



Forecasting New Store Sales



ADVENTURE'S FIRST STOP

The Team

Top Gun: Maverik

- Dominique Miranda
- Jenisha Rawal
- Dayton Murset
- Andrew Moore

Business Problem

With a business plan of opening new stores every year, the **projected performance** of new stores is crucial to successful selection, opening, and continual **operations** of these new stores, while maintaining consistent **growth** at existing locations. Our team has been tasked with creating a **forecasting** model based on available data that will outperform the current naive model that has been running for several weeks.

Results

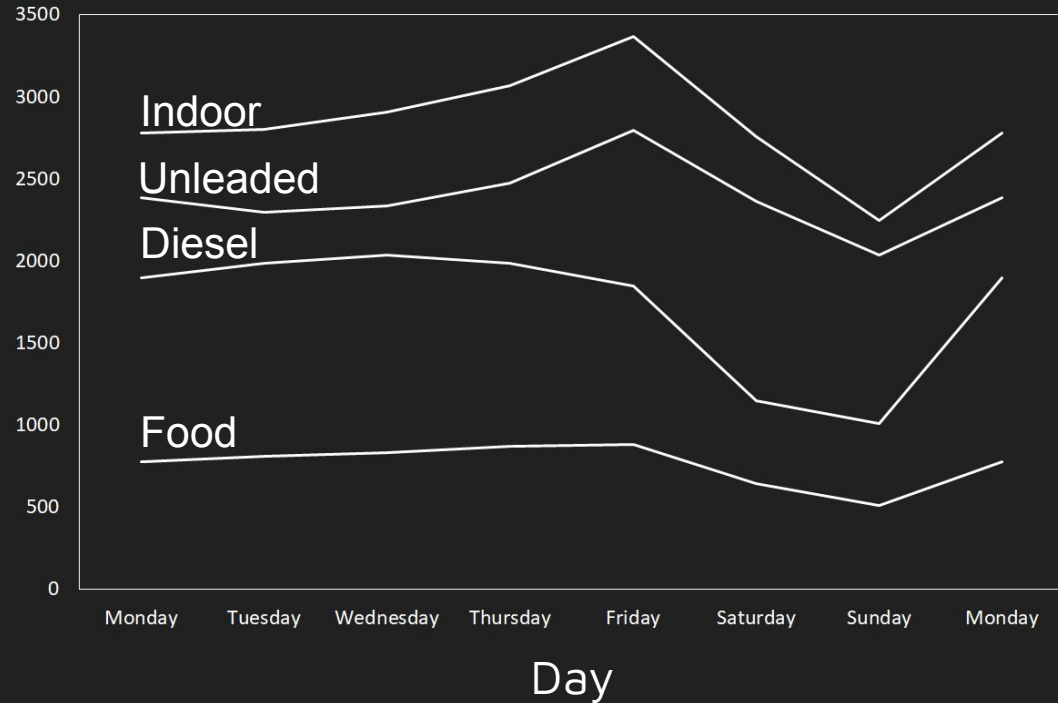
Our team has been tasked with creating a forecasting model based on available data. These results include :

- Projection of daily revenue at the store level for the following year
- Forecast of the daily sales of specific items such as gasoline, diesel, in-store merchandise, in-store food
- Actual sales of each store on a given day compared to what the model predicted.

Weekly Trends

Weekly Sales Trends:

