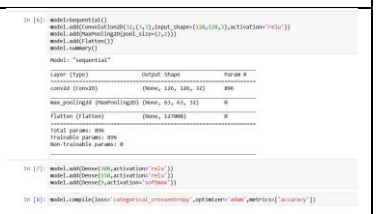
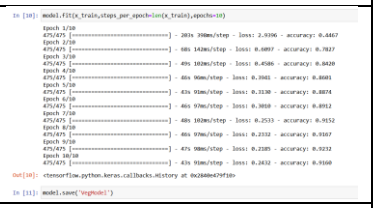
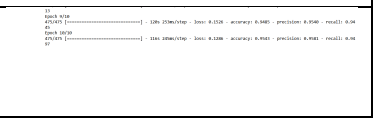
Project Development Phase
Model Performance Test

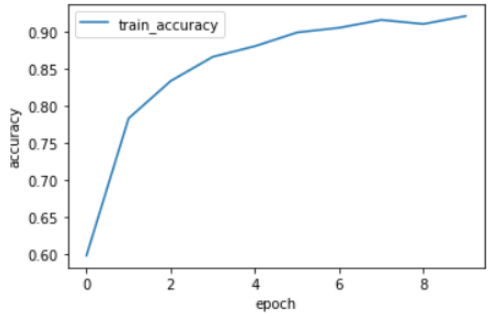
Date	10 November 2022
Team ID	PNT2022TMID52715
Project Name	Project - Fertilizers Recommendation System For Disease Prediction
Maximum Marks	10 Marks

Model Performance Testing:

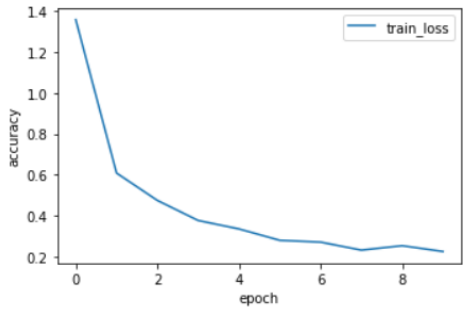
Project team shall fill the following information in model performance testing template.

S.No.	Parameter	Values	Screenshot
1.	Model Summary	Model: "sequential" Layer (type) conv2d (Conv2D) (None, 126, 126, 32) 896 max_pooling2d (MaxPooling2D) (None, 63, 63, 32) 0 flatten (Flatten) (None, 127008) 0 Total params: 896 Trainable params: 896 Non-trainable params: 0	
2.	Accuracy	Training Accuracy - 91 % Validation Accuracy – 86 %	
3.	Confidence Score (Only Yolo Projects)	Class Detected - Confidence Score -	
4	Precision and Recall	Precision – 0.95 Recall – 0.94 F1 Score	

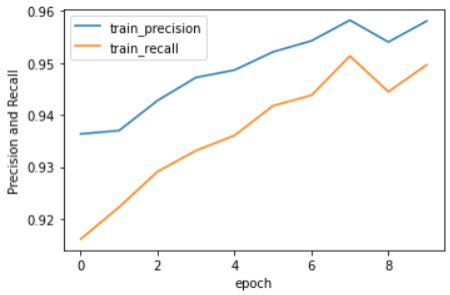
Accuracy Graph:



Loss Graph:



Precision and Recall Graph:



F1 Score, Precision and Recall Value

```
13
Epoch 9/10
475/475 [==============================] - 120s 253ms/step - loss: 0.1526 - accuracy: 0.9485 - precision: 0.9540 - recall: 0.94
45
Epoch 10/10
475/475 [==============================] - 116s 245ms/step - loss: 0.1286 - accuracy: 0.9543 - precision: 0.9581 - recall: 0.94
97

INFO:tensorflow:Assets written to: VegModel\ass
```

```
In [2]: F1score = (2*0.9581*0.94) / (0.9581 + 0.94)
        print("The F1 Score is ", F1score)

        The F1 Score is  0.9489637005426479
```