Multi-layer Perceptrons (MLP) with BP Training

Exercise 1.
The example program (demo) demonstrates the capability of an MLP to model the XOR logic gate. Open the demo.m program and then go through it. There are 4 clusters of data (A,B,C,D) are defined in a 2-dimensional input space. (A,C) and (B,D) clusters represent XOR classification problem. Understand the codes and experiment with different configurations.

Exercise 2.
In this exercise, you are required to demonstrate the capability of an MLP to approximate the function
$$f(t) = \sin(t)*\exp(-t/20); \quad 0 < t < 50$$
Experiment with different number of training data points, different number of hidden layers and nodes, etc.