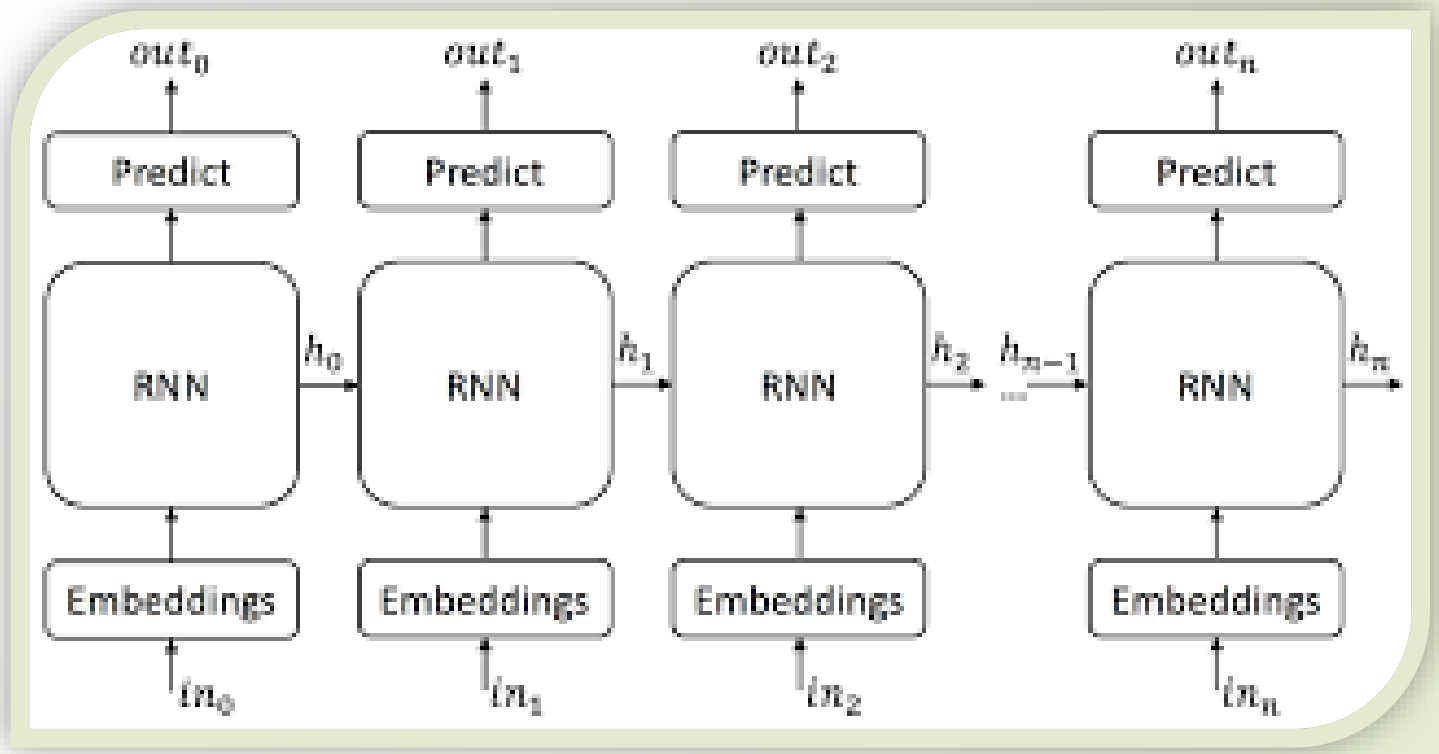
