**Exercise-2**

**Original code:**

The dataset used consists of multiple images. Firstly, the dataset is loaded and then different pre-processing techniques are applied like converting the images to gray scale and normalizing them to increase/improve the accuracy of the model. Secondly, the MLP classifier is trained with hidden layers = 4, num\_iterations = 100 and alpha = 1e-5. The solver ‘adam’ is used, which is helpful for decreasing thr the value of loss function in the training process. After training and predicting, the confusion matrix is used for further clarity and calculations to measure the performance by using recall, precision and f1-score etc.

**Changes done in the code:**

The changes include the changes in parameters in MLP classifier. The alpha is now changed to 1e-35, the number of hidden layers is increased to 40 and the number of iterations is also increased to 500. Rest of the code is same. The accuracy after changing the parameters is improved/increased to 89.46