**Use Cases**

**Use Case 1: Get Stock Price Prediction**

Goal: As a user, I want to obtain a prediction for the price of a specific stock, so I can make informed investment decisions.

**Interactions:**

* User inputs the stock symbol or name of the company.
* System retrieves historical stock price data for the specified stock.
* System analyzes the historical data using machine learning algorithms to predict future stock prices.
* System provides the predicted future stock price to the user.

**Use Case Diagram:**

A diagram of a diagram

Description automatically generated

**Use Case 2: View Historical Stock Prices**

Goal: As a user, I want to view historical prices of a specific stock, so I can analyze its past performance.

**Interactions:**

* User inputs the stock symbol or name of the company.
* System retrieves historical stock price data for the specified stock.
* System displays the historical prices to the user.

**Use Case Diagram:**

A diagram of a diagram

Description automatically generated

**Use Case 3: Set Notification for Price Threshold**

Goal: As a user, I want to set up notifications for a specific stock when it reaches a certain price threshold, so I can take timely actions.

**Interactions:**

* User inputs the stock symbol or name of the company.
* User specifies the desired price threshold (e.g., upper or lower limit).
* System monitors the stock price in real-time.
* When the stock price reaches the specified threshold, system sends a notification to the user.

**Use Case Diagram:**

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Description automatically generated

**Use Case 4: Compare Multiple Stocks**

Goal: As a user, I want to compare the historical performance of multiple stocks, so I can make informed decisions about diversifying my investment portfolio.

**Interactions:**

* User inputs the symbols or names of multiple stocks.
* System retrieves historical stock price data for the specified stocks.
* System displays the historical prices of the selected stocks for comparison to the user.

**Use Case Diagram:**

A diagram of a diagram

Description automatically generated

**Use Case 5: Analyze Market Trends**

Goal: As a user, I want to analyze overall market trends, so I can adjust my investment strategy accordingly.

**Interactions:**

* User selects the option to analyze market trends.
* System retrieves relevant market data from various sources.
* System presents the analyzed market trends to the user.
* System processes the data to identify trends such as bullish or bearish patterns.

**Use Case Diagram:**

A diagram of a diagram

Description automatically generated

**Use Case 6: Access Real-time Stock Data**

Goal: As a user, I want to access real-time data for a specific stock, so I can make immediate decisions based on the current market conditions.

**Interactions:**

* User inputs the stock symbol or name of the company.
* System retrieves real-time stock price data for the specified stock.
* System presents the real-time stock data to the user.

**Use Case Diagram:**

A diagram of a system

Description automatically generated

**Adding New Use cases for the existing ones:**

**Use Case 7: Save Stock Watchlist**

Goal: As a user, I want to save a list of stocks I'm interested in, so I can easily access their information in the future.

**Interactions:**

* User inputs the stock symbols or names of the companies they want to add to their watchlist.
* System saves the list of stocks to the user's profile or account.
* User can view their saved watchlist at any time for quick reference.

**Use Case Diagram:**

A diagram of a diagram

Description automatically generated

**Use Case 8: Export Stock Data**

Goal: As a user, I want to export historical stock data for analysis in external tools, so I can perform custom analysis or integrate with other systems.

**Interactions:**

* User specifies the time period and stocks for which they want to export historical data.
* System retrieves the requested historical stock data.
* User selects the format (e.g., CSV, Excel) for exporting the data.
* System generates and provides a downloadable file containing the exported stock data.

**Use Case Diagram:**

A diagram of an exclamation point

Description automatically generated