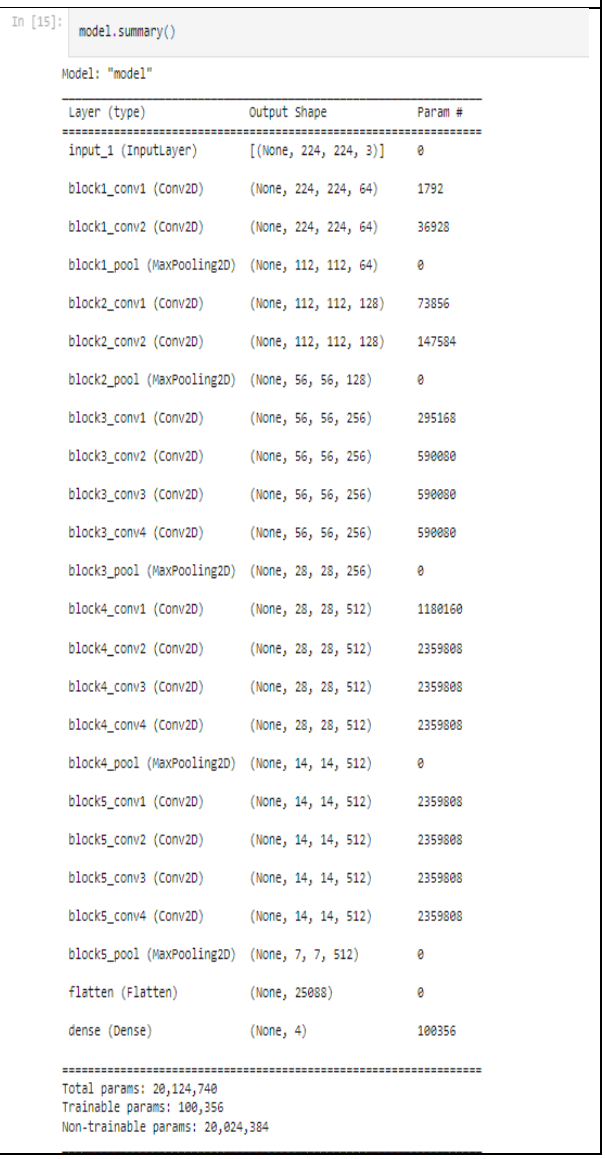
Project Development Phase
Model Performance Test

Date	10 November 2022
Team ID	Team-593093
Project Name	Project – Eye Disease Prediction Using Deep Learning Project
Maximum Marks	10 Marks

S.No.	Parameter	Values	Screenshot
1.	Model Summary	Total params: 20,124,740 Trainable params: 100,356 Non-trainable params: 20,024,384	

```
In [15]: model.summary()

Model: "model"
_________________________________________________________________
Layer (type)                 Output Shape              Param #
=================================================================
input_1 (InputLayer)         [(None, 224, 224, 3)]     0

block1_conv1 (Conv2D)        (None, 224, 224, 64)      1792

block1_conv2 (Conv2D)        (None, 224, 224, 64)      36928

block1_pool (MaxPooling2D)   (None, 112, 112, 64)      0

block2_conv1 (Conv2D)        (None, 112, 112, 128)     73856

block2_conv2 (Conv2D)        (None, 112, 112, 128)     147584

block2_pool (MaxPooling2D)   (None, 56, 56, 128)       0

block3_conv1 (Conv2D)        (None, 56, 56, 256)       295168

block3_conv2 (Conv2D)        (None, 56, 56, 256)       590080

block3_conv3 (Conv2D)        (None, 56, 56, 256)       590080

block3_conv4 (Conv2D)        (None, 56, 56, 256)       590080

block3_pool (MaxPooling2D)   (None, 28, 28, 256)       0

block4_conv1 (Conv2D)        (None, 28, 28, 512)       1180160

block4_conv2 (Conv2D)        (None, 28, 28, 512)       2359808

block4_conv3 (Conv2D)        (None, 28, 28, 512)       2359808

block4_conv4 (Conv2D)        (None, 28, 28, 512)       2359808

block4_pool (MaxPooling2D)   (None, 14, 14, 512)       0

block5_conv1 (Conv2D)        (None, 14, 14, 512)       2359808

block5_conv2 (Conv2D)        (None, 14, 14, 512)       2359808

block5_conv3 (Conv2D)        (None, 14, 14, 512)       2359808

block5_conv4 (Conv2D)        (None, 14, 14, 512)       2359808

block5_pool (MaxPooling2D)   (None, 7, 7, 512)         0

flatten (Flatten)            (None, 25088)             0

dense (Dense)                (None, 4)                 100356

=================================================================
Total params: 20,124,740
Trainable params: 100,356
Non-trainable params: 20,024,384
_________________________________________________________________
```

