PRACTICAL-3

Aim:

To build the Image Classification model by dividing the model into 4 stages.

Objective:

a. Loading and preprocessing the image data.

b. Defining the models architecture

c. Training the model.

d. Estimating the model's performance.

Theory:

- Image Classification is the process of assigning classes to images. This is done by finding similar features in images belonging to different classes and using them to identify and label images.

- Image Classification is done with the help of neural networks. Neural networks are deep learning algorithms. The below figure shows a neural networks.

- Neural network contains multiple layers of neurons that perform prediction, classification, etc. The output of each neuron is fed to the neurons in the next layer which helps fine-tune the output layer.

- The different layers which are present in a neural networks are:

i. INPUT LAYER:

This is the large through which we give the input to neural network.
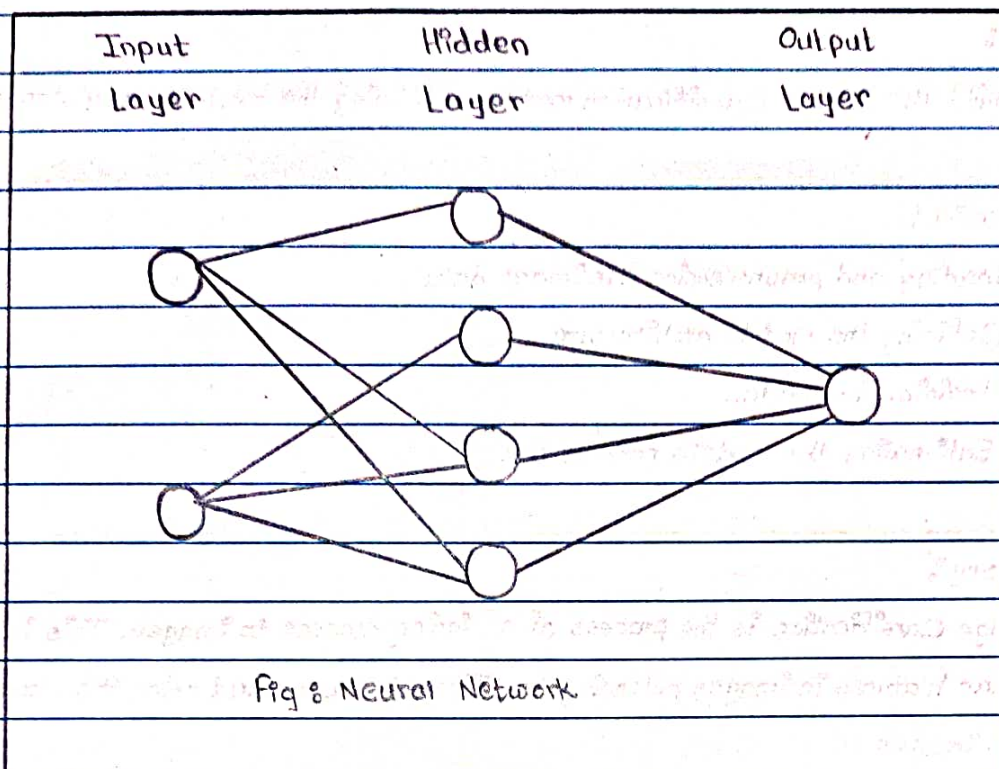
ii. HIDDEN LAYER:

This layer contains various neurons which process the input received from input layer.

iii.

OUTPUT LAYER:

The final layer is the network which processes the data one last and gives the output.

Input	Hidden	Output
Layer	Layer	Layer

Fig : Neural Network

CONCLUSION :

We have successfully build an Image Classification model using the given stages and divide the model into it.