Assignment 3: Unit 3

For the data shared build a classification model using CNN and Keras and perform below tasks.

- Plot the test and validation, loss and accuracy.
- Check for overfitting and apply L1, L2 regularisation, early stopping and dropout techniques.
- Plot the accuracy and loss with different optimizers.
- Fine tune hyperparameters using Keras tuner.
- Display confusion matrix
- Calculate accuracy, precision and recall
- Plot the ROC curve
- Chose the right threshold for sigmoid output.
- Note : Upload only the .ipynb file without zipping.

Click on the below link to access the Data Set (chest_xray_images.rar)

https://drive.google.com/file/d/13Bp1MzUpUZPkMIjldw9ei6EWklgSrxGx/view?usp=sharing