### 21BDS0340

### Abhinav Dinesh Srivatsa

Deep Learning Lab

# Assignment – IV

# **Procedure:**

- 1. Import the required packages
- 2. Load the dataset locally
- 3. Normalize the train features
- 4. Reshape the train features for the convolutional layers
- 5. Split the training data into train and validation datasets
- 6. Plot a random training data sample
- 7. Build the TensorFlow model
- 8. Evaluate the model with the test datasets
- 9. Plot the model accuracy vs validation accuracy
- 10. Plot the model loss vs validation loss
- 11. Find the confusion matrix between real and predicted classes
- 12. Find the F1, precision, recall and support scores for the confusion matrix

# **Interactive Python Notebook on the following pages:**