Amount of Sales (\$ or gallons) vs Day of Week

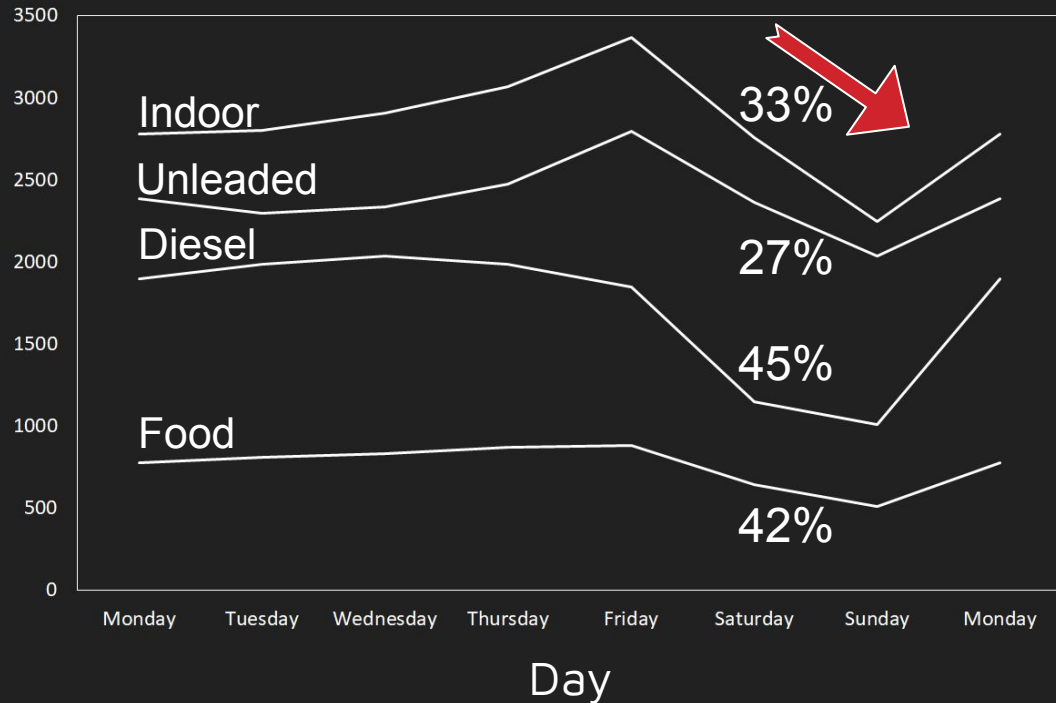


Weekly Trends

Weekly Sales Trends:

- All items struggle on weekends after a strong Friday, diesel worst of all

Amount of Sales (\$ or gallons) vs Day of Week

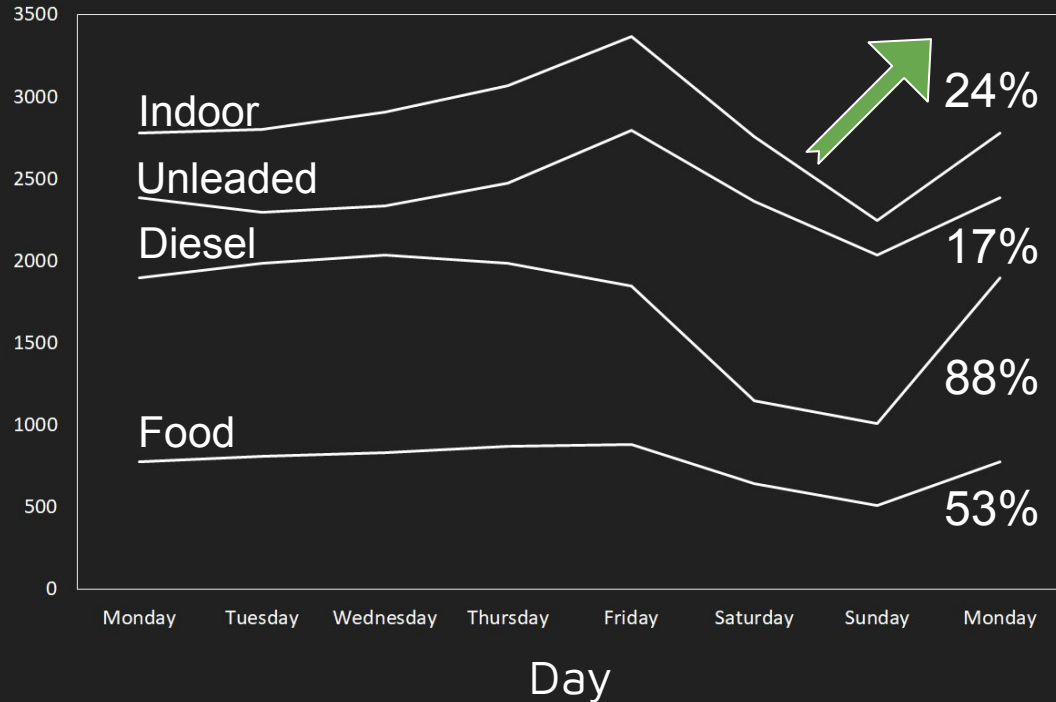


Weekly Trends

Weekly Sales Trends:

