CLL788
Assignment 2

1. A university conducts 2 exams – Aptitude & Verbal as its entrance test to a 2- year program. Based on the scores of these 2 papers, admission is given to students. University has not mentioned the exact criteria of selection. Based on historical data, you need to predict whether a student will get admission based on his/her scores in the 2 exams. Data is provided in q1train.csv & q1test.csv. Train.csv contains training data. First column contains the score of Aptitude exam, 2nd column contains the score of verbal exam and 3rd column indicates whether that student got admission or not. 0 indicates not selected whereas 1 means selected. q1test.csv contains test data.

   A) Apply perceptron on training data with the first 2 columns as input data and the third column as output. Use any suitable learning rate.

   B) Now predict admission results on test data (Test.csv) and print the result in output1.txt with every line of the text file containing either 0 or 1. Plot the results like in step 1.

   C) Compare the results with the logistic regression. (Assignment 1).

2. Let class 1 have the 5 samples c1 = [(1,2),(2,3),(3,3)(4,5),(5,5)] and let class 2 have 6 samples: c2 = [(1,0),(2,1),(3,1),(3,2),(5,3),(6,5)]. Using discriminant analysis find projections y1 & y2 respectively for c1 & c2. This question has to be done manually.

   Submission Details
   1. Submit a zip file on moodle named "EntryNumber.zip" with all the code files and a <u>pdf with all the graphs and analysis</u>. Only Matlab(.m) & python(.py or .ipynb) are allowed.
   2. Deadline for the submission is 17th March 11:59 PM.