# Ahmedabad University

## CSE523 Machine Learning

## Weekly Report - 4

### Section - 1

### Submitted to faculty: **Prof. Mehul Raval**

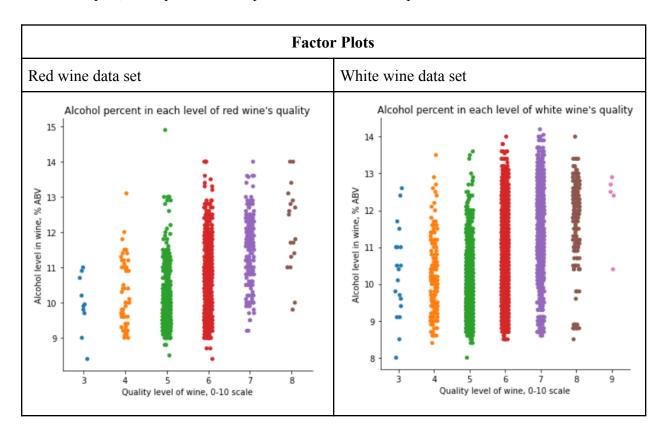### Date of Submission: 04-03-2023

| Roll No. | Name of the Student | Name of the Program |
|----------|---------------------|---------------------|
| AU2040087 | Anshi Shah | B. Tech CSE |
| AU2040215 | Yesha Dhivar | B. Tech CSE |
| AU2040111 | Kenil Shah | B. Tech CSE |
| AU2040070 | Rahi Shah | B. Tech CSE |

### 2022-2023 (Winter Semester)

**Tasks Performed:** Data Exploration and Model Building

**Outcomes:**
After countplot, factorplots are also plotted for more data exploration.

| Factor Plots | |
| --- | --- |
| Red wine data set | White wine data set |
|  |  |

By these, we can know the outliers in the data.

*Model Building:*

We are starting with Logistic Regression for the model building. These are the results for Logistic Regression on Red and White wine datasets.

| Logistic Regression results | |
| --- | --- |
| Red wine data set | White wine data set |
| Confusion Matrix:<br> [[120  39]<br> [ 40 121]]<br>Accuracy: 0.753125<br>Score: 0.753125<br>RMSE: 0.4968651728587948 | Confusion Matrix:<br> [[145 176]<br> [120 539]]<br>Accuracy: 0.6979591836734694<br>Score: 0.6979591836734694<br>RMSE: 0.5495824017620384 |