This lab is divided into 2 parts namely:

- 1. Data Science
  - 1.1 Initial data exploration
  - 1.2 Data Visualization
  - 1.3 Feature Selection
- 2. Machine Learning Models
  - 2.1 Supervised Learning: Linear Regression
  - 2.2 Supervised Learning: KNN for classification
  - 2.3 Unsupervised Learning: K-means clustering
- 3. Independent Work (Extra Credit)

## **Jupyter Notebook:**

Jupyter notebook is provided to you to run all the cells and show the output of each cell. Besides this, the following questions require your answer in the notebook/pdf document: 1.1, 1.2, 1.3, 2.1, 2.2, 2.3.

## What to Submit:

- 1. Jupyter file with your name
- 2. Answers in pdf documents wherever applicable

## **Rubric:**

Task	Points
1.1	10
1.2	10
1.3	20
2.1	20
2.2	20
2.3	20