What happens when the number of hidden nodes increase?

Initially, as the number of hidden units increases from 1 to 3, there is a significant improvement in accuracy, from 67.50% to 91.00%.

Further increases in the number of hidden units continue to improve the accuracy, reaching a peak of 93.00% at 20 hidden units.

Beyond 20 hidden units, the accuracy remains relatively stable, with slight fluctuations but no significant improvement.

Can you explain the pattern of the accuracy when the hidden nodes increase?

Initial Increase: With only 1 or 2 hidden units, the model is too simple to capture the complexity of the data. This results in relatively low accuracy. As the number of hidden units increases to 3 and 5, the model gains the capacity to learn more complex patterns, leading to a substantial increase in accuracy.

Optimal Range: Between 10 and 20 hidden units, the model reaches an optimal range where it has enough capacity to capture the data's patterns without overfitting. This results in the highest accuracy observed in the experimentA screenshot of a computer

Description automatically generatedDiminishing Returns: Beyond 20 hidden units, adding more units does not significantly improve accuracy. The model might be starting to overfit the training data, or the additional complexity does not contribute meaningfully to the performance given the dataset.