MLFA LAB
Assignment - 5

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Experiment 1

Learning Curves for the three models:

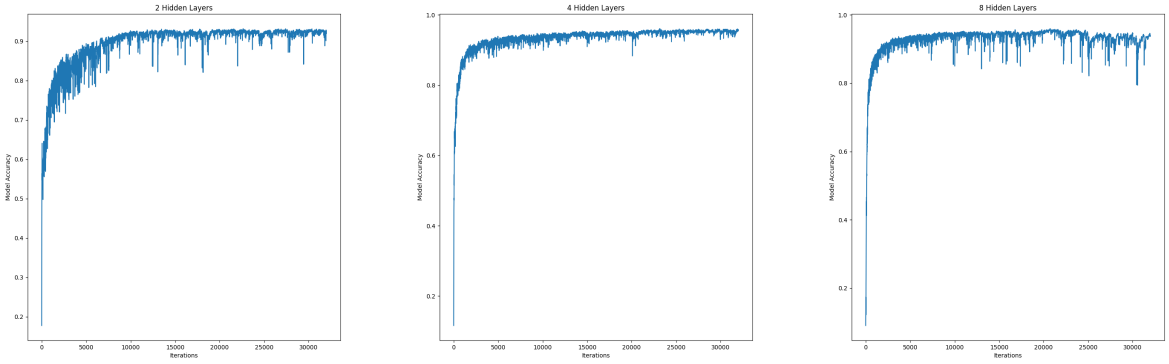


Figure 1: Model Accuracy v/s Iterations

Remarks:

We call model with 2 hidden layers as **S**, 4 hidden layers as **M** and 8 hidden layers as **L**.

1. **M** and **L** achieve high accuracy faster than **S** while **S** and **M** are more consistent.
2. **M** achieves the highest accuracy among the three(but the differences are small).

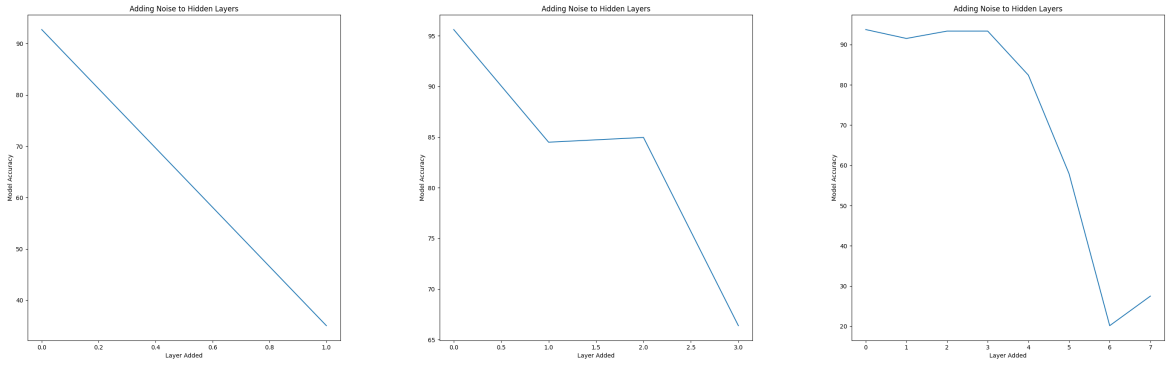
Test Accuracies:

Num Hidden	Accuracy
2	92.95
4	95.74
8	93.94

Table 1: Num Hidden v/s Test Accuracy

Experiment 2

Learning Curves for the three models:



(a) (b) (c)

Figure 2: Model Accuracy v/s Iterations

Remarks:

1. General trend is that adding noise in the **early hidden layers doesn't affect** the **accuracy much** whereas **deeper hidden layers are** much more **susceptible to noise**.
2. **M** attains the highest accuracy after noise among the three, followed by **S**, followed by **L**.