Maverik, a rapidly expanding retail convenience store chain, recently acquired gas station company "Kum & Go," doubling its store count and reaching over 400 locations in the western United States. As part of its ambitious growth strategy, Maverik intends to open around 30 new stores annually, making these new store openings a crucial aspect of their business planning. Considerable uncertainty is associated with deploying new locations in their network and being able to properly allocate resources and accurately predict profitability is crucial to the prosperity of their business. To this end, this project aims to augment veracity of financial plans and ROI documents by leveraging the store-level time series and qualitative data collected by Maverik. This will be done by employing an ensemble of forecasting and supervised regression models designed to provide daily store level sales forecasts of multiple key product categories. The key product categories include total inside sales, food service sales, diesel, and unleaded fuel sales.

Precise forecasts will enable Maverik to make informed decisions on store locations and resource allocation along with achieving set sales targets while monitoring progress. The materials delivered will be a model developed in R which produces a daily level, seasonally sensitive forecast for each of the sales metrics defined by Maverik. This model will have the functionality to create updated forecasts given new data. The success of this project will be measured by the accuracy of daily sales forecasts for new stores, especially within the first year, improved precision in initial ROI assessments, and the model's ability to outperform Maverik's existing naive forecasting model. This project will be executed by the University of Utah MSBA "Data Dive-rse" team and is expected to conclude in December 2023, with milestones including in-depth exploratory data analysis, model construction, and comprehensive model evaluation.