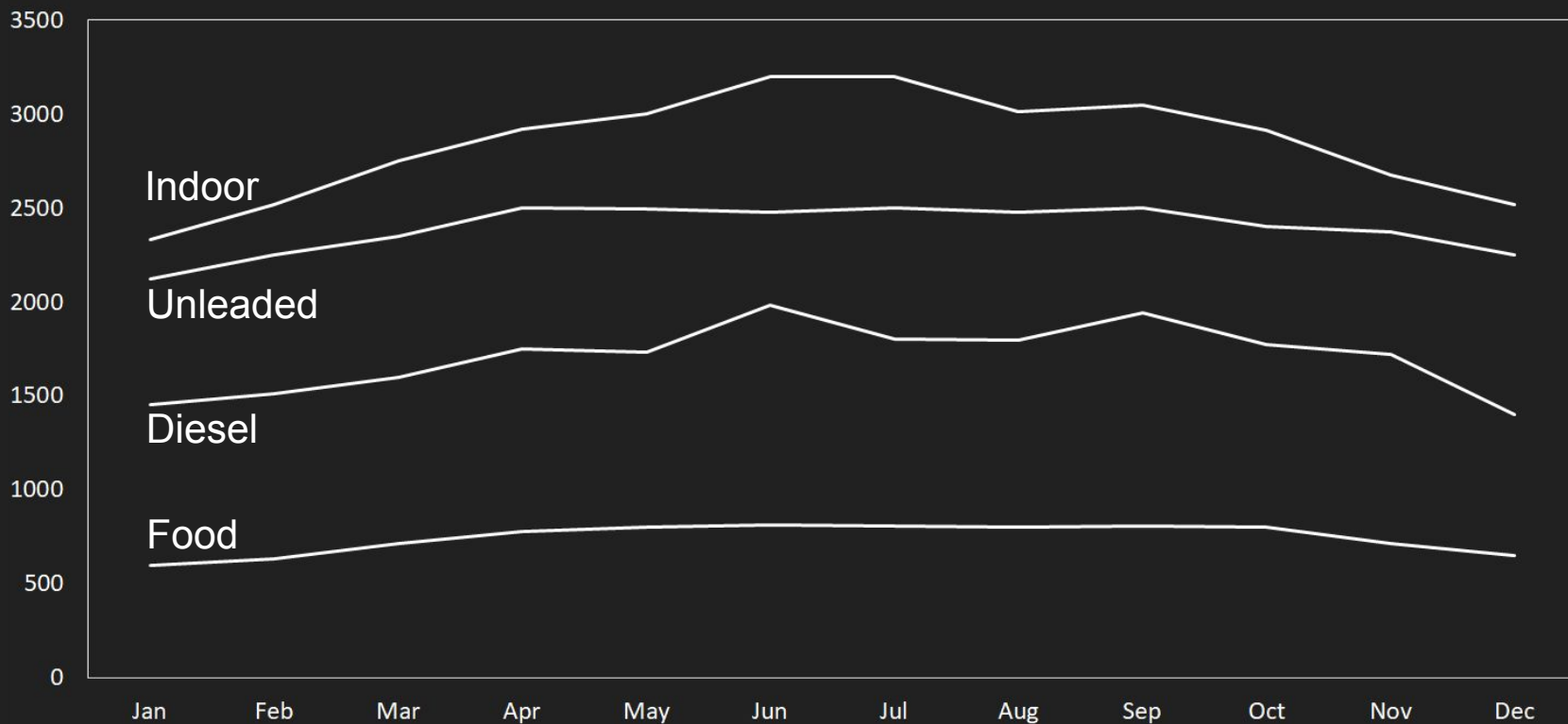
- All items struggle on weekends after a strong Friday, diesel worst of all
- All items rebound on Monday

