**Project Proposal – Group 6**

**Creating Supply Chain Efficiencies**

**Team Members**

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**Project Description**

This project aims at creating an efficient supply chain process for a XXXXX company by analyzing the Purchase and Sales data for XXXXX products. This will be achieved by performing machine and deep learning by identifying target and feature variables, creating clusters and performing regression if needed to help with the predictions.

The purpose of the project deliverable is to add more automation to the product ordering process based on the demand, inventory at hand, and shipment times. Another objective is to help identify the products that are highest contributor to overall sales and prioritize them to increase the company’s overall profitability. We also intend to factor in the space taken by products in the warehouse based on their dimensions and their profitability to optimize the ordering process.

**Target Audience**

The intended target audience who will benefit from this project will be the following company officials:

* Supply Chain team
* Sales team
* Strategy team/ decision makers at the top level

**Data Sources**

The data used for this project is contained in the CSVs obtained from the company. The original data has been anonymized for the purpose of this project. The CSVs have 5-years data (2018 to 2022) for Purchase, Sales and Products.

**Platforms Used:**

The following platforms will be used for ETL, machine learning and creating the dashboard:

* Python (Pandas Dataframe) for ETL
* Pandas and JavaScript for visualizations
* HTML/CSS/Bootstrap for dashboard
* Amazon AWS for hosting the data

**Napkin Drawings:**

Following are some napkin drawings we created to give an idea about what the dashboards will look like: