Experiment No	Model	Result	Decision + Explanation
1.	Conv3D	Resource Exhausted	The batch size was 100. Couldn't fit this into GPU memory. Reduce the batch size.
2.	Conv3D	Resource Exhausted	The batch size was reduced to 70. Couldn't fit this into GPU memory. Reduce the batch size.
3.	Conv3D	Accuracy - 0.46	The batch size was 50. No of epochs were 10. Increase the no of epochs as the val_accuracy was increasing and the model was not stable
4.	Conv3D	Accuracy - 0.66	Increased the no of epochs to 30. The model became stable but the accuracy was not as desired.
5.	Conv3D	Accuracy - 0.67	Dropouts were added. No significant improvement in the model. Increase the training data by using transformations.
6.	Conv3D	Accuracy - 0.77	Used warpAffine transformation to double the training data & the model accuracy got increased. But the no. of parameters are more. **(36 lakhs).** The model size is around **43 MB**.
7.	Conv3D	Accuracy - 0.84	Just for experiment - Increased the no of layers in the model. Accuracy improved but the no. of parameters were high **(94 lakhs).** Model 6 & 7 both had more no. of parameters. So, decided to work on reducing the parameters and not affecting the accuracy much.
8.	Conv3D	Accuracy - 0.72	Parameters were reduced to **(2 lakhs 30k)** by reducing the number of neurons in convolutional and dense layers). **The memory footprint** of this

			model was `2.87MB.** The model is lightweight & can be easily integrated in mobile devices.
9.	CNN + RNN	Accuracy - 0.55	The accuracy was less due to less no of epochs 10 and batch size 10. Increase batch size & epoch.
10.	CNN + RNN	Accuracy - 0.72	The no of parameters were around (**16 lakhs**). The same accuracy was being achieved with much less number of parameters using Conv3D model.
11.	CNN + RNN	Accuracy - 0.76	The no. of parameters were increased to **25 lakhs.** For increasing the accuracy, the no. of parameters were needed to be increased. Same accuracy can be achieved with Model 8 with much less params.
12.	Transfer Learning (Mobilenet)	Accuracy - 0.55	The weights of mobilenet were not trained. Hence, the accuracy was low. Decided to train them as well.
13.	Transfer Learning (Mobilenet)	Accuracy - 0.85	The no of epochs were 10. The model was not stable. Increase the epochs to have more accuracy.
14.	Transfer Learning (Mobilenet)	**Accuracy - 0.97**	The no of parameters were around (**36 lakhs**). The accuracy was the best among all the 3 main types of model tried. But the memory footprint is heavy (**44 MB**). It's not good for mobile devices. This model was certainly better then Conv3D Model (Model 6 with same no of parameters).