Amount of Sales (\$ or gallons) vs Day of Week



Seasonal Trends

Amount of Sales (\$ or gallons) vs Month of Year



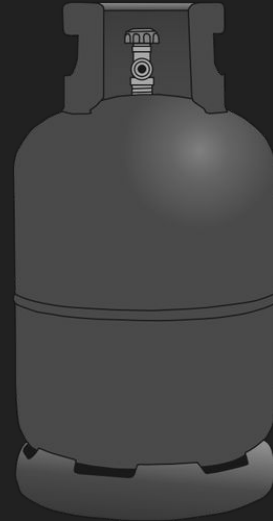
MAVERIK



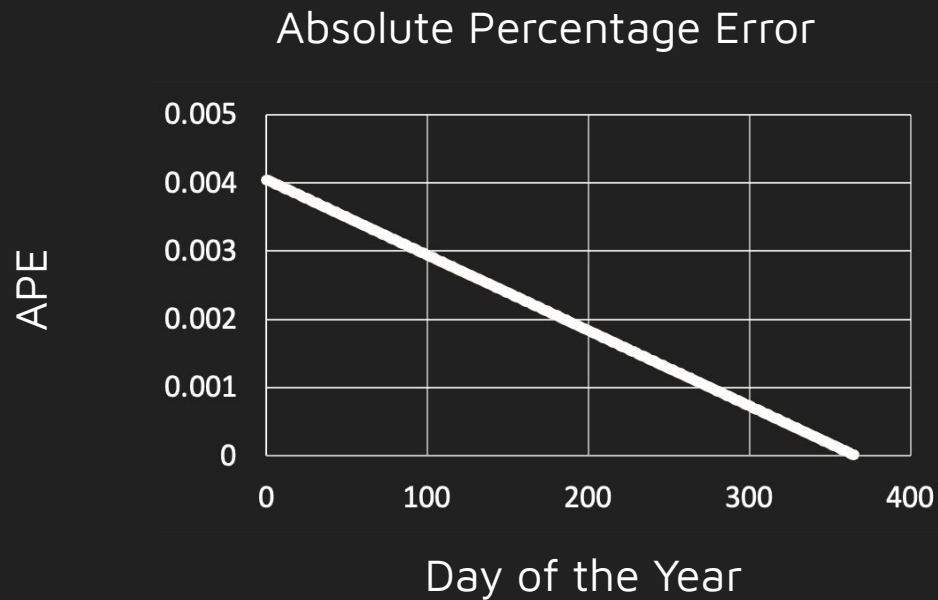
DANGER
HAZARDOUS WATER
DO NOT DRINK
ONLY TO
FLUSH HOLDING TANK
AND THE
DRAIN RECEPTION



Model Performance



Model Performance



Model Performance

RMSE Comparison

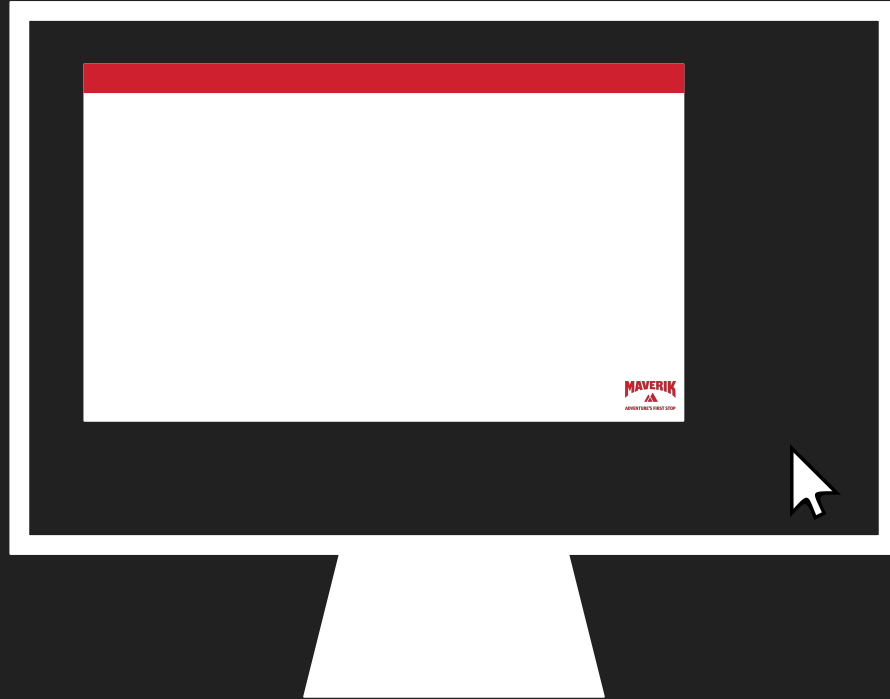
	Food		Indoor	
	Maverik	TGM	Maverik	TGM
Two week	68860	38	269521	60
Three week	66252	37	243858	59

	Diesel		Unleaded	
	Maverik	TGM	Maverik	TGM
Two week	558546	16	302827	38
Three week	482976	16	259909	37

