



PROJECT
BITCOIN

FORECASTING THE FUTURE OF FINANCE

PRESENTATION RUBRICS

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Our topics today are
divided into six parts.
Each part describes by each team member

01

Why Bitcoin?

MD Nazmul Hasan
(Data set choice)

04

Time Plot

Ramya
(R Developer)

02

About Bitcoin

Athiqur Rahman
(Presentation Design)

05

Forecasting

Husna

03

The Dataset

Fatima

06

Graphical
Comparison

Rasajna

ABOUT BITCOIN!

Bitcoin serves as a decentralized medium of digital exchange

Bitcoin is

- is permissionless
- is decentralized
- is open source
- provides anonymity
- is freedom of choice
- is transparent



Smart

Bitcoin has a maximum supply of 21 million coins, and as of March 2023, more than 19 million have been mined.

Transaction

Bitcoin is suitable as a medium of exchange. Cross-border transactions take just 10 minutes and rarely cost more than a few dollars.

Security

The Blockchain network is designed in such a manner that transactions are generally irreversible, and the data security of Bitcoin is strong.

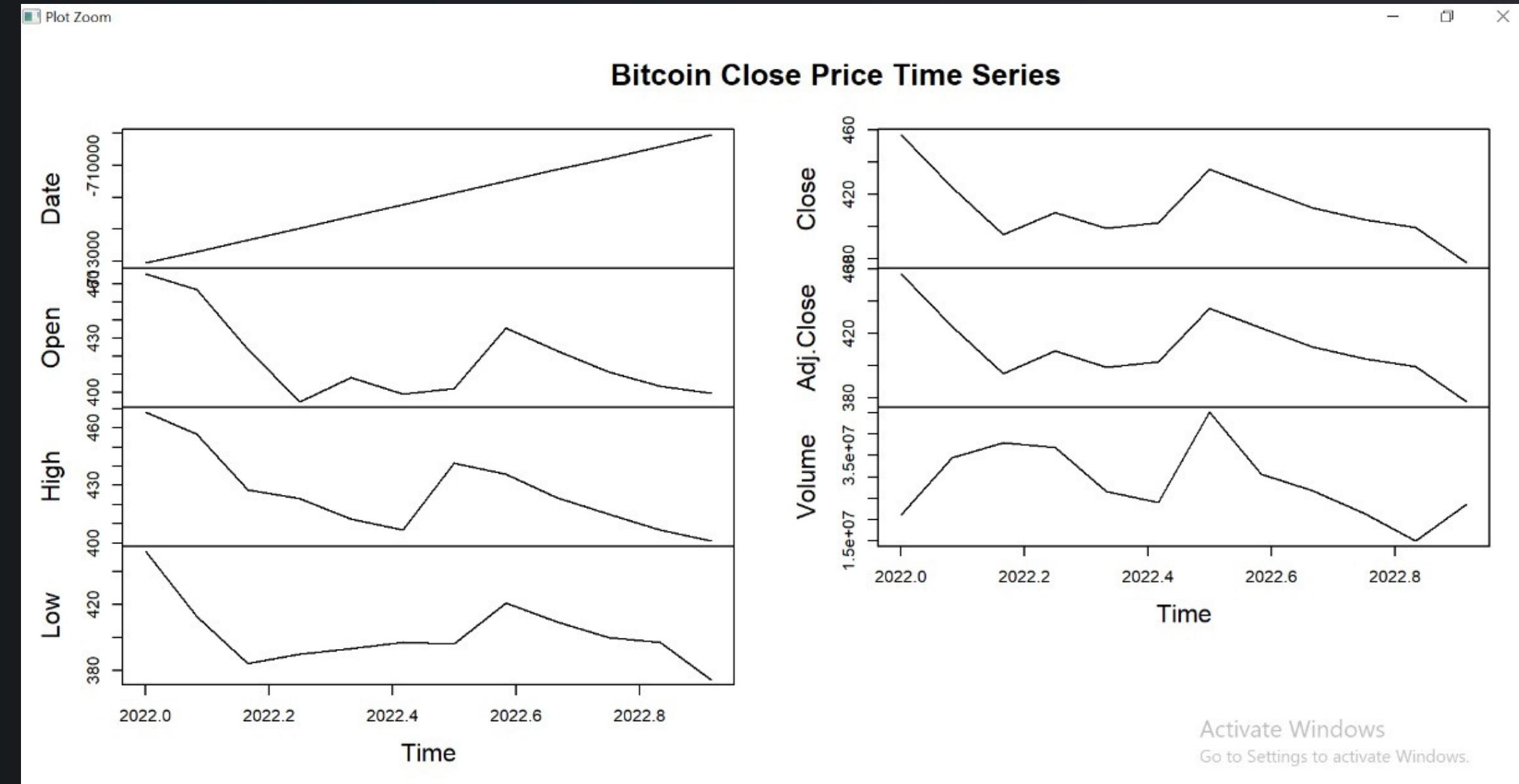


DATA: Time Series

A time series can be constructed by any data that is measured over time at evenly spaced intervals. For eg: Historical stock prices, earnings, (GDP).

