Assignment 3(CLL788)

1. Plot the training data (Data1.xlsx) to get an idea of the data distribution. Plot the points with variable 1 on x-axis and variable 2 on y-axis. Now color the coordinates/points of class 0 with blue and class 1 with red. Report your visual observations. (10)
2. Apply SVM on training data (Data1.xlsx) to find decision boundary. Plot training data along with decision boundary. (30)
3. Now apply SVM with "modified optimization problem" on Data2.xlsx and try out different values of C and report your observations along with plots of the decision boundary. (20)
4. Classify Red Domestic SUV using Naïve Bayesclassifier manually. (20)

Example No.	Color	Type	Origin	Stolen?
1	Red	Sports	Domestic	Yes
2	Red	Sports	Domestic	No
3	Red	Sports	Domestic	Yes
4	Yellow	Sports	Domestic	No
5	Yellow	Sports	Imported	Yes
6	Yellow	SUV	Imported	No
7	Yellow	SUV	Imported	Yes
8	Yellow	SUV	Domestic	No
9	Red	SUV	Imported	No
10	Red	Sports	Imported	Yes

Submission Details

1. Submit a zip file on moodle named "EntryNumber.zip" with all the code files and a **pdf with all the graphs and analysis**. Only Matlab & python are allowed.
2. Deadline for the submission (check on moodle).