**TEAM NO: 2**

**TEAM DETAILS :**

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**PROJECT TITLE:**

**STOCK MARKET PRICE PREDICTION USING**

**MACHINE LEARNING**

**PROJECT OVER VIEW:**

The goal of this project is to develop a machine learning model that can predict the futureprices of stocks based on historical data. The project aims to provide a reliable and accurate prediction model that can help

**PROJECT OBJECTIVES:**

**Primary Objectives:**

1. Develop a predictive model: Design and develop a machine learning model that can accurately predict future stock prices based on historical data.

2. Improve prediction accuracy: Achieve a high degree of accuracy in predicting stock prices, with a target accuracy rate of [X]%.

3. Reduce prediction error: Minimize the error rate of the predictions, with a target error rate of [X]%.

**Secondary Objectives:**

1. Analyze market trends: Identify and analyze market trends and patterns that can inform the predictive model.

2. Evaluate model performance: Develop and implement a comprehensive evaluation framework to assess the performance of the predictive model.

**Dataset:**

The dataset used for this project is the historical stock prices of a specific company (e.g. Apple Inc.) from a reliable source such as Yahoo Finance. The dataset includes the following features:

**- Date**

**- Open price**

**- High price**

**- Low price**

**- Close price**

**- Volume**

**Methodology:**

The project uses a combination of data preprocessing, feature engineering, and machine learning algorithms to predict future stock prices. The methodology includes:

1. Data preprocessing: Handling missing values, removing outliers, and normalizing the data.

2. Feature engineering: Extracting relevant features from the data, such as moving averages, relative strength index (RSI), and Bollinger Bands.

3. Model selection: Selecting a suitable machine learning algorithm, such as linear regression, decision trees, or LSTM networks.

4. Model training: Training the selected model on the preprocessed data.

5. Model evaluation: Evaluating the performance of the trained model using metrics such as mean squared error (MSE) and mean absolute error (MAE).

**TECHNOLOGIES USED:**

Python

Html ,css

Flask

**ALGORITHM USED:**

**Linear regression**

**ADVANTAGES: advantages of stock market price prediction:**

**Investment Benefits:**

**1. Improved investment decisions** :accurate the stock market price prediction can help investors make informed decisions, reducing the risk of losses**.**

**2. Increased returns:** By predicting price movements, investors can buy or sell stocks at the right time, potentially leading to higher returns.

**3. Risk management**: Stock market price predictions can help investors manage risk by identifying potential losses and taking proactive measures.

**Trading Benefits:**

**1. Timely buying and selling**: Accurate predictions can help traders buy or sell stocks at the right time, maximizing profits.

**2. Reduced trading costs**: By predicting price movements, traders can reduce trading costs, such as brokerage fees and slippage.

**USES :**

**Financial Uses:**

**1. Investment decisions:** Stock market price predictions can help investors make informed decisions about buying or selling stocks.

**2. Portfolio management**: Predictions can help investors optimize their portfolios by identifying potential winners and losers.

**3. Risk management:** Stock market price predictions can help investors manage risk by identifying potential losses and taking proactive measures.

**Business Uses:**

**1. Financial planning**: Stock market price predictions can help businesses make informed financial decisions, such as investments, funding, and resource allocation.

**2. Strategic decision-making**: Predictions can help businesses make strategic decisions, such as mergers and acquisitions, or expanding into new markets.

**CONCLUSION:**

Predicting stock prices helps people make good investment decisions.

**Good Things:**

- More money

- Less risk

- Better choices

Next Steps:

- Make predictions better

- Use new information

- Create new tools