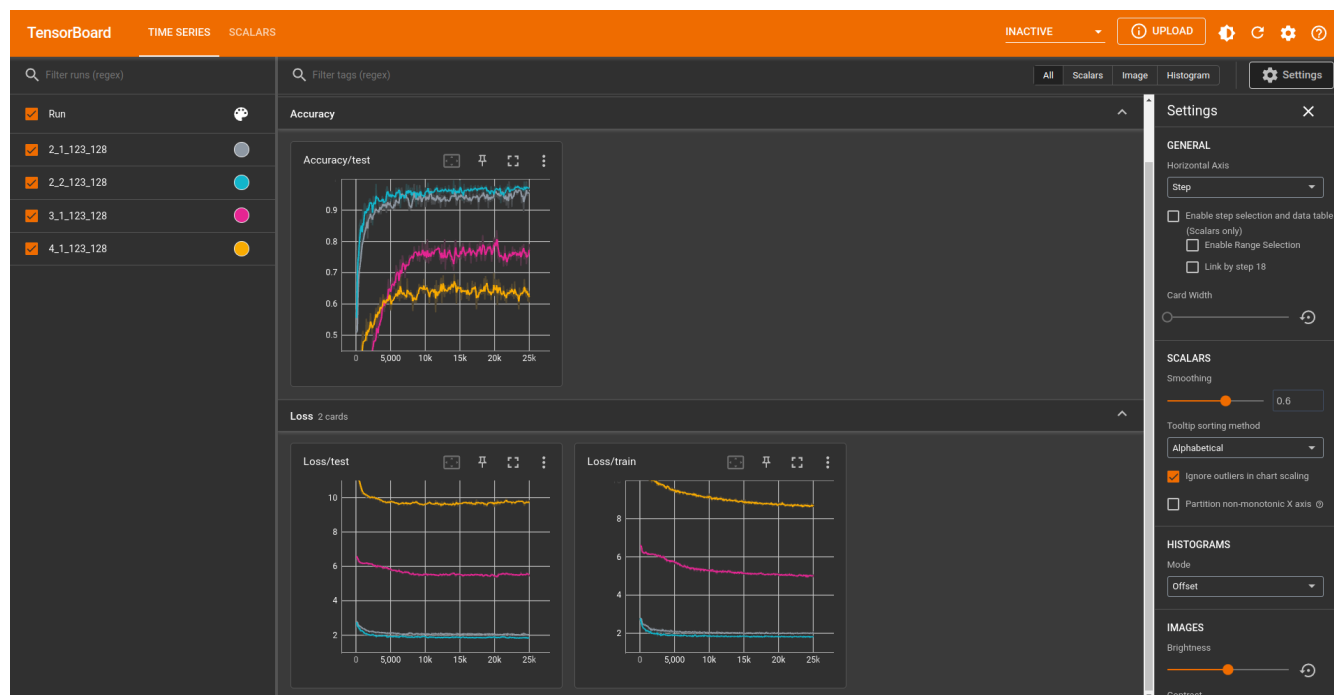This handout includes space for every question that requires a written response. Please feel free to use it to handwrite your solutions (legibly, please). If you choose to typeset your solutions, the `README.md` for this assignment includes instructions to regenerate this handout with your typeset LATEX solutions.
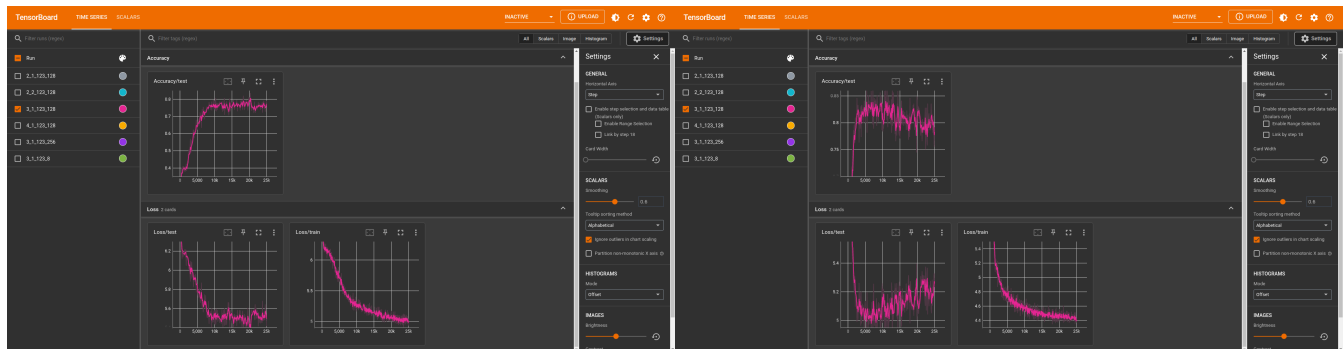
3.a

Based on the plot above, when we include more classes and the number of examples stays the same our performance drops significantly, learning is slower and plateaus earlier.

