FINAL PROJECT(INDIVIDUAL)

A screenshot of a computer screen

Description automatically generated

A graph showing a line graph

Description automatically generated

A graph with a number of blue and black bars

Description automatically generated

A graph showing a chart with a number of candlesticks

Description automatically generated with medium confidence

Predicting stock prices

A close-up of a computer screen

Description automatically generated

A screenshot of a computer code

Description automatically generated

The linear regression analysis using the Netflix dataset demonstrates that there's an almost one-to-one correspondence between the current day's closing price and the subsequent day's closing price, as indicated by the coefficient of 0.9999669, which is extremely close to 1. This suggests that if today's closing price goes up by one unit, tomorrow's closing price is predicted to also increase by nearly the same amount. The significance of this relationship is underscored by the near-zero p-value, highlighting a robust and statistically significant predictive connection.

The model's R-squared value, which is very close to 1, reveals that the model can account for almost all the variability in the next day's closing price. Such a high R-squared value is quite rare in financial data, implying that the day-to-day price fluctuations are minimal. Essentially, this model indicates a strong linear correlation between the closing prices on consecutive days for Netflix's stock, suggesting that the price one day is a very strong predictor of the price the next day.

Relationship between the previous day's trading volume and the next day's stock price volatility

A screenshot of a computer program

Description automatically generated

A screenshot of a computer code

Description automatically generated

The results from the linear regression analysis indicate a negative correlation between the prior day's trading volume and the subsequent day's stock price volatility for Netflix. Specifically, the model demonstrates that a one-unit rise in trading volume leads to a marginal reduction in the next day's volatility by approximately 0.000000075018 units. This negative coefficient signifies an inverse relationship, suggesting that days characterized by elevated trading volumes are likely to be followed by days with marginally reduced volatility, hinting at a potential increase in market stability after days of high trading activity.