2.	Accuracy	Training Accuracy - 0.8983 Validation Accuracy -0.8130	In [17]: `history=model.fit(trainset,validation_data=testset,epochs=50,steps_per_epoch=len(trainset),validation_steps=len(testset))` Epoch 1/50 53/53 [==============================] - 91s 1s/step - loss: 1.0787 - accuracy: 0.6189 - val_loss: 0.6005 - val_accuracy: 0.76 45 Epoch 2/50 53/53 [==============================] - 69s 1s/step - loss: 0.5714 - accuracy: 0.7767 - val_loss: 0.6958 - val_accuracy: 0.69 94 Epoch 3/50 53/53 [==============================] - 68s 1s/step - loss: 0.5256 - accuracy: 0.7933 - val_loss: 0.5036 - val_accuracy: 0.82 13 Epoch 4/50 53/53 [==============================] - 67s 1s/step - loss: 0.4917 - accuracy: 0.7951 - val_loss: 0.6498 - val_accuracy: 0.74 08 Epoch 5/50 53/53 [==============================] - 67s 1s/step - loss: 0.4712 - accuracy: 0.8149 - val_loss: 0.5934 - val_accuracy: 0.76 45 Epoch 6/50 53/53 [==============================] - 67s 1s/step - loss: 0.4310 - accuracy: 0.8301 - val_loss: 0.5497 - val_accuracy: 0.77 51 Epoch 7/50 53/53 [==============================] - 67s 1s/step - loss: 0.4203 - accuracy: 0.8351 - val_loss: 0.4655 - val_accuracy: 0.81 89 Epoch 8/50 53/53 [==============================] - 66s 1s/step - loss: 0.5172 - accuracy: 0.7963 - val_loss: 0.5633 - val_accuracy: 0.77 28 Epoch 9/50 53/53 [==============================] - 66s 1s/step - loss: 0.4127 - accuracy: 0.8324 - val_loss: 0.4334 - val_accuracy: 0.84 02 Epoch 10/50 53/53 [==============================] - 67s 1s/step - loss: 0.4135 - accuracy: 0.8363 - val_loss: 0.4537 - val_accuracy: 0.84 62 Epoch 11/50 53/53 [==============================] - 67s 1s/step - loss: 0.4090 - accuracy: 0.8405 - val_loss: 0.4435 - val_accuracy: 0.82 60 Epoch 12/50 53/53 [==============================] - 67s 1s/step - loss: 0.3721 - accuracy: 0.8493 - val_loss: 0.5505 - val_accuracy: 0.79 29 Epoch 13/50 53/53 [==============================] - 67s 1s/step - loss: 0.3483 - accuracy: 0.8591 - val_loss: 0.4632 - val_accuracy: 0.83 43 Epoch 14/50 53/53 [==============================] - 67s 1s/step - loss: 0.3573 - accuracy: 0.8559 - val_loss: 0.4453 - val_accuracy: 0.83 67 Epoch 15/50 53/53 [==============================] - 67s 1s/step - loss: 0.3588 - accuracy: 0.8514 - val_loss: 0.4199 - val_accuracy: 0.84 62 Epoch 16/50 53/53 [==============================] - 67s 1s/step - loss: 0.3258 - accuracy: 0.8692 - val_loss: 0.6269 - val_accuracy: 0.75 74 Epoch 17/50 53/53 [==============================] - 67s 1s/step - loss: 0.3678 - accuracy: 0.8482 - val_loss: 0.4263 - val_accuracy: 0.84 14 Epoch 18/50 53/53 [==============================] - 67s 1s/step - loss: 0.3512 - accuracy: 0.8633 - val_loss: 0.3987 - val_accuracy: 0.85 68 Epoch 32/50 53/53 [==============================] - 65s 1s/step - loss: 0.2917 - accuracy: 0.8823 - val_loss: 