

## Project Development Phase Model Performance Test

Date	10 November 2022
Team ID	609691
Project Name	Deep Learning Model For Eye Disease Prediction
Maximum Marks	10 Marks

### Model Performance Testing:

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

S.No.	Parameter	Values	Screenshot																																								
1.	Metrics	<b>Classification Model:</b> Accuray Score- & Classification Report -	<pre>print(classification_report(y_test,y_pred,target_names = labels))</pre> <table><thead><tr><th></th><th>precision</th><th>recall</th><th>f1-score</th><th>support</th></tr></thead><tbody><tr><td>cataract</td><td>0.91</td><td>0.83</td><td>0.87</td><td>221</td></tr><tr><td>diabetic_retinopathy</td><td>0.97</td><td>1.00</td><td>0.98</td><td>215</td></tr><tr><td>glaucoma</td><td>0.85</td><td>0.72</td><td>0.78</td><td>194</td></tr><tr><td>normal</td><td>0.75</td><td>0.90</td><td>0.82</td><td>213</td></tr><tr><td>accuracy</td><td></td><td></td><td>0.87</td><td>843</td></tr><tr><td>macro avg</td><td>0.87</td><td>0.86</td><td>0.86</td><td>843</td></tr><tr><td>weighted avg</td><td>0.87</td><td>0.87</td><td>0.87</td><td>843</td></tr></tbody></table> <pre># fitting the model his = model.fit(train_data, validation_data=valid_data, epochs=15)</pre> <pre>Epoch 1/15 106/106 [=====] - 110s 1s/step - loss: 0.9138 - accuracy: 0.6079 - val_loss: 0.6640 - val_accuracy: 0.7580 Epoch 2/15 106/106 [=====] - 77s 726ms/step - loss: 0.5845 - accuracy: 0.7653 - val_loss: 0.5673 - val_accuracy: 0.7877 Epoch 3/15 106/106 [=====] - 76s 717ms/step - loss: 0.4858 - accuracy: 0.8085 - val_loss: 0.5356 - val_accuracy: 0.7972 Epoch 4/15 106/106 [=====] - 74s 697ms/step - loss: 0.4282 - accuracy: 0.8317 - val_loss: 0.5024 - val_accuracy: 0.7912 Epoch 5/15 106/106 [=====] - 75s 704ms/step - loss: 0.3676 - accuracy: 0.8566 - val_loss: 0.4381 - val_accuracy: 0.8339 Epoch 6/15 106/106 [=====] - 73s 686ms/step - loss: 0.3090 - accuracy: 0.8752 - val_loss: 0.4101 - val_accuracy: 0.8422 Epoch 7/15 106/106 [=====] - 72s 676ms/step - loss: 0.2777 - accuracy: 0.8886 - val_loss: 0.4151 - val_accuracy: 0.8517 Epoch 8/15 106/106 [=====] - 72s 673ms/step - loss: 0.2212 - accuracy: 0.9075 - val_loss: 0.4141 - val_accuracy: 0.8529 Epoch 9/15 106/106 [=====] - 71s 672ms/step - loss: 0.1969 - accuracy: 0.9226 - val_loss: 0.4268 - val_accuracy: 0.8600 Epoch 10/15 106/106 [=====] - 72s 674ms/step - loss: 0.1770 - accuracy: 0.9303 - val_loss: 0.4734 - val_accuracy: 0.8387 Epoch 11/15 106/106 [=====] - 72s 677ms/step - loss: 0.1404 - accuracy: 0.9455 - val_loss: 0.5226 - val_accuracy: 0.8399 Epoch 12/15 106/106 [=====] - 72s 677ms/step - loss: 0.1168 - accuracy: 0.9547 - val_loss: 0.5635 - val_accuracy: 0.8517 Epoch 13/15 106/106 [=====] - 74s 692ms/step - loss: 0.0962 - accuracy: 0.9686 - val_loss: 0.7077 - val_accuracy: 0.8316 Epoch 14/15 106/106 [=====] - 72s 677ms/step - loss: 0.1678 - accuracy: 0.9386 - val_loss: 0.5145 - val_accuracy: 0.8327 Epoch 15/15 106/106 [=====] - 73s 687ms/step - loss: 0.0924 - accuracy: 0.9647 - val_loss: 0.5919 - val_accuracy: 0.8660</pre>		precision	recall	f1-score	support	cataract	0.91	0.83	0.87	221	diabetic_retinopathy	0.97	1.00	0.98	215	glaucoma	0.85	0.72	0.78	194	normal	0.75	0.90	0.82	213	accuracy			0.87	843	macro avg	0.87	0.86	0.86	843	weighted avg	0.87	0.87	0.87	843
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