Lab Assignment (16/04/2022)

Task 1

1. Download the iris dataset using the link https://www.kaggle.com/datasets/uciml/iris?select=Iris.csv
2. Construct a neural network with multiple hidden layers
3. Split the dataset into Training (70%) and Testing (30%)
4. Train the data using the constructed neural network with the following settings:

(i) Loss function= cross entropy, optimizer= Adam, Activation in output layer= softmax, Activation in hidden layer= sigmoid

(ii) Loss function= cross entropy, optimizer= Adam, Activation in output layer= softmax, Activation in hidden layer= Relu

Task 2

Construct a medical diagnosis agent to identify the stages of Cirrhosis Disease.

(i) Download the dataset from https://www.kaggle.com/datasets/fedesoriano/cirrhosis-prediction-dataset

(ii) Construct a neural network using multiple hidden layers

(iii) Convert the categorical attributes to numerical and drop the unnecessary attributes.

(iv) Fill the missing values if any or drop the entire record.

(v) Split the dataset into Training (70%) and Testing (30%)

(vi) Train the data using the constructed neural network with the following settings: Loss function= cross entropy, optimizer= Adam, Activation in output layer= softmax, Activation in hidden layer= Relu

(vii) Compute the accuracy of the model.