**Deadline: Nov. 3rd. 5pm (10%)**

**Format Requirement:**

* **Max: 15 pages**
* **Single Spaced, 11pt**

**Notice: Client is not interested in Minor Details.**

**Report Requirement:**

* **Method: CRISP-DM [6 steps!!]**
* **Summarize solution to biz problem**
* **Provide key insights from data analysis [3 Models!!]**
* **Provide details in appendix**

**Report Requirement (Details):**

**Business Problem Identification (Summarize solution)**

* Goal: Increase the profitability of the store

**Data Analysis: (Provide key insights)**

* Goal: Predictive power and Interpretability.
* Methods: possibly through different methods.

**Model Evaluation:**

* 3 Models
  + Confidence interval for the expected gross profit from a customer for each model
* Data split:
  + Random state = SID

**Methodology: (http://crisp-dm.eu/)**

Cross-Industry Standard Process for Data Mining (CRISP-DM):

* + Biz understanding
  + Data understanding
  + Data preparation
  + Modelling
  + Evaluation
  + Deployment.

**Provide details in appendix**

**Data Processing:**

1st step: Build a cost-benefit table as below

* Fill blanks
* Justify choices

2nd step: Model selection

* Model I - Logistic Regression
* Model II – Classifiers
  + - KNN / Decision Tree/ Adaboost/ Emsemble
* Model III - PCA