



## Data Glacier Data Scientist Internship

**Batch: LISUM23: 30**

**Week7: Deliverables**

**Project: Retail Forecasting**

**Team member's details:**

**Group Name: Retail\_forecasting**

Name	Richa Mishra	Shalu Kumar	Madoka Fujii	Shushun Ren
Email	mricha828@gmail.com	ss4676@njit.edu	mdkfji@gmail.com	shushunr@umich.edu
Country	United States	United States	United States	United States
College/Company	NJIT	NJIT	Sumitomo Mitsui Trust Bank	Umich
Specialization	Data Science	Data Science	Data Science	Data Science

### Problem Description:

This major Australian beverage corporation operates within the beverage industry. Their product distribution spans across multiple supermarket chains, and they actively conduct robust promotional campaigns year-round. The demand for their products is subject to fluctuations driven by factors such as holidays and seasonal trends. They require a weekly item-level forecast for each of their products, categorized into weekly intervals.

### Business Understanding:

The seasonality affects the beverage business very much. Although they share marketing and distributing products to many kinds of supermarkets, that is not enough and efficient without seasonality. The company needs to know more precisely the weekly basis of trends. They previously used the company's own software to predict it. However, it was very hard to predict the data and the forecasting was not accurate. To be profitable, it cannot rely on its own software anymore. A new time-series model forecasting will appropriately optimize the distribution of their products depending on the

seasonality and maximize their profit. So, they want to deploy the machine learning model to predict precisely.

**Project life cycle along with deadline:**

<b>Project weeks</b>	<b>Deadline</b>	<b>Lifecycle</b>
Week7	Aug 19, 2023	Problem statement, Pre-process
Week8	Aug 26, 2023	Data process, understanding
Week9	Sep 02, 2023	Data Cleaning, Merge, Review
Week10	Sep 09, 2023	EDA, Final recommendation
Week11	Sep 16, 2023	EDA presentation for business users
Week12	Sep 23, 2023	Model Selection and Model Building/Dashboard
Week13	Sep 30, 2023	Final Project Report and Code