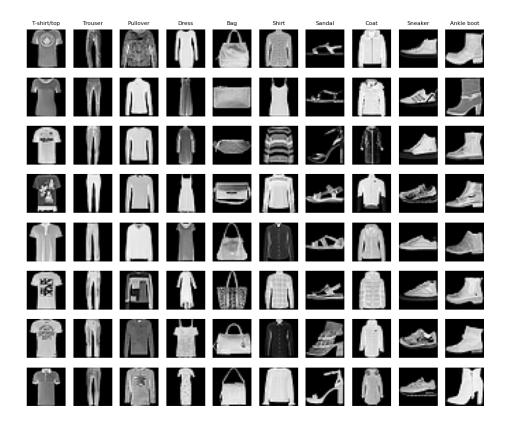
## Assignment 4

Problem: 1



This is the plot of the random 80 samples from the training data. 8 from each class.



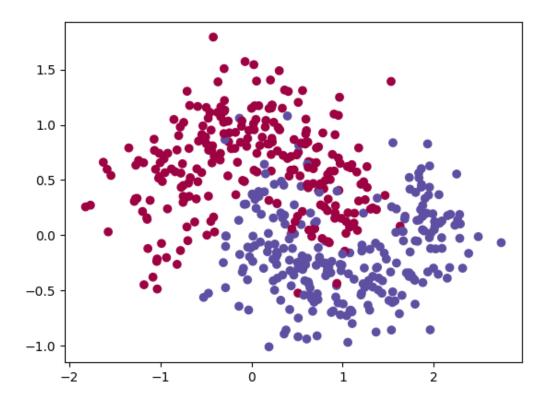
This is the random plot of the few samples from the test data. with their True and Predicted labels.

1.8 ReLU Sigmoid 1.6 -1.4 Cross Entropy Loss 1.2 1.0 0.8 0.6 0.4 0.2 100 200 400 300 500 0 Epochs

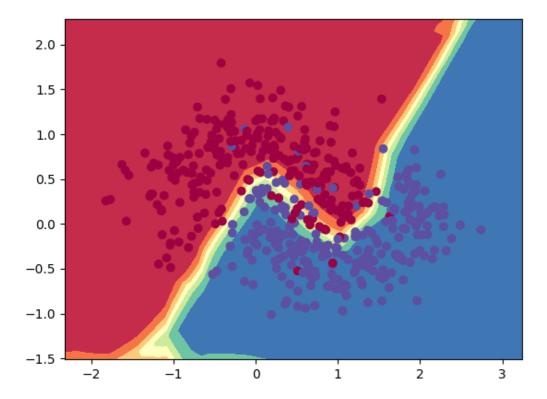
This is the plot for the comparision of the loss of sigmoid and relu as the activation function of the hidden layer

- 1. We can see here that the loss for relu as the activation function is not that smooth as compared to the sigmoid function. But still is is not that much fluctuating.
- 2. So relu is a better choice as the activation function for the hidden layer.

Problem: 2



This is a scatter plot of the Binary Classification dataset.



This is descision boundary of the classification data points with the scatter plot of the data points.