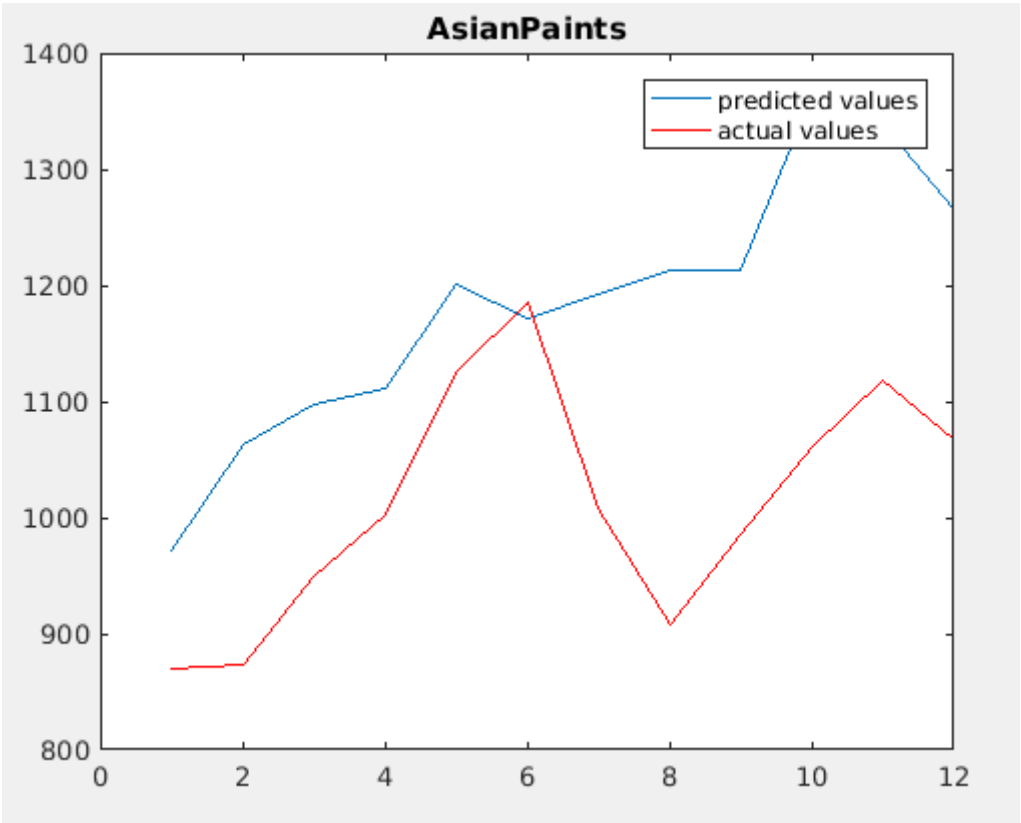
BSE:



