Model Development Phase Template

Date	03 October 2024
Team ID	LTVIP2024TMID24963
Project Title	Time Series Analysis For Bitcoin Price Prediction Using Prophet
Maximum Marks	6 Marks

Model Selection Report

In the forthcoming Model Selection Report, various models will be outlined, detailing their descriptions, hyperparameters, and performance metrics, . Thiscomprehensive report will provide insights into the chosen models and their effectiveness.

Model	Description	Hyperparameters	Performance Metric (MAE), (MAPE), \ (RMSE)
prophet	Prophet is a time series forecasting model developed by Facebook. It's designed to handle daily observations, account for seasonality, and support missing data. It's particularly well-suited for seasonal trends like those often seen in financial data.	**Key Hyperparameters**: changepoint_prior_scale, seasonality_mode (additive or multiplicative), seasonality_prior_scale, holidays	**Metrics**: Mean Squared Error (MSE): 14187191.901268193 Mean Absolute Error (MAE): 2605.9734316735935 R-squared (R2): 0.9455552766056716 Root Mean Squared Error (RMSE): 3766.588894645684