Group id: 1801cs08_1801cs11_1801cs53

Group Members:
1. Ammaar Ahmad - 1801cs08
2. Ayush Pandey- 1801cs11
3. Sumit Raj- 1801cs53

Subject: Artificial Intelligence Lab 6
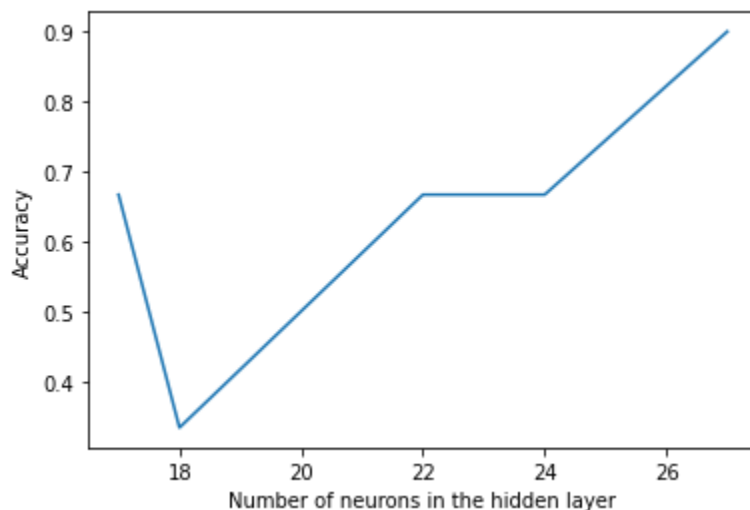**Date: 09/11/2021**

Q1. Implement XOR Function using neural networks. Trained for 100000 epochs. The Neural Network had one hidden layer with 2 neurons. All four cases were correctly predicted after training

Q2.
Train Set - 120 example (40 of each label)
Test Set - 120 example (10 of each label)
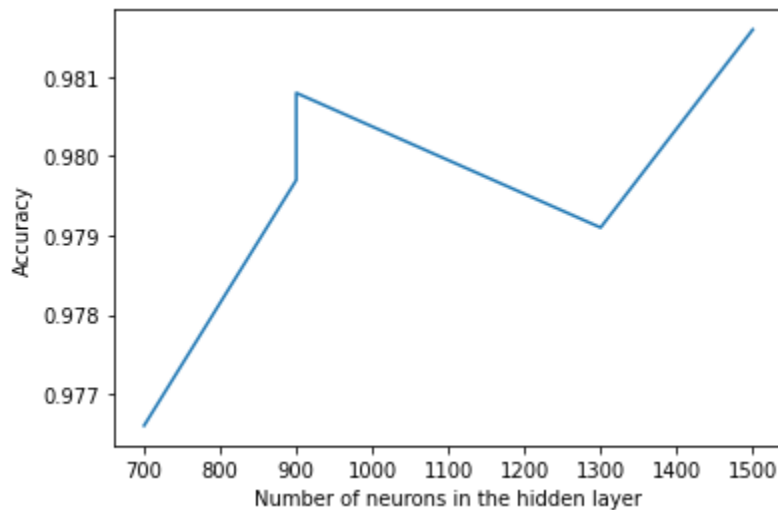Number of neurons vs Accuracy Plot on IRIS dataset.

Conclusion : It is highly unstable due to less number of training examples

Q3.
Train Set - 60000 example
Test Set - 10000 example

Number of neurons vs Accuracy Plot on MNIST dataset.

Conclusion : Highest F1 Score with Hidden Layers (600, 500, 400) and lowest (200, 200, 300). Increments in the number of neurons generally help the model for better prediction. There was a slight dip in 4th iteration having (300, 400, 600) neurons suggesting that initial layers should have more neurons as compared to later layers.