**Development Process**

Under the guidance of Dr. Mark Chai, the project was initiated to develop a forecasting system for stock prices using historical data from Yahoo Finance. The project was structured following Dr. Chai's recommended methodology to ensure a systematic and effective approach to achieving the desired outcomes.

**Data Collection and Preprocessing:**

The project started by collecting historical stock price data from Yahoo Finance. The collected data underwent preprocessing, including handling missing values and ensuring it was ready for analysis.

**Model Development and Training:**

Following Dr. Chai's recommended methodology, The model was trained using machine learning algorithms like linear regression and decision trees to predict future stock prices based on the historical data.

**Evaluation and User Interface:**

After training the model, its accuracy was evaluated. A user-friendly interface was developed to allow users to input parameters, access forecasts, and view visualizations of stock price trends. This interface aimed to enhance user understanding and engagement with the forecasting system.

**Interpretability and Continuous Monitoring:**

In line with Dr. Chai's approach, the system provided explanations for the model's predictions to help users understand the underlying patterns and factors influencing the forecasts. Additionally, the system was designed for continuous monitoring and updates with new data to improve its forecasting accuracy over time.

**Conclusion**: This plan detailed the complex functionalities and features of the forecasting system, ensuring it aligned perfectly with the project's objectives and requirements. The architectural design was crafted to serve as a roadmap, guiding the team through the implementation process to develop a customized, high-performing forecasting solution under Dr. Mark Chai's guidance.