Assignment – 1

[Q1] What is Machine Learning & its different types?

[Q2] Differentiate between Supervised & Unsupervised Machine

Learning.

[Q3] Differentiate between Regression & Classification Problems.

[Q4] Differentiate between Nominal & Ordinal Attributes.

[Q5] Consider the following scenarios and decide whether they can be treated as classification or regression problems:

- You are working on weather prediction and use a learning algorithm to predict tomorrow's temperature.
- You are working on stock market prediction. You would like to predict the number of company shares that will be traded tomorrow.

[Q6] Fill in the blanks:

James is given a task of making a system that recommends products to users based on their activity on Facebook. He realizes that user-interests could be highly variable. Hence he decides to first cluster the users into communities of like-minded people and then train separate models for each community to predict which product category (e.g. electronic gadgets, cosmetics, etc.) would be the most relevant to that community. The first task is a/an _____

learning problem while the second is a/an _____ problem.

[Q7] Describe the Machine Learning Work-Flow.
[Q8] What are Outliers?

[Q9] Define following terms:

(i) Median (ii) Mode (iii) Covariance (iv) Correlation

[Q10] use the given dataset and solve the ques in google colab file.

Dataset:

https://drive.google.com/file/d/1QnN0ilcOcpZm5CXQrKGRA-JuVVB6Vj_N/view?usp=sharing

Colab:
https://colab.research.google.com/drive/1Rn9f8Sy-MB5yKBVaBQhuRajq6WYNr0k6?usp=sharing

Dataset:

https://drive.google.com/file/d/1fGgjngM85cRak99X1VbvsPZxLCdcuhHk/view?usp=sharing

Colab:

https://colab.research.google.com/drive/1LCRGYn8h-u9t3HLYfJHAl3xd2BECu-u1 ?usp=sharing