

Project Development Phase
Model Performance Test

Date	18 November 2022
Team ID	PNT2022TMID23190
Project Name	Deep learning Fundus image analysis for early detection of Diabetic Retinopathy
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	-	<pre>[] model.summary() Model : "model"</pre> <p>Model: "model"</p> <table> <thead> <tr> <th>Layer (type)</th><th>Output Shape</th><th>Param #</th><th>Connected to</th></tr> </thead> <tbody> <tr> <td>input_1 (InputLayer)</td><td>[(None, 299, 299, 3)]</td><td>0</td><td>[]</td></tr> <tr> <td>block1_conv1 (Conv2D)</td><td>(None, 149, 149, 32)</td><td>864</td><td>['input_1[0][0]']</td></tr> <tr> <td>block1_conv1_bn (BatchNormaliz ation)</td><td>(None, 149, 149, 32)</td><td>128</td><td>['block1_conv1[0][0]']</td></tr> <tr> <td>block1_conv1_act (Activation)</td><td>(None, 149, 149, 32)</td><td>0</td><td>['block1_conv1_bn[0][0]']</td></tr> <tr> <td>block1_conv2 (Conv2D)</td><td>(None, 147, 147, 64)</td><td>18432</td><td>['block1_conv1_act[0][0]']</td></tr> <tr> <td>block1_conv2_bn (BatchNormaliz ation)</td><td>(None, 147, 147, 64)</td><td>256</td><td>['block1_conv2[0][0]']</td></tr> <tr> <td>block1_conv2_act (Activation)</td><td>(None, 147, 147, 64)</td><td>0</td><td>['block1_conv2_bn[0][0]']</td></tr> <tr> <td>block2_sepconv1 (SeparableConv 2D)</td><td>(None, 147, 147, 12)</td><td>8768</td><td>['block1_conv2_act[0][0]']</td></tr> </tbody> </table> <p>=====</p> <p>Total params: 21,885,485 Trainable params: 1,024,005 Non-trainable params: 20,861,480</p>	Layer (type)	Output Shape	Param #	Connected to	input_1 (InputLayer)	[(None, 299, 299, 3)]	0	[]	block1_conv1 (Conv2D)	(None, 149, 149, 32)	864	['input_1[0][0]']	block1_conv1_bn (BatchNormaliz ation)	(None, 149, 149, 32)	128	['block1_conv1[0][0]']	block1_conv1_act (Activation)	(None, 149, 149, 32)	0	['block1_conv1_bn[0][0]']	block1_conv2 (Conv2D)	(None, 147, 147, 64)	18432	['block1_conv1_act[0][0]']	block1_conv2_bn (BatchNormaliz ation)	(None, 147, 147, 64)	256	['block1_conv2[0][0]']	block1_conv2_act (Activation)	(None, 147, 147, 64)	0	['block1_conv2_bn[0][0]']	block2_sepconv1 (SeparableConv 2D)	(None, 147, 147, 12)	8768	['block1_conv2_act[0][0]']
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2.	Accuracy	Training Accuracy – 0.7812 Validation Accuracy -0.7547	Epoch 49/50 3/3 [=====] - 55s 18s/step - loss: 4.7070 - accuracy: 0.6146 Epoch 50/50 3/3 [=====] - 49s 15s/step - loss: 2.7252 - accuracy: 0.7812																																				

			<div><div>3/3 [] - 348s 163s/step - loss: 0.8414 - categorical_accuracy: 0.6771 - val_loss: 0.7021 - val_categorical_accuracy: 0.7500 Epoch 48/50 3/3 [] - 345s 160s/step - loss: 1.2077 - categorical_accuracy: 0.6667 - val_loss: 0.8575 - val_categorical_accuracy: 0.7141 Epoch 49/50 3/3 [] - 346s 162s/step - loss: 1.1173 - categorical_accuracy: 0.6771 - val_loss: 0.8531 - val_categorical_accuracy: 0.7328 Epoch 50/50 3/3 [] - 343s 162s/step - loss: 0.6473 - categorical_accuracy: 0.7700 - val_loss: 0.7041 - val_categorical_accuracy: 0.7547</div></div>
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