APPROACH TO THE PROBLEM STATEMENT

AIM: To create a model to classify whether a CT Scan image is of a Covid-19 infected patient or a normal person.

APPROACH:

1.)Download the dataset.

2.)Import the necessary libraries.

3.)Connect the dataset with Google Colab via Google Drive.

4.)Perform Image Pre-processing.

5.)Categorize data and plot Histogram.

6.)Do data augmentation.

7.)Perform model training using ResNet 50.

8.)Use ReduceLROnPlateau to reduce the learning rate if the metric is not improving or getting overfitted and the accuracy is good.

9.)Use Confusion Matrix & also plot the graph for accuracy & loss.

10.)Final output prediction.

CONCLUSION:-

In this developed model, Resnet50, one of the CNN architectures, was used as the base. By using “Adam” optimizer and “sigmoid” activation function an accuracy rate of 98% was achieved.As per the dataset the accuracy was above 90% and loss is getting decreased in every epoch. So more the training would give good accuracy. Also did used the model for the prediction which was good enough to give accurate decisions. Also the model was not over fitted or under fitted. The future scope would be to use real world data (primary data) also compare the model with the various other model Xception and VGG19. Also to choose between them which model is good or which model is giving the good accuracy