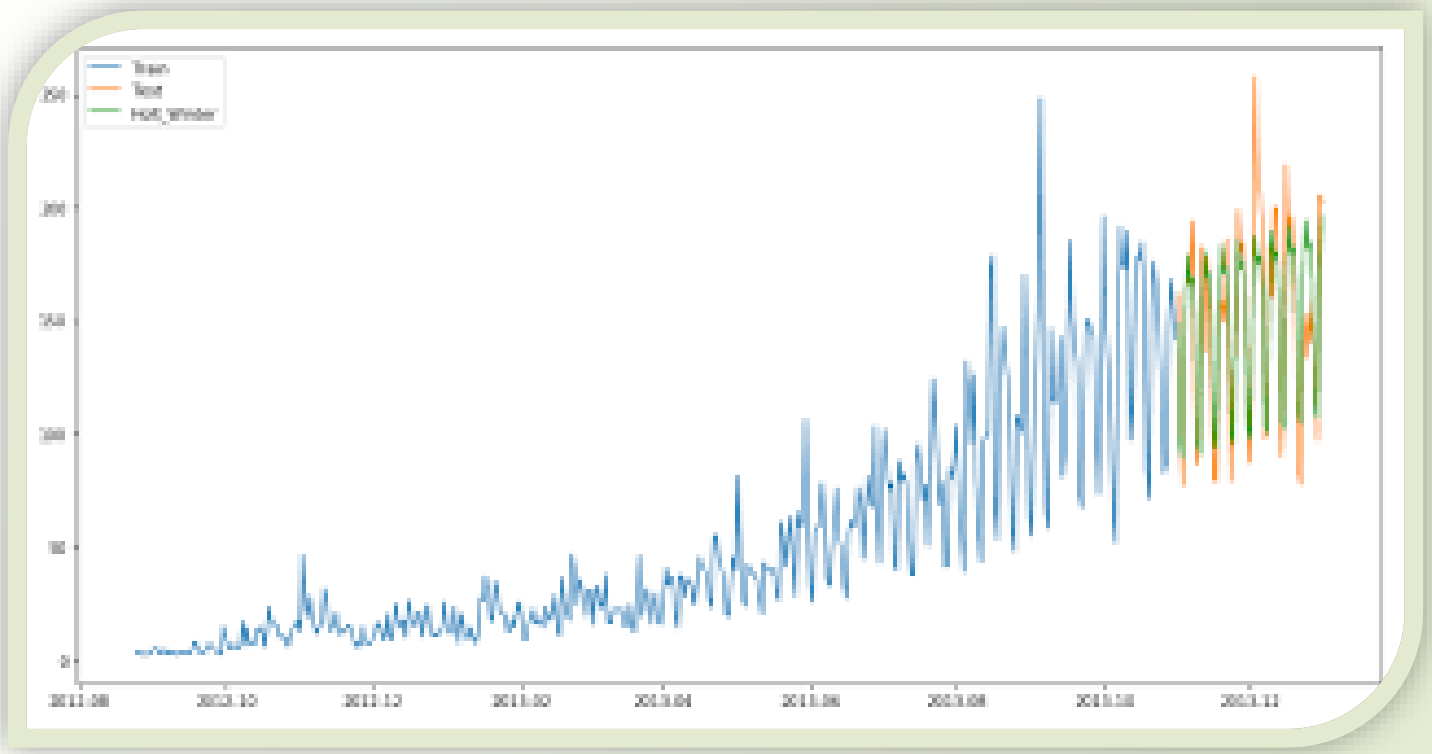
Stock Market Analysis and Prediction