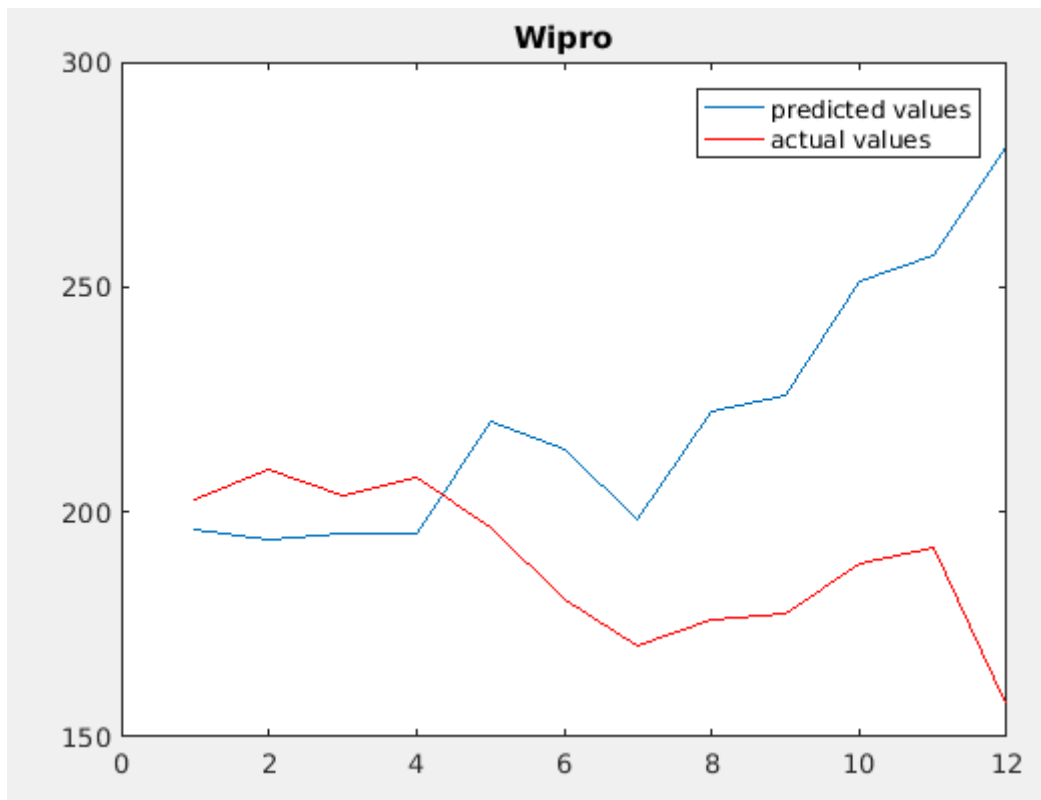
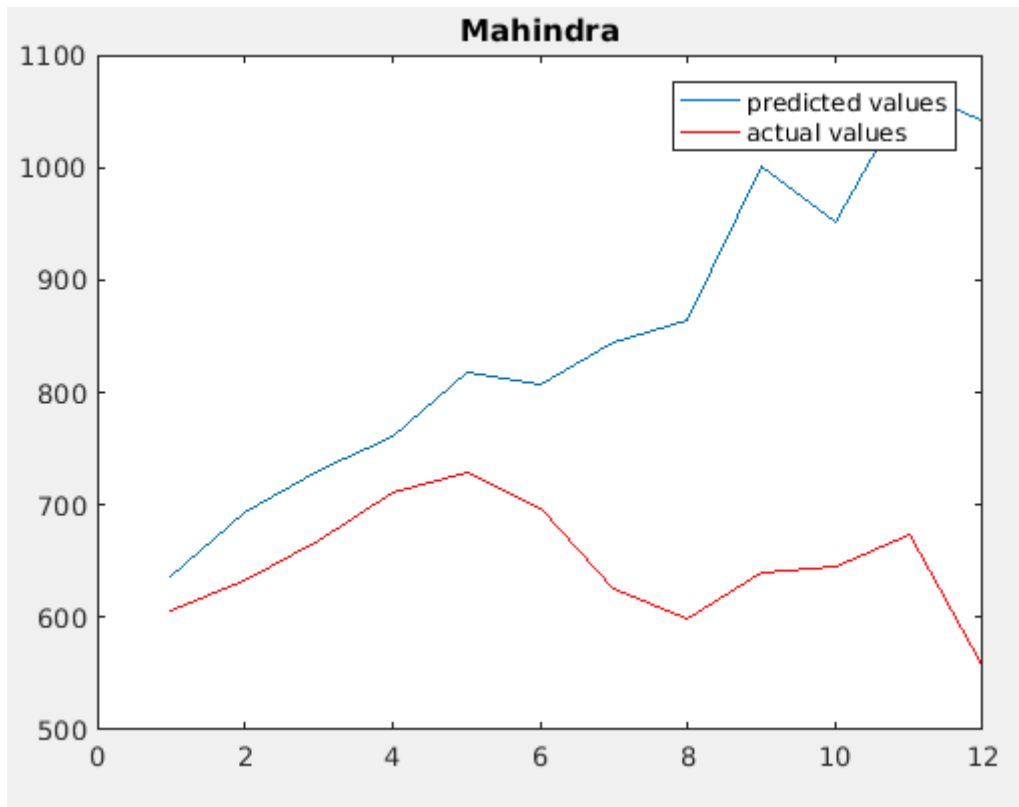
NSE:



MONTHLY
BSE:



NSE:



Since all the predicted values are functions of a normal random variable with predicted mean and variance any different behaviour can be accounted to the randomness, and sudden price drops(if any) are accounted to the unnoticed stock splits.