Group Name: Solo Science Team

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Specialization: Data Science

Problem Description

A large company in the Australia beverages industry wants to improve their product sales through various super-markets and engage into heavy promotions throughout the year. To ensure efficient inventory management, they require a weekly demand forecast for each product that factors in the impact of seasonal variations and holidays.

Business Understanding

The company is a well-established player in the Australian beverage industry with a wide range of products sold through various supermarkets across the country. To increase sales and maintain their competitive edge, the company runs frequent promotional campaigns throughout the year. However, the company is facing challenges in effectively managing their inventory and forecasting demand for each product. Seasonality and holidays are major factors that can greatly impact product demand, making it difficult to accurately forecast sales on a weekly basis. To address this challenge, the company is seeking a solution that can provide a weekly forecast of each product's demand by taking into account the effects of seasonality and holidays. This will allow them to properly optimize their supply chain which thus improve profitability.

Project Timeline and Milestones

Week	Deadline	Description
1	2/19/2023	Business Understanding
2	2/26/2023	Data Understanding
3	3/2/2023	Data Cleansing & Transformation
4	3/9/2023	Exploratory Data Analysis
5	3/16/2023	EDA Presentation
6	3/23/2023	Model Building & Selection
7	3/30/2023	Final Project Report

Data Intake Report

Data Filename	forecasting_case_study.xlsx
Total number of observations	1218
Total number of files	1
Total number of features	12
Base format of the file	xlsx
Size of the data	73.8 KB

Version Control and Source Code Management

GitHub Repository Link: <u>asherchok/retail-forecasting</u>: <u>Data Glacier internship forecasting project repository (github.com)</u>