What is Stock Market ?

Use AI and ML in Stock Market Analysis And Prediction



Long Short Term Memory networks



Times Series Prediction

Dataset!

Dataset Description

- Dataset was taken from https://finance.yahoo.com/
- It is the historical stock data of Apple from the National stock exchange.

Features

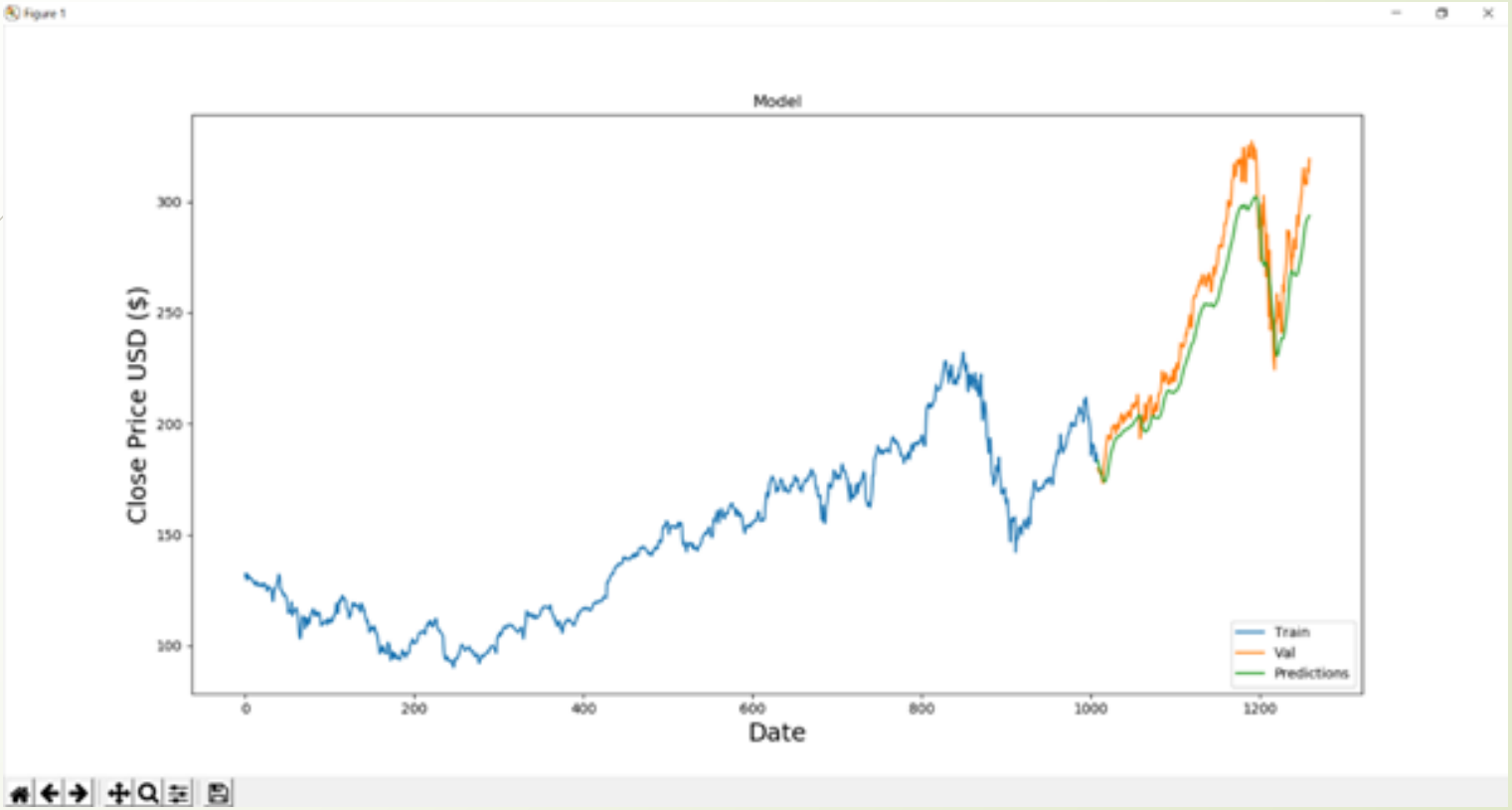
- Open Index Value
- High Value
- Low Value
- Close Index Value
- Adjusted Close Value
- Volumes