Data Time Series

Pre-production stage plays an important role in concept and project direction





ABOUT THE DATA

INTRA DAY:

Buying and selling stocks/cryptocurrency on the same day.

FACTORS:

- DATE
- PRICE
- OPENING PRICE
- DAY HIGHEST PRICE
- DAY LOWEST PRICE
- TRADING VOLUME

Date	Price	Open	High	Low	Vol.
11/1/2023	37,041.70	34,648.30	37,942.00	34,124.20	609.46K
10/1/2023	34,650.60	26,962.50	35,191.40	26,558.40	1.61M
9/1/2023	26,962.70	25,938.30	27,480.70	24,923.10	1.15M
8/1/2023	25,937.30	29,232.30	30,168.60	25,481.90	1.34M
7/1/2023	29,232.40	30,472.90	31,764.50	28,890.70	1.23M
6/1/2023	30,472.90	27,216.40	31,395.40	24,838.00	1.77M
5/1/2023	27,216.10	29,252.10	29,816.40	25,853.10	1.66M
4/1/2023	29,252.10	28,473.70	30,964.90	27,054.30	2.03M
3/1/2023	28,473.70	23,130.60	29,160.40	19,591.80	10.26M
2/1/2023	23,130.50	23,124.70	25,236.80	21,418.70	9.09M
1/1/2023	23,125.10	16,537.50	23,952.90	16,499.70	8.98M
12/1/2022	16,537.40	17,163.40	18,351.80	16,331.20	6.61M
11/1/2022	17,163.90	20,496.10	21,464.70	15,504.20	10.30M
10/1/2022	20,496.30	19,422.90	21,038.10	18,207.90	8.29M
9/1/2022	19,423.00	20,049.90	22,702.50	18,191.80	10.91M
8/1/2022	20,043.90	23,303.40	25,205.70	19,542.90	6.55M
7/1/2022	23,303.40	19,926.60	24,605.30	18,794.40	5.79M
6/1/2022	19,926.60	31,793.10	31,969.90	17,630.50	3.79M
5/1/2022	31,793.40	37,642.00	40,021.00	26,500.50	4.67B

