

**Project Development Phase  
Model Performance Test**

Date	10 November 2022
Team ID	PNT2022TMID35185
Project Name	Digital Naturalist - AI Enabled tool for Biodiversity Researchers
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.	Model Summary	<b>Total params: 9,283,727</b> <b>Trainable params: 9,283,727</b> <b>Non-trainable params: 0</b>	1
2.	Accuracy	Training Accuracy - 0.9992  Validation Accuracy - 0.7829	2

Screenshot 1:

Model: "sequential"

Layer (type)	Output Shape	Param #
=====		
conv2d (Conv2D)	(None, 62, 62, 32)	896
max_pooling2d (MaxPooling2D)	(None, 31, 31, 32)	0
flatten (Flatten)	(None, 30752)	0
dense (Dense)	(None, 300)	9225900
dense_1 (Dense)	(None, 150)	45150
dense_2 (Dense)	(None, 75)	11325
dense_3 (Dense)	(None, 6)	456
=====		
Total params: 9,283,727		
Trainable params: 9,283,727		
Non-trainable params: 0		

## Screenshot 2:

```
model.fit(x_train, steps_per_epoch=len(x_train), epochs=30, validation_data=x_val, validation_steps=len(x_val))
```

```
Epoch 1/30
52/52 [=====] - 14s 114ms/step - loss: 93.6508 - accuracy: 0.3989 - val_loss: 3.5097 - val_accuracy: 0.6184
Epoch 2/30
52/52 [=====] - 5s 95ms/step - loss: 1.7948 - accuracy: 0.7872 - val_loss: 2.1069 - val_accuracy: 0.6711
Epoch 3/30
52/52 [=====] - 5s 94ms/step - loss: 1.0658 - accuracy: 0.9377 - val_loss: 1.9780 - val_accuracy: 0.7368
Epoch 4/30
52/52 [=====] - 5s 96ms/step - loss: 0.9061 - accuracy: 0.9765 - val_loss: 1.7944 - val_accuracy: 0.7697
Epoch 5/30
52/52 [=====] - 6s 107ms/step - loss: 0.8845 - accuracy: 0.9814 - val_loss: 2.2730 - val_accuracy: 0.7303
Epoch 6/30
52/52 [=====] - 5s 94ms/step - loss: 0.9360 - accuracy: 0.9676 - val_loss: 2.0517 - val_accuracy: 0.7566
Epoch 7/30
52/52 [=====] - 5s 95ms/step - loss: 0.8148 - accuracy: 0.9927 - val_loss: 1.7352 - val_accuracy: 0.7697
Epoch 8/30
52/52 [=====] - 5s 97ms/step - loss: 0.7855 - accuracy: 0.9968 - val_loss: 1.8367 - val_accuracy: 0.7895
Epoch 9/30
52/52 [=====] - 5s 99ms/step - loss: 0.7522 - accuracy: 0.9992 - val_loss: 1.8143 - val_accuracy: 0.7829
Epoch 10/30
52/52 [=====] - 5s 94ms/step - loss: 0.7307 - accuracy: 1.0000 - val_loss: 1.8237 - val_accuracy: 0.7829
Epoch 11/30
52/52 [=====] - 5s 94ms/step - loss: 0.7101 - accuracy: 1.0000 - val_loss: 1.8286 - val_accuracy: 0.7829
```