3.b

Based on the graph from 3a we can see that when the number of examples is increased performance improves, the model learns faster and has a higher accuracy.

4.a

For this experiment I chose to change the number of layers in the network. The plot on the left is the 2 layer network from this assignment and the plot on the right shows a 3 layer network. Both networks have the same K and N of 1 and 3. The choice to add another layer to the network is to investigate if adding more layers increases the performance of the N = 3 network. Looking at the plot we see that the 3 layer network learned faster but seems to begin overfitting. The next step would be to investigate increasing K in order to prevent the 3 layer network from overfitting.

4.b
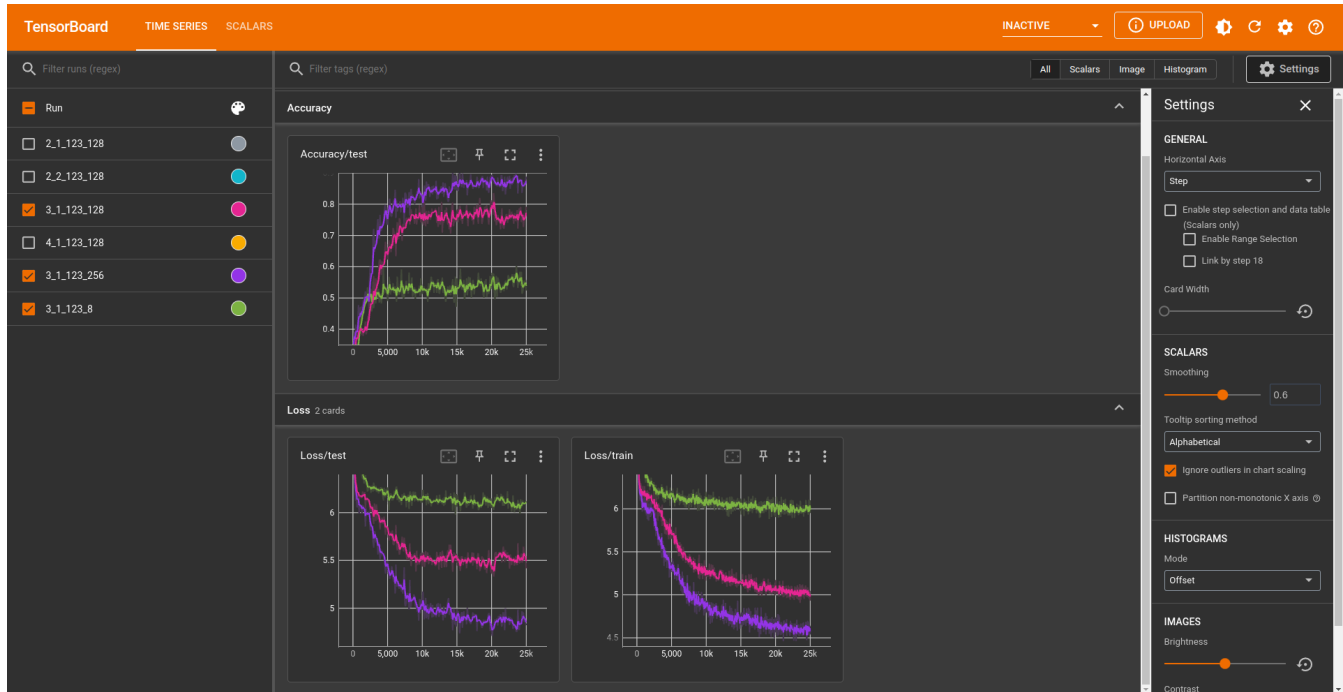
Based on the plot above we can see that by increasing the amount of memory accuracy goes up faster and plateaus higher. When the memory is decreased accuracy decreases as well.