

CMPE 462

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Assignment I

Description:

This assignment consists of 2 parts:

The first one is about perceptrons and the second part is about linear regression.

How to run:

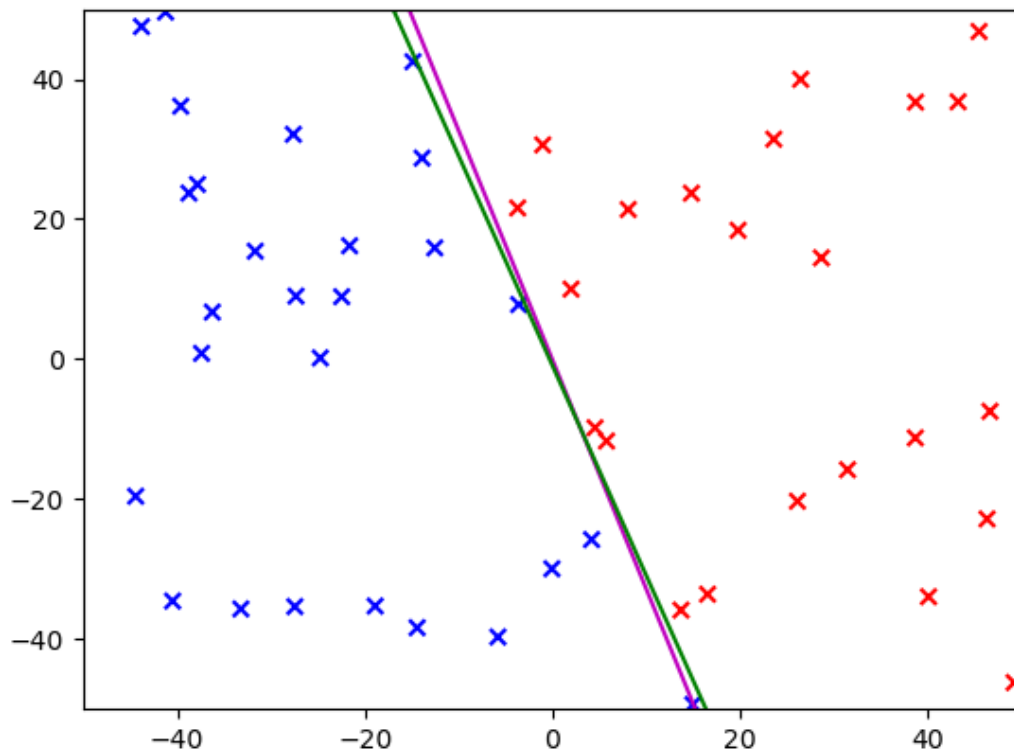
```
python main.py <part_num> <step_num>
```

Part I:

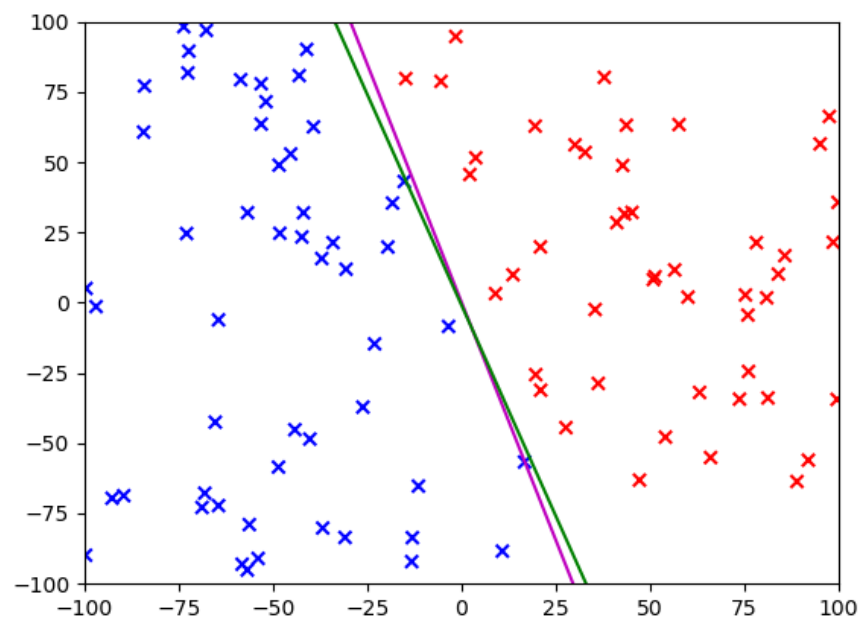
In Part 1 of this assignment, I have implemented Perceptron Learning Algorithm. I observed that as I increase the size of dataset, accuracy and number of iterations have increased.

I have to run the code with 3 different settings: 50,100,5000

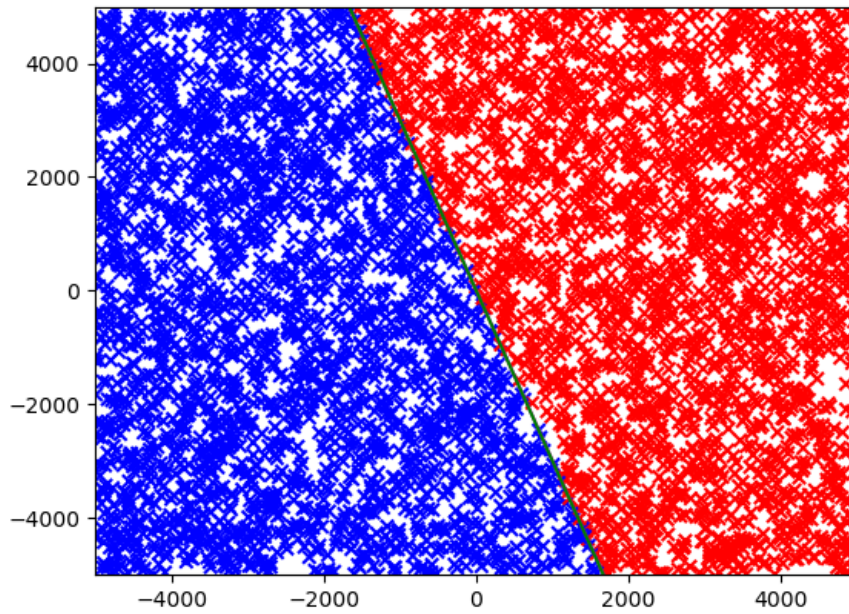
For 50, I plotted:



For 100:



For 5000:



Part 2:

In Part 2 of this assignment, I have implemented Multiple Linear Regression.

I have to run the code for two different databases and with a lambda variable for regularization.