Stock Price Prediction

Phase 1: Problem Definition and Design Thinking

Problem Definition:
The problem is to build a predictive model that forecasts the price of the stocks.It will help the investers to invest in the best stocks to get the great returns and make them to make well-informed decisions and planning their investment strategies.The steps invovlved in this project are data collection,data preprocessing,Feature engineering,Model Selection,model training and model evaluation.

Design Thinking:

Data Collection: To collect the historical stock market data including date,open price,close price,volume and other relevent indicators.

Data Preprocessing: To clean and preprocess the data,handle misiing values,convert categorical data into numerical for flexible operations.

Feature Engineering: To create additional features that could enhance the predictive power of the model such as technical indicators,moving averages and lagged variables.

Model Selection: To choose suitable algorithms (like ARIMA,LSTM) for suitable time sereies forecasting to predict stock prices.

Model Training: To train the selected model using preprocessed data.

Model Evaluation: To evaluate the models performance using appropriate time sereis forecasting metrics(eg.,Mean absolute eroor,Root mean squared error etc.,)