SRIP PROJECT 1 DOCUMENTATION

BAYESIAN CLASSIFICATION

Task Allotted:-

1. In virtual-labs repository, pattern-recognition-iiith lab, the task was to resolve Issue No.242

2. Issue No. 242 was to convert following Bayesian classification experiment to JavaScript.

Link to the experiment:-

http://cse20-iiith.vlabs.ac.in/exp5/Experiment.html?domain=Computer%20Science&lab=Pattern%20Recognition%20Lab

Experiment Explanation:-

1. Bayesian classification is based on Bayes' Theorem. Bayesian classifiers are the statistical classifiers. Bayesian classifiers can predict class membership probabilities such as the probability that a given tuple belongs to a particular class.

2. As per the 6 values each belonging to 2 classes (Class1 and Class 2), the simulator gives a shape either circle or an ellipse as per the values.

How to Run the Experiment:-

1) My forked repository (https://github.com/shubhamagarwal1998/pattern-recognition-iiith) contains a folder named “SRIP”.
2) SRIP folder contains a folder named as Codes. It contains all the files containing code for the experiment written in JavaScript, HTML, CSS.
3) The codes folder contain 4 files. To run the experiment simply run the index.htm file by clicking on it.
4) The experiment will run in the browser.
5) The experiment can be executed either by Load button or Generate button.
6) If you want to run the experiment by Load button, first choose a value from the 4 dataset values which are provided in the list. For every dataset values default values are stored for every text field. With the help of the values from the text field appropriate shapes will be displayed.
7) If you want to give random values in the text field then click Generate button and according to the values you entered an appropriate shape will be

displayed. Enter numerical value only and no text field should be remain empty.

8) Since there are 2 classes so 2 shapes will be displayed with different colours in order to differentiate.
9) Click on Mark button and then any random point can be marked on the graph. If the x-coordinate of the point is even then it is marked as black otherwise red.
10) Click on Mark All button and according to the value of the slider the graph will be divided into 2 portions of 2 colours.
11) Click on clear button to clear the portion and points marked if any.
12) Click on Resize Axes button and only first quadrant will be displayed.