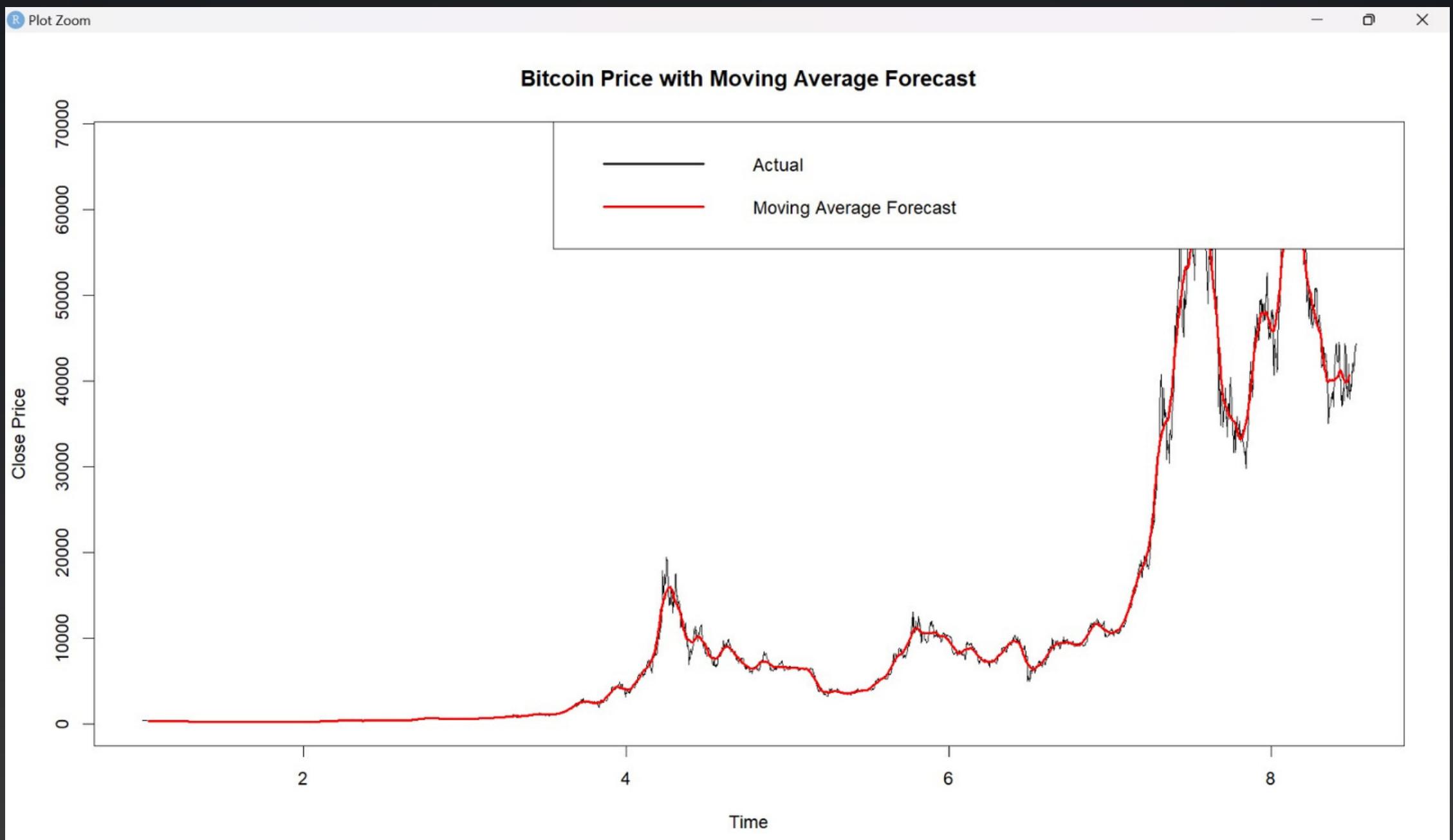
TIME
PLOT



MOVING AVERAGE

RMSE Value = 1247.365