Label

- Date

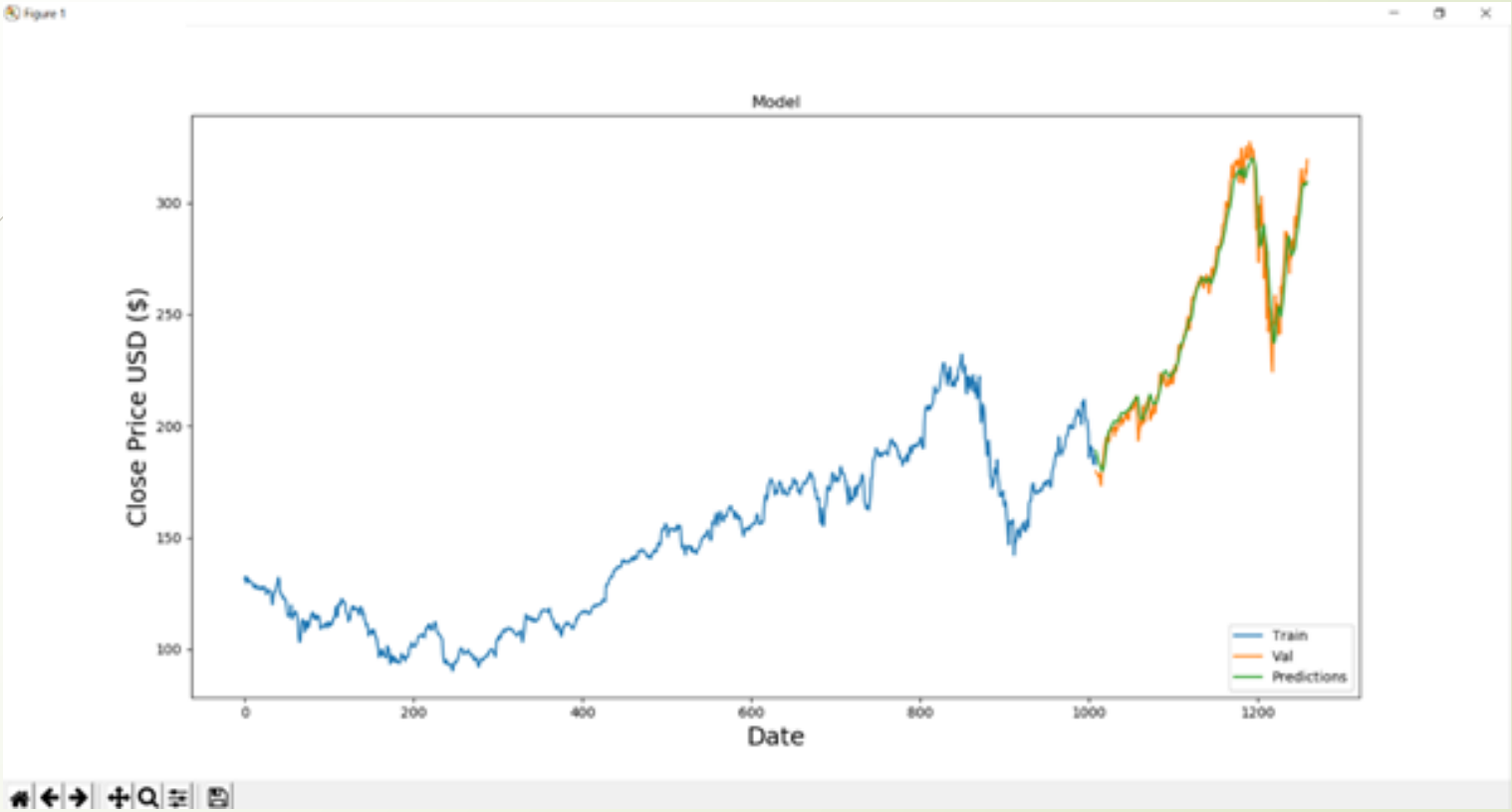
	A	B	C	D	E	F	G
1	Date	Open	High	Low	Close	Adj Close	Volume
2	21-05-2015	130.07	131.63	129.83	131.39	121.0902	39730400
3	22-05-2015	131.6	132.97	131.4	132.54	122.15	45596000
4	26-05-2015	132.6	132.91	129.12	129.62	119.4589	70697600
5	27-05-2015	130.34	132.26	130.05	132.04	121.6892	45833200
6	28-05-2015	131.86	131.95	131.1	131.78	121.4496	30733300
7	29-05-2015	131.23	131.45	129.9	130.28	120.0672	50884500
8	01-06-2015	130.28	131.39	130.05	130.54	120.3068	32112800
9	02-06-2015	129.86	130.66	129.32	129.96	119.7723	33667600
10	03-06-2015	130.66	130.94	129.9	130.12	119.9197	30983500
11	04-06-2015	129.58	130.58	128.91	129.36	119.2193	38450100
12	05-06-2015	129.5	129.69	128.36	128.65	118.565	35626800
13	08-06-2015	128.9	129.21	126.83	127.8	117.7816	52674800
14	09-06-2015	126.7	128.08	125.62	127.42	117.4314	56075400
15	10-06-2015	127.92	129.34	127.85	128.88	118.7769	39087300
16	11-06-2015	129.18	130.18	128.48	128.59	118.5097	35390900
17	12-06-2015	128.19	128.33	127.11	127.17	117.201	36886200
18	15-06-2015	126.1	127.24	125.71	126.92	116.9706	43988900
19	16-06-2015	127.03	127.85	126.37	127.6	117.5973	31494100
20	17-06-2015	127.72	127.88	126.74	127.3	117.3208	32918100

