

# Neural Networks

**This exercise builds on the previous exercises of Logistic Regression.**

## **1. Adding a Neural Network**

Steps: Model → Neural Network

- Connect it with Data Partition node
- Click the ellipsis next to Optimization in Property panel → Change Enable in Preliminary Training section from Yes to No.
- Change Model Selection Criterion from Profit/Loss to Misclassification
- Run the node and view the results
- **Are you concerned with the results? Why?**

## **2. Increasing Maximum Iterations for Convergence or Optimazation**

Steps: Select Neural Network node → Click the ellipsis next to Optimization in Property panel → Change Maximum Iterations from 50 to 1000.

- Run the node and see the Results
- **What is the misclassification rate of this model?**

## **3. Increasing Network Flexibility**

Steps: Copy and Paste the Neural Network node

- Connect it with Data Partition node
- Click the ellipsis next to Network in Property panel → Change Number of Hidden Units from 3 to 10
- Run the node and view the results
- **Does this model has lower misclassification rate?**