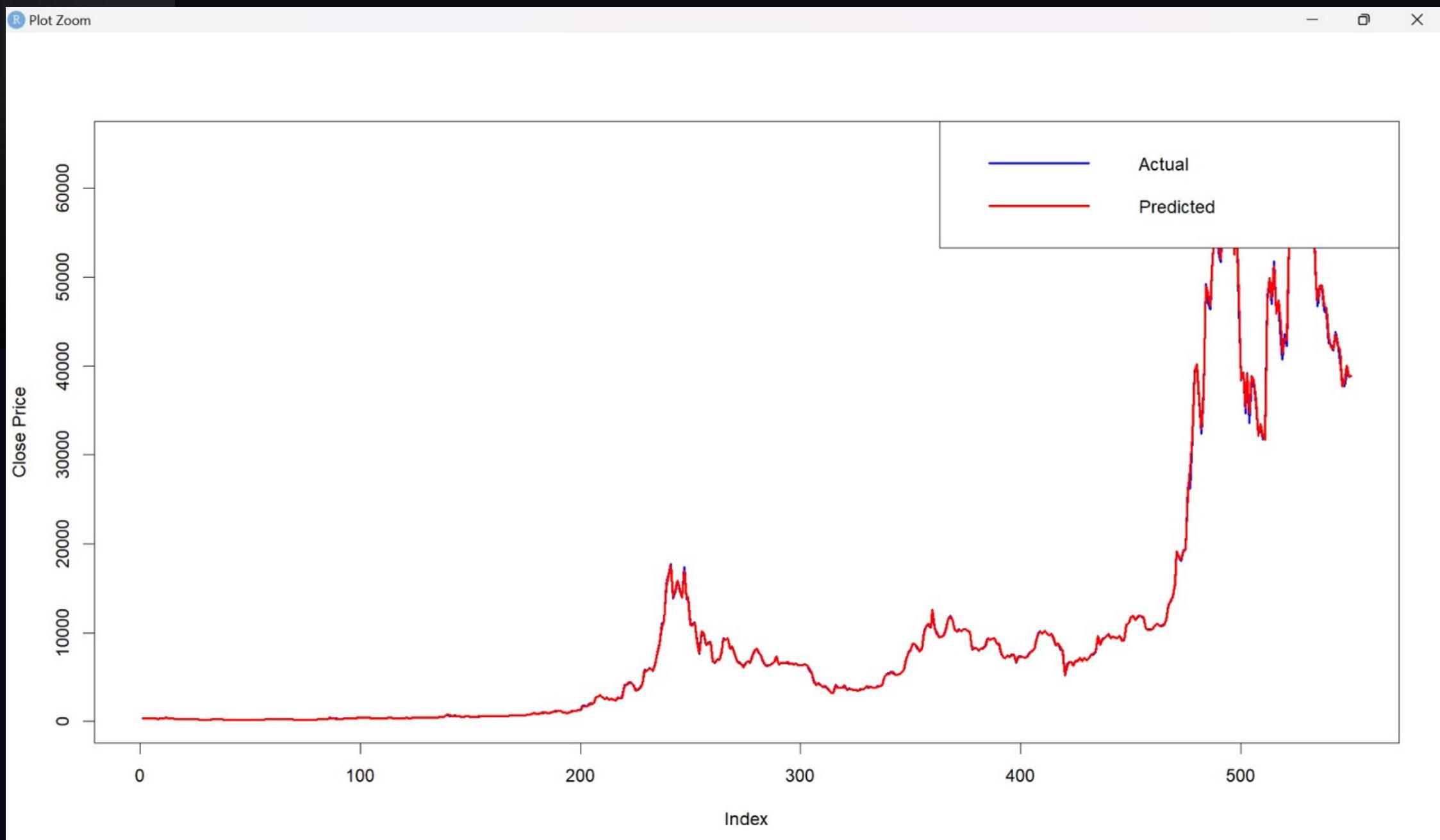
Moving averages are usually calculated to identify the direction of a trend.



