Thank you Jagath.

Now after seeing the main paper implementation and then improving on the method by introducing max pooling layers, we got the accuracy up till 55 % approximately. After seeing this result, we got motivated and decided to improve our model further. Hence, we tried to work on increasing the number of convolutional layers. In yolo, the convolutional layers are used for object detection, and they are generally used as a single regression problem like straight from the image pixels to the coordinates.

We hence tried to basically increase the number of Convolutional neural network layers or in simple words we increased the depth of the network. Initially the number of layers were around 50. Now we doubled the layers with the same padding, included max pooling and activation functions and we were happy with the results. We ran the model again for almost 6 hours which is same as the other two models and got the mean average precision as 68.75% and the average loss came down to 0.37. So, after doing this on the training data, we took a random image from google and ran the algorithm. We have mentioned it in the report that the licence plate was able to be detected with 0.87 percent probability

So, this is our second improvement which helped improve the accuracy by approximately 12%. So after the training, you can see the graph for the same. Now I would like Vaibhav to continue. Thank You!!

What is Darknet? Darknet is an open source neural network framework. It is **a fast and highly accurate (accuracy for custom trained model depends on training data, epochs, batch size and some other factors) framework for real time object detection**