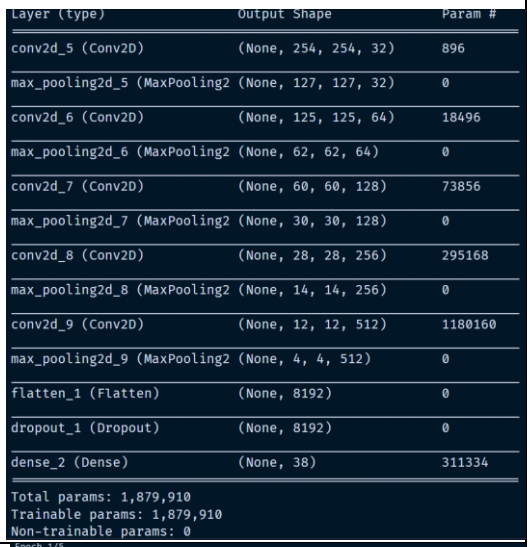
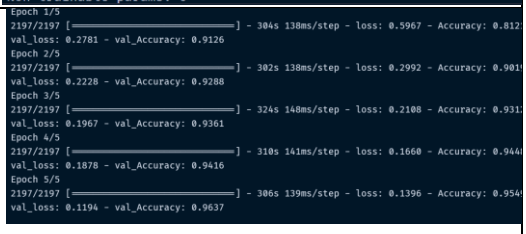
Project Development Phase
Model Performance Test

Date	12 November 2022
Team ID	PNT2022TMID35945
Project Name	Fertilizers Recommendation System for Disease Prediction
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	Total params: 1,879,910 Trainable params: 1,879,910 Non-trainable params: 0	
2.	Accuracy	Training Accuracy – 95.49 Validation Accuracy – 96.37 Epochs - 5	

Model Summary

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Layer (type)                 Output Shape              Param #
=================================================================
conv2d_5 (Conv2D)            (None, 254, 254, 32)      896
_________________________________________________________________
max_pooling2d_5 (MaxPooling2 (None, 127, 127, 32)      0
_________________________________________________________________
conv2d_6 (Conv2D)            (None, 125, 125, 64)      18496
_________________________________________________________________
max_pooling2d_6 (MaxPooling2 (None, 62, 62, 64)        0
_________________________________________________________________
conv2d_7 (Conv2D)            (None, 60, 60, 128)       73856
_________________________________________________________________
max_pooling2d_7 (MaxPooling2 (None, 30, 30, 128)       0
_________________________________________________________________
conv2d_8 (Conv2D)            (None, 28, 28, 256)       295168
_________________________________________________________________
max_pooling2d_8 (MaxPooling2 (None, 14, 14, 256)       0
_________________________________________________________________
conv2d_9 (Conv2D)            (None, 12, 12, 512)       1180160
_________________________________________________________________
max_pooling2d_9 (MaxPooling2 (None, 4, 4, 512)         0
_________________________________________________________________
flatten_1 (Flatten)          (None, 8192)              0
_________________________________________________________________
dropout_1 (Dropout)          (None, 8192)              0
_________________________________________________________________
dense_2 (Dense)              (None, 38)                311334
=================================================================
Total params: 1,879,910
Trainable params: 1,879,910
Non-trainable params: 0
```

Accuracy

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Epoch 1/5
2197/2197 [==============================] - 304s 138ms/step - loss: 0.5967 - Accuracy: 0.8121 -
val_loss: 0.2781 - val_Accuracy: 0.9126
Epoch 2/5
2197/2197 [==============================] - 302s 138ms/step - loss: 0.2992 - Accuracy: 0.9019 -
val_loss: 0.2228 - val_Accuracy: 0.9288
Epoch 3/5
2197/2197 [==============================] - 324s 148ms/step - loss: 0.2108 - Accuracy: 0.9312 -
val_loss: 0.1967 - val_Accuracy: 0.9361
Epoch 4/5
2197/2197 [==============================] - 310s 141ms/step - loss: 0.1660 - Accuracy: 0.9448 -
val_loss: 0.1878 - val_Accuracy: 0.9416
Epoch 5/5
2197/2197 [==============================] - 306s 139ms/step - loss: 0.1396 - Accuracy: 0.9549 -
val_loss: 0.1194 - val_Accuracy: 0.9637
```