**Project Development Phase**
**Model Performance Test**

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| Date | 15 November 2022 |
| Team ID | PNT2022TMID03970 |
| Project Name | Project – Fertilizer 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: 2,257,984<br>-Trainable params: 2,223,872<br>-Non-trainable params: 34,112 | Fruit and Vegetable disease prediction Model (MobileNetV2)<br>block_16_project_BN (BatchNorma (None, 7, 7, 320) 1280 block_16_project[0][0]<br>Conv_1 (Conv2D) (None, 7, 7, 1280) 409600 block_16_project_BN[0][0]<br>Conv_1_bn (BatchNormalization) (None, 7, 7, 1280) 5120 Conv_1[0][0]<br>out_relu (ReLU) (None, 7, 7, 1280) 0 Conv_1_bn[0][0]<br>Total params: 2,257,984<br>Trainable params: 2,223,872<br>Non-trainable params: 34,112<br>None |
| 2. | Accuracy | **Training Accuracy -**<br>-Fruit disease prediction 82.67%<br>-Vegetable disease prediction 69.16%<br>**Validation Accuracy –**<br>-Fruit disease prediction 85.35%<br>-Vegetable disease prediction 68.68% | Fruit disease prediction Model & vegetable disease prediction model<br>Epoch 1/3<br>54/54 [==========] - 309s 6s/step - loss: 1.3279 - acc: 0.5433 - val_loss: 0.6847 - val_acc: 0.7509<br>Epoch 2/3<br>54/54 [==========] - 260s 5s/step - loss: 0.6325 - acc: 0.7608 - val_loss: 0.4549 - val_acc: 0.8505<br>Epoch 3/3<br>54/54 [==========] - 261s 5s/step - loss: 0.4720 - acc: 0.8267 - val_loss: 0.4060 - val_acc: 0.8535<br>model.evaluate(validation_generator)<br>17/17 [==========] - 18s 1s/step - loss: 0.4060 - acc: 0.8535<br>[0.4059935510158539, 0.8534994125366211]<br>Epoch 1/3<br>114/114 [==========] - 725s 6s/step - loss: 1.6395 - acc: 0.4327 - val_loss: 1.5322 - val_acc: 0.4895<br>Epoch 2/3<br>114/114 [==========] - 590s 5s/step - loss: 1.1031 - acc: 0.6197 - val_loss: 1.1993 - val_acc: 0.5864<br>Epoch 3/3<br>114/114 [==========] - 558s 5s/step - loss: 0.8879 - acc: 0.6916 - val_loss: 0.9358 - val_acc: 0.6868<br>model.evaluate(validation_generator)<br>35/35 [==========] - 38s 1s/step - loss: 0.9358 - acc: 0.6868<br>[0.9357589483261108, 0.6867681741714478] |