Explanation of the code:

Here I have used the Apple Stock data for the last 5 years to predict the stock trend.

Used the Long Short-Term Memory Network (LSTM) for creating the model to forecast Google stock prices. Because Recurrent neural networks using LTSMs are used to learn long-term dependencies. It is frequently applied to time-series data processing and forecasting.

The initial stage of LSTM is to choose which data should be left out of the cell at that specific time step. A sigmoid function is employed to make the decision. It computes the function while considering the current input, the previous state, and both. The second layer has two tasks to do. The sigmoid and tanh functions are the first and second, respectively. The sigmoid function (0 or 1) determines which values are accepted. The tanh function assigns the values passed weight, determining their relevance on a scale of -1 to 1. The third phase entails choosing the final product. Run a sigmoid layer first, which chooses which components of the cell state are sent to the output. The cell state must then be multiplied by the sigmoid gate output after passing through the tanh function to push values between -1 and 1.

As you can see from the chart below, the model is quite accurate at predicting the trend of actual stock prices.

Training Dataset – taken from Feb 2018 – Feb 2022

Predicted the stock from Feb 2022 to Feb 2023