Task 1

Using the neural network simulator available here:

https://playground.tensorflow.org/#activation=tanh&batchSize=10&dataset=spiral&regDataset=regplane&learningRate=0.03&regularizationRate=0&noise=0&networkShape=4,2&seed=0.88436&showTestData=false&discretize=false&percTrainData=50&x=true&y=true&xTimesY=false&xSquared=false&ySquared=false&cosX=false&sinX=false&cosY=false&sinY=false&collect Stats=false&problem=classification&initZero=false&hideText=false For the following input data settings:

Choose appropriate parameters:

1. Features
2. number of hidden layers
3. Number of neurons in each layer 4. Activation function to achieve test loss value below 0,04.

You should minimize:

1. the number of inputs
2. the number layers
3. the number of neuron in each layer

Prepare the report which contains at least:

1. the parameters of the resultant neural network
   1.1. Features

1.2. number of hidden layers
1.3. Number of neurons in each layer
1.4. Activation function justification of the choice of the parameters
1.5. your conclusions concerning the neural network design
1.6. Learning rate
1.7. Regularization type
1.8. Regularization rate
1.9. Test loss value
1.10. Training loss value
1.11. Output image
1.12. Print screen of the neural network