Maverick needs an accurate daily forecast of sales KPIs for a new store's first year of sales. Achieving this allows for more effective financial planning and accurate ROI documents. This project will be a success if it is able to yield a better forecast than the current model. Stakeholders will measure success with error rate (MAPE), model fit (AIC &, R²), and overall accuracy.

This is a supervised regression problem where the predictors involve both categorical and numerical variables, and the target are four sales metrics. In order to solve this problem, we will conduct exploratory data analysis, train forecasting models like XGBoost machine learning and ARIMA time-series, evaluate models on success metrics and provide predictions using the chosen model.

The deliverable will be a predictive model that produces daily sales forecasts for each sales metric. This model will consider store features, seasonality, as well as having capability to process new data and re-forecast.

This project will be executed by Biva Sherchan, Roman Brock, Bhoomika John Pedely and Pablo Zarate. We will submit our exploratory data analysis on October 8, 2023, and a notebook of the forecasting model on November 5, 2023. We will deliver a presentation of our findings to Maverick on November 30, 2023.