Test Case And Ouptut



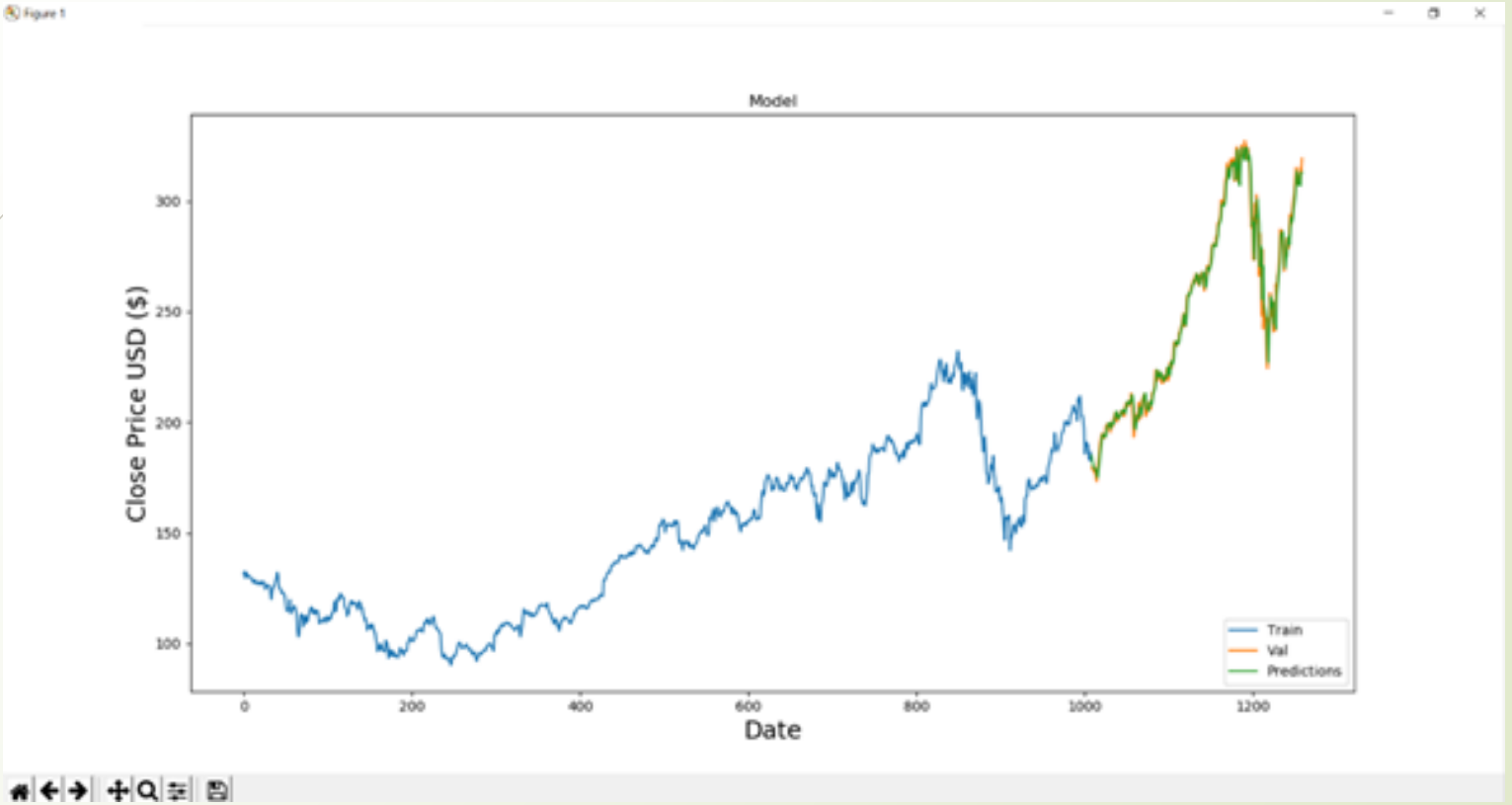
Test Case 1:

Prediction after 1 epoch, mean square error = 12.698792608476134



Test Case 2:

Prediction after 2 epochs, mean square error = 9.05711732389662



Test Case 3:

Prediction after 5 epochs, mean square error = 6.269858967175252