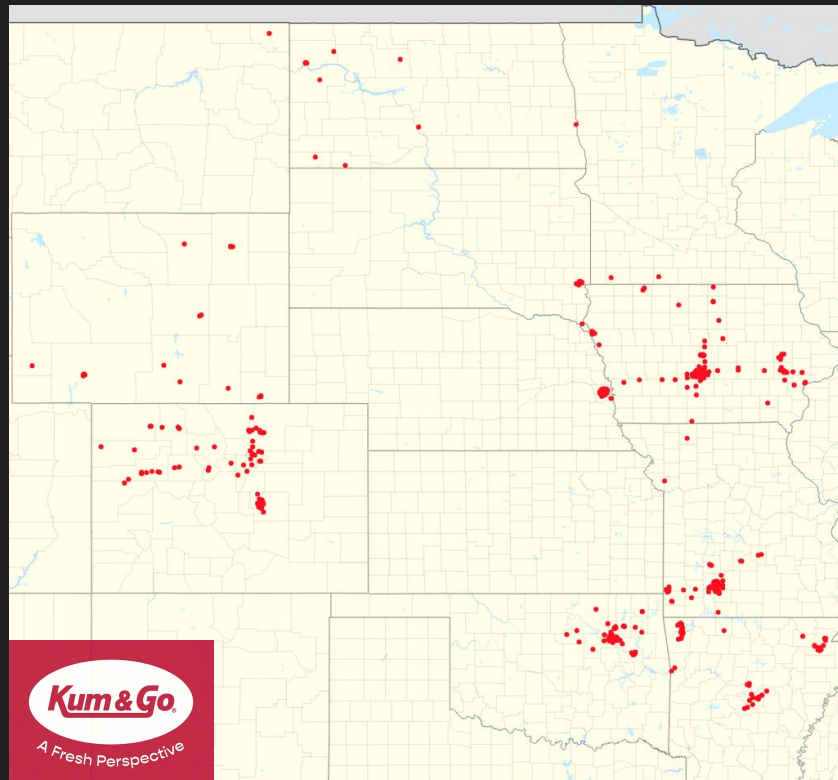
Further Features



Future Use

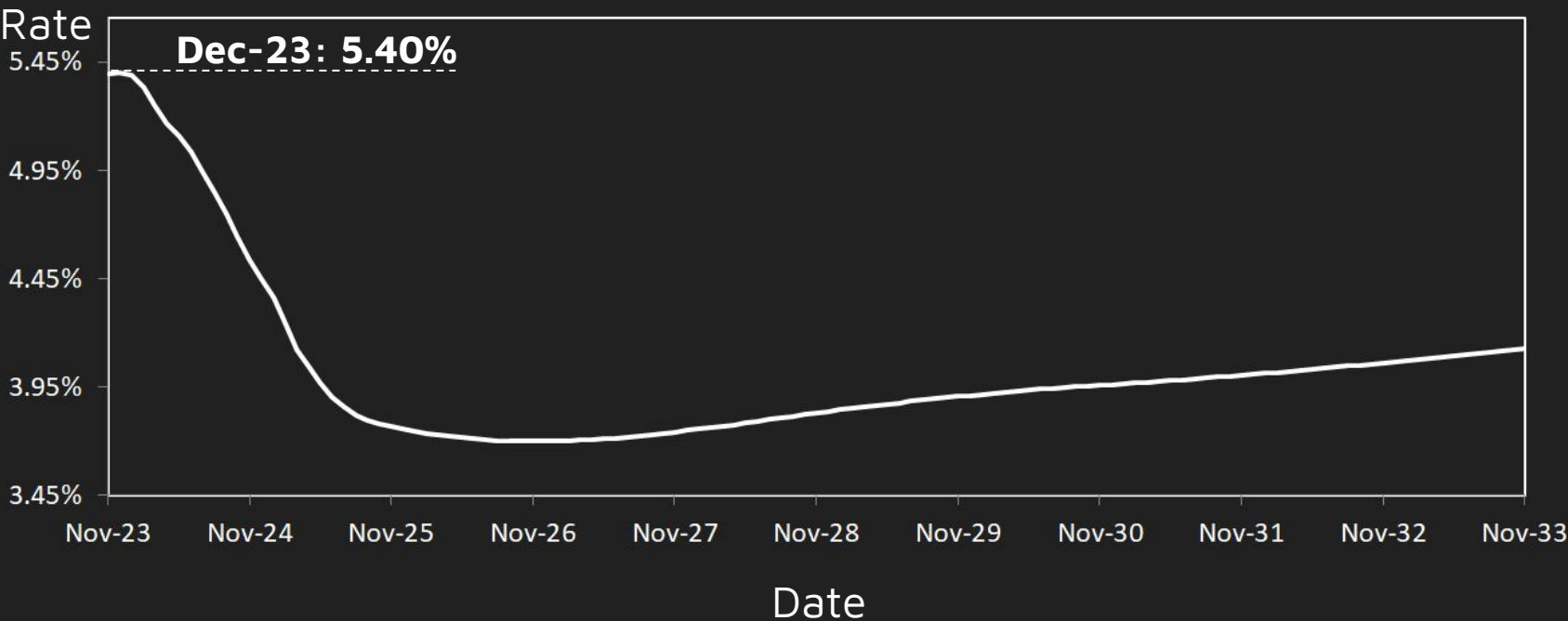


Business Impact



Business Impact

3 Month Term SOFR Forward Curve



Business Impact

3 Month Term SOFR Forward Curve



Q&A