

Project Development Model Performance Test

Date	20/11/2022
Team ID	PNT2022TMID38587
Project Name	Real-time communication system for specially abled
Maximum Marks	10 Marks

Model Performance Testing:

Project team shall fill the following information in model performance testing template.

S.No.	Parameter	Values	Screenshot																																																			
1.	Model Summary	-	<div><pre>model.summary()</pre></div> <div>Model: "sequential"</div> <table><thead><tr><th>Layer (type)</th><th>Output Shape</th><th>Param #</th></tr></thead><tbody><tr><td>conv2d (Conv2D)</td><td>(None, 48, 48, 32)</td><td>320</td></tr><tr><td>max_pooling2d (MaxPooling2D)</td><td>(None, 24, 24, 32)</td><td>0</td></tr><tr><td>dropout (Dropout)</td><td>(None, 24, 24, 32)</td><td>0</td></tr><tr><td>conv2d_1 (Conv2D)</td><td>(None, 22, 22, 64)</td><td>18496</td></tr><tr><td>max_pooling2d_1 (MaxPooling2D)</td><td>(None, 11, 11, 64)</td><td>0</td></tr><tr><td>dropout_1 (Dropout)</td><td>(None, 11, 11, 64)</td><td>0</td></tr><tr><td>conv2d_2 (Conv2D)</td><td>(None, 9, 9, 128)</td><td>73856</td></tr><tr><td>max_pooling2d_2 (MaxPooling2D)</td><td>(None, 4, 4, 128)</td><td>0</td></tr><tr><td>dropout_2 (Dropout)</td><td>(None, 4, 4, 128)</td><td>0</td></tr><tr><td>conv2d_3 (Conv2D)</td><td>(None, 2, 2, 256)</td><td>295168</td></tr><tr><td>max_pooling2d_3 (MaxPooling2D)</td><td>(None, 1, 1, 256)</td><td>0</td></tr><tr><td>dropout_3 (Dropout)</td><td>(None, 1, 1, 256)</td><td>0</td></tr><tr><td>flatten (Flatten)</td><td>(None, 256)</td><td>0</td></tr><tr><td>dense (Dense)</td><td>(None, 1024)</td><td>263168</td></tr><tr><td>dense_1 (Dense)</td><td>(None, 512)</td><td>524800</td></tr><tr><td>dense_2 (Dense)</td><td>(None, 37)</td><td>18981</td></tr></tbody></table> <div>=====</div> <div>Total params: 1,194,789 Trainable params: 1,194,789 Non-trainable params: 0</div>	Layer (type)	Output Shape	Param #	conv2d (Conv2D)	(None, 48, 48, 32)	320	max_pooling2d (MaxPooling2D)	(None, 24, 24, 32)	0	dropout (Dropout)	(None, 24, 24, 32)	0	conv2d_1 (Conv2D)	(None, 22, 22, 64)	18496	max_pooling2d_1 (MaxPooling2D)	(None, 11, 11, 64)	0	dropout_1 (Dropout)	(None, 11, 11, 64)	0	conv2d_2 (Conv2D)	(None, 9, 9, 128)	73856	max_pooling2d_2 (MaxPooling2D)	(None, 4, 4, 128)	0	dropout_2 (Dropout)	(None, 4, 4, 128)	0	conv2d_3 (Conv2D)	(None, 2, 2, 256)	295168	max_pooling2d_3 (MaxPooling2D)	(None, 1, 1, 256)	0	dropout_3 (Dropout)	(None, 1, 1, 256)	0	flatten (Flatten)	(None, 256)	0	dense (Dense)	(None, 1024)	263168	dense_1 (Dense)	(None, 512)	524800	dense_2 (Dense)	(None, 37)	18981
Layer (type)	Output Shape	Param #																																																				
conv2d (Conv2D)	(None, 48, 48, 32)	320																																																				
max_pooling2d (MaxPooling2D)	(None, 24, 24, 32)	0																																																				
dropout (Dropout)	(None, 24, 24, 32)	0																																																				
conv2d_1 (Conv2D)	(None, 22, 22, 64)	18496																																																				
max_pooling2d_1 (MaxPooling2D)	(None, 11, 11, 64)	0																																																				
dropout_1 (Dropout)	(None, 11, 11, 64)	0																																																				
conv2d_2 (Conv2D)	(None, 9, 9, 128)	73856																																																				
max_pooling2d_2 (MaxPooling2D)	(None, 4, 4, 128)	0																																																				
dropout_2 (Dropout)	(None, 4, 4, 128)	0																																																				
conv2d_3 (Conv2D)	(None, 2, 2, 256)	295168																																																				
max_pooling2d_3 (MaxPooling2D)	(None, 1, 1, 256)	0																																																				
dropout_3 (Dropout)	(None, 1, 1, 256)	0																																																				
flatten (Flatten)	(None, 256)	0																																																				
dense (Dense)	(None, 1024)	263168																																																				
dense_1 (Dense)	(None, 512)	524800																																																				
dense_2 (Dense)	(None, 37)	18981																																																				

2.	Accuracy	<div>Training Accuracy - 0.9802</div> <div>Validation Accuracy - 0.9984</div>	<div>Epoch 1/5</div> <div>148/148 [=====] - 621s 4s/step - loss: 1.3820 - accuracy: 0.5761 - val_loss: 0.2260 - val_accuracy: 0.9277</div> <div>Epoch 2/5</div> <div>148/148 [=====] - 409s 3s/step - loss: 0.2043 - accuracy: 0.9297 - val_loss: 0.0541 - val_accuracy: 0.9820</div> <div>Epoch 3/5</div> <div>148/148 [=====] - 472s 3s/step - loss: 0.1160 - accuracy: 0.9595 - val_loss: 0.0354 - val_accuracy: 0.9903</div> <div>Epoch 4/5</div> <div>148/148 [=====] - 389s 3s/step - loss: 0.0769 - accuracy: 0.9734 - val_loss: 0.0117 - val_accuracy: 0.9964</div> <div>Epoch 5/5</div> <div>148/148 [=====] - 205s 1s/step - loss: 0.0564 - accuracy: 0.9802 - val_loss: 0.0077 - val_accuracy: 0.9984</div>
3.	Confidence Score (Only Yolo Projects)	<div>Class Detected -</div> <div>Confidence Score -</div>	