0.5970 - val_accuracy: 0.76 80 Epoch 33/50 53/53 [==============================] - 65s 1s/step - loss: 0.3805 - accuracy: 0.8514 - val_loss: 0.3609 - val_accuracy: 0.87 57 Epoch 34/50 53/53 [==============================] - 66s 1s/step - loss: 0.3198 - accuracy: 0.8760 - val_loss: 0.3978 - val_accuracy: 0.86 04 Epoch 35/50 53/53 [==============================] - 67s 1s/step - loss: 0.2961 - accuracy: 0.8805 - val_loss: 0.5506 - val_accuracy: 0.81 42 Epoch 36/50 53/53 [==============================] - 66s 1s/step - loss: 0.2692 - accuracy: 0.8921 - val_loss: 0.5955 - val_accuracy: 0.78 82 Epoch 37/50 53/53 [==============================] - 65s 1s/step - loss: 0.3054 - accuracy: 0.8763 - val_loss: 0.3774 - val_accuracy: 0.87 34 Epoch 38/50 53/53 [==============================] - 67s 1s/step - loss: 0.2613 - accuracy: 0.8953 - val_loss: 0.3771 - val_accuracy: 0.86 75 Epoch 39/50 53/53 [==============================] - 66s 1s/step - loss: 0.2670 - accuracy: 0.8918 - val_loss: 0.5199 - val_accuracy: 0.80 47 Epoch 40/50 53/53 [==============================] - 65s 1s/step - loss: 0.3260 - accuracy: 0.8698 - val_loss: 0.4162 - val_accuracy: 0.86 04 Epoch 41/50 53/53 [==============================] - 66s 1s/step - loss: 0.2852 - accuracy: 0.8823 - val_loss: 0.4423 - val_accuracy: 0.85 21 Epoch 42/50 53/53 [==============================] - 66s 1s/step - loss: 0.2588 - accuracy: 0.8995 - val_loss: 0.4975 - val_accuracy: 0.84 14 Epoch 43/50 53/53 [==============================] - 66s 1s/step - loss: 0.2876 - accuracy: 0.8873 - val_loss: 0.3928 - val_accuracy: 0.87 69 Epoch 44/50 53/53 [==============================] - 66s 1s/step - loss: 0.2659 - accuracy: 0.8977 - val_loss: 0.4968 - val_accuracy: 0.82 60 Epoch 45/50 53/53 [==============================] - 65s 1s/step - loss: 0.2979 - accuracy: 0.8835 - val_loss: 0.5791 - val_accuracy: 0.81 07 Epoch 46/50 53/53 [==============================] - 66s 1s/step - loss: 0.2894 - accuracy: 0.8891 - val_loss: 0.4767 - val_accuracy: 0.84 97 Epoch 47/50 53/53 [==============================] - 66s 1s/step - loss: 0.2589 - accuracy: 0.9007 - val_loss: 0.3831 - val_accuracy: 0.87 69 Epoch 48/50 53/53 [==============================] - 66s 1s/step - loss: 0.2543 - accuracy: 0.9001 - val_loss: 0.4896 - val_accuracy: 0.82 96 Epoch 49/50 53/53 [==============================] - 66s 1s/step - loss: 0.2654 - accuracy: 0.8959 - val_loss: 0.3568 - val_accuracy: 0.86 98 Epoch 50/50 53/53 [==============================] - 66s 1s/step - loss: 0.2505 - accuracy: 0.8983 - val_loss: 0.5416 - val_accuracy: 0.81 30