Offline

Implement perceptron algorithm to classify data into two classes.

You are given a sample training and test cases file. As you can see from the plot the given data are distributed into two classes.

Use train.txt to estimate the weight of perceptron. And show the result using test cases.

In this offline you are required to use three variants of trivial perceptron algorithm.

1. Simple perceptron algorithm where you have to initialize weights randomly and then pass each training example through this perceptron. Update the weights based on the incorrect classified examples together.
    [Check the procedure attached in slide no 21]

2. Reward and punishment type perceptron algorithm where you read each training example and update weights accordingly.
    [Slide no 34]

3. Pocket algorithm of Perceptron [slide no 35]

Use reference book for implementation details.
    [attached book pdf page no 97] and 98 for variants of perceptron.

    Show number of correctly classified test cases for different learning rate.