RANDOM FOREST

RMSE Value:
294.844

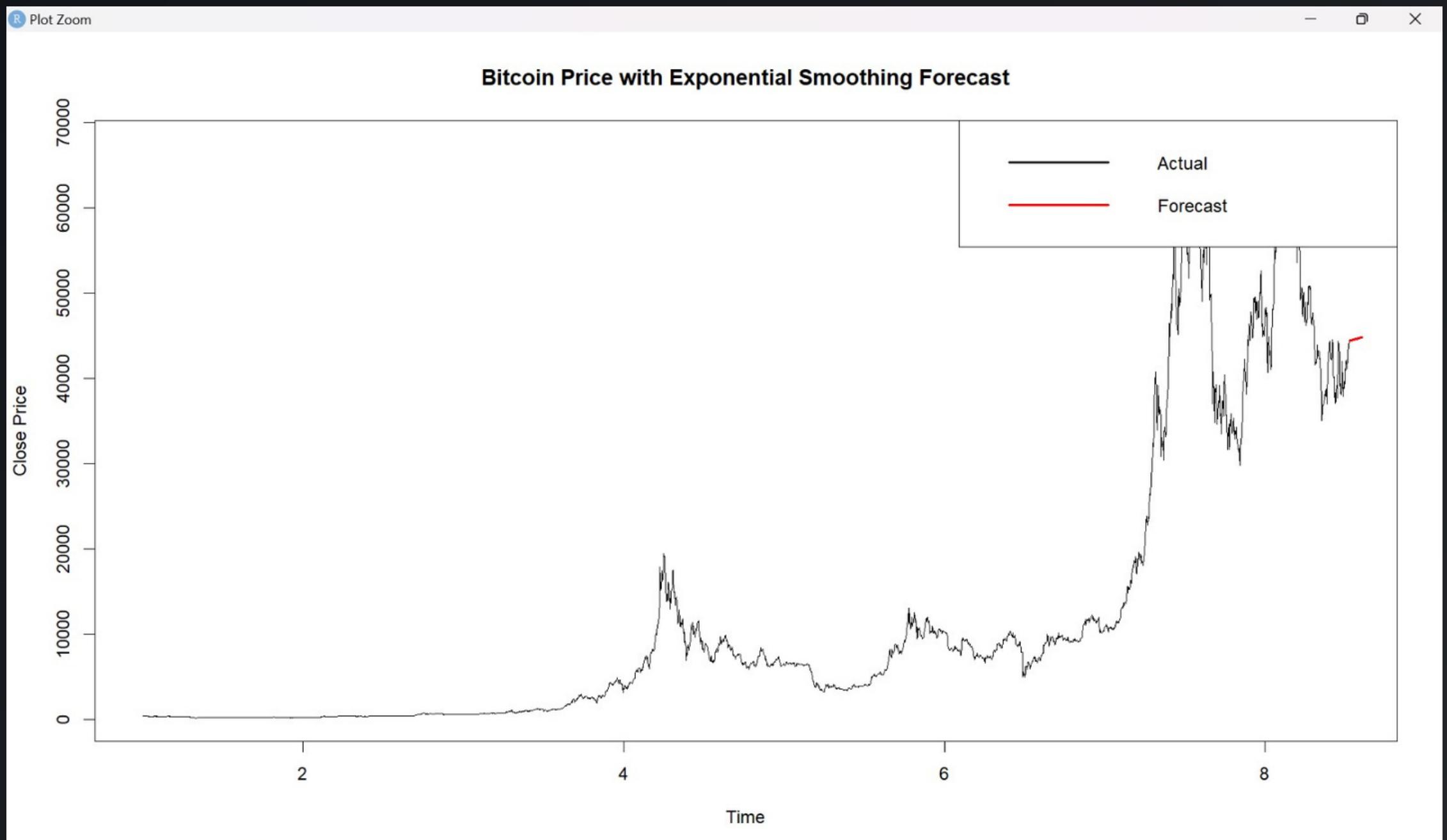
The random forest classifier is a collection of prediction trees. Every tree is dependent on random vectors sampled independently, with similar distribution with every other tree in the random forest.



