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### 1. ABSTRACT:

### The stock market is considered to be one of the most unpredictable markets. With Prices of stocks increasing or decreasing on an hourly basis, it’s very difficult to understand or determine a company’s growth potential given that the stock prices cannot be used as a standard parameter over time. With variables as inflation, company decisions and employees working in it, it’s almost next to impossible to determine an exact price at any given time. With the help of historical data over the months and years for one specific company “Tesla” we try to predict the stock prices over a given time with the help of machine learning algorithms and data science.

### 2. INTRODUCTION:

The components/ softwares / protocols are as follows:

* Jupyter notebook
* Python
* Python Libraries
* Data visualisation
* Data wrangling
* Data Mining

### 3. REQUIREMENT ANALYSIS:

The data was fetched from Kaggle. The data set is available along with the Jupyter notebook.

### 4. ARCHITECTURE & DESIGN:

The high level view of the architecture is as follows:

### 5. IMPLEMENTATION:

With the given dataset, we analyse the stock price through the months, using machine learning techniques, we were able to predict the accurate price of a stock to about 74%.

### 6. EXPERIMENT RESULTS & ANALYSIS:

#### 6.1. RESULTS:

We have successfully calculated the stock price of tesla over the course of the next 3-4 months.

#### 6.2. CONCLUSION AND FUTURE WORK:

Accuracy, Precision and validation is extremely important when it comes to understanding and implementing a machine learning model for a given use case. With the graphs shown in the notebook.ipynb file we can further understand as to how the stock price has been fluctuating through the years.

**Future Scope:**

* Use Deep learning techniques to understand the multi0varied equation better and make even more accurate predictions.