**Weekly Report - 2**

**CSE 523 Machine Learning**

Group Name: **Mavericks**

**Store Sales – Time series Forecasting**

| **Group Members** | **Roll No.** |
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1. **Task Performed in the Second week:**

* Understood the data and tried to catch some patterns or anomalies.
* Explored and finalized suitable libraries for the code
* Cleaned the data from the dataset by data preprocessing.

1. **Outcome of the task in the Second week:**

* We have analyzed the given data and found some patterns/anomalies which are listed below:

1. Wages in the public sector are paid every two weeks on the 15th and on the last day of the month. Supermarket sales could be affected by this.
2. A magnitude 7.8 earthquake struck Ecuador on April 16, 2016. People rallied in relief efforts donating water and other first need products which greatly affected supermarket sales for several weeks after the earthquake.

* Here are the suitable libraries and packages which will be required:

import numpy as np

import pandas as pd

import os

import gc

import warnings

import statsmodels.api as sm

*#DATA VISUALIZATION*

import matplotlib.pyplot as plt

import seaborn as sns

import plotly.express as px

1. **Task to be performed in the next week:**

* Visualize the data for better understanding
* Import transaction data for generating new features by using transactions and finding stable patterns.
* Find relationship between transaction and sales data.