EXPONENTIAL SMOOTHING

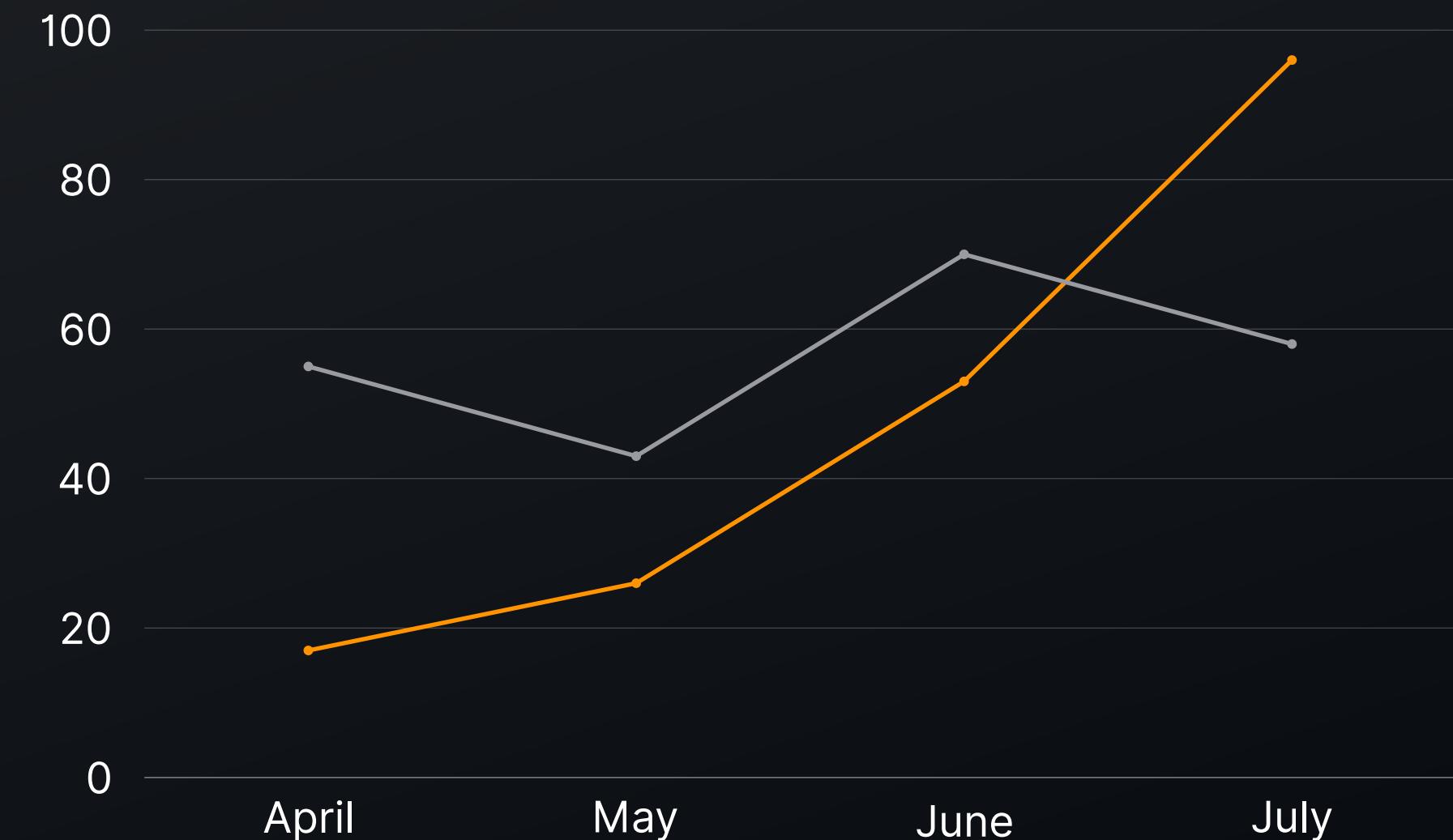
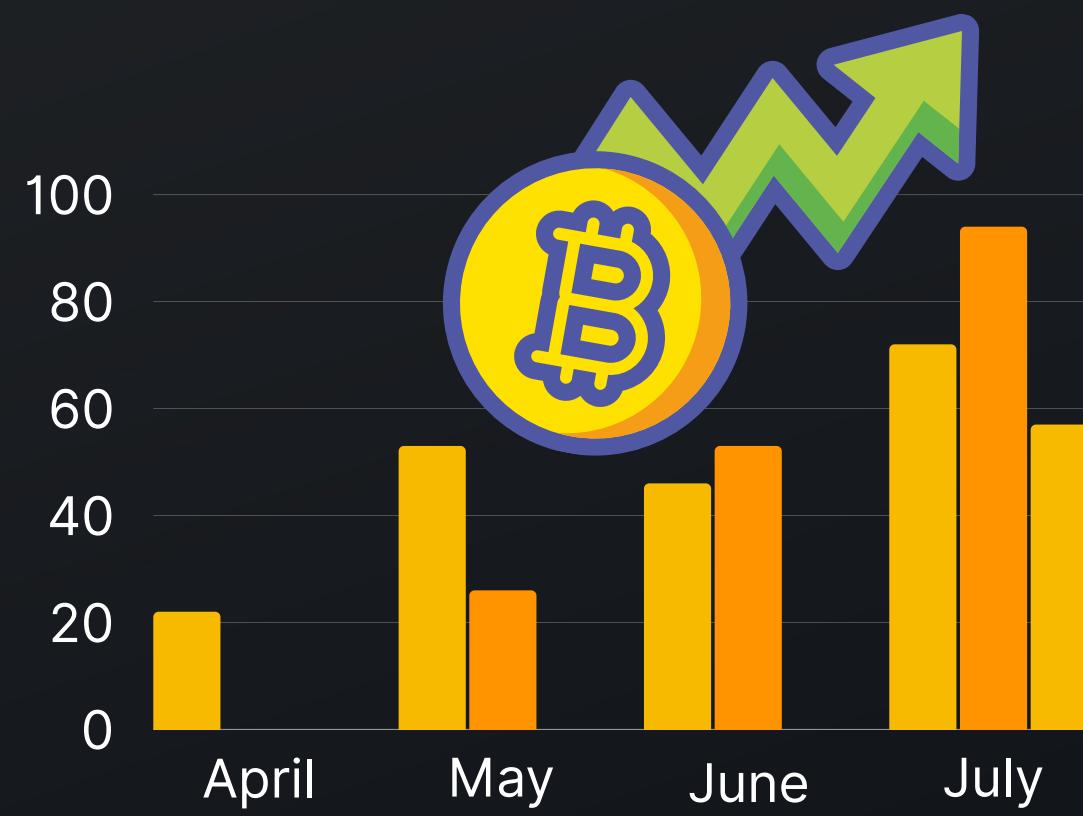
RMSE = 789.6623

Exponential smoothing is one of the oldest and most studied time series forecasting methods. It is most effective when the values of the time series follow a gradual trend and display seasonal behavior in which the values follow a repeated cyclical pattern over a given number of time steps.



PREDICTION OF THE BETTER FORECASTING MODEL?

Moving Average vs Random Forest vs Exponential Smoothening





THANK YOU

FOR TUNING IN
GROUP NUMBER 3
BITCOIN