Project Development Phase
Model Performance Test

Date	21 November 2022
Team ID	PNT2022TMID15084
Project Name	Project - Real-Time Communication System Powered by AI for Specially Abled
Maximum Marks	10 Marks

Model Performance Testing:

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

S.No.	Parameter	Values
1.	Model Summary	Total params: 15,750,473 Trainable params: 15,750,473 Non-trainable params: 0
2.	Accuracy	Training Accuracy – 99.91% Validation Accuracy -97.67%

Screenshot:

1. Model Summary

```
Model: "sequential"
_____
Layer (type)                 Output Shape              Param #
=================================================================
conv2d (Conv2D)              (None, 62, 62, 32)        320

max_pooling2d (MaxPooling2D  (None, 31, 31, 32)        0
)

flatten (Flatten)            (None, 30752)             0

dense (Dense)                (None, 512)               15745536

dense_1 (Dense)              (None, 9)                 4617

=================================================================
Total params: 15,750,473
Trainable params: 15,750,473
Non-trainable params: 0
_____
```

2. Accuracy

```
/usr/local/lib/python3.7/dist-packages/ipykernel_launcher.py:2: UserWarning: `Model.fit_generator` is deprecated and will be removed in a future versio

Epoch 1/10
18/18 [==============================] - 97s 5s/step - loss: 0.0055 - accuracy: 0.9991 - val_loss: 0.2245 - val_accuracy: 0.9760
Epoch 2/10
18/18 [==============================] - 86s 5s/step - loss: 0.0044 - accuracy: 0.9994 - val_loss: 0.2355 - val_accuracy: 0.9760
Epoch 3/10
18/18 [==============================] - 85s 5s/step - loss: 0.0032 - accuracy: 0.9996 - val_loss: 0.2541 - val_accuracy: 0.9756
Epoch 4/10
18/18 [==============================] - 88s 5s/step - loss: 0.0034 - accuracy: 0.9997 - val_loss: 0.2707 - val_accuracy: 0.9760
Epoch 5/10
18/18 [==============================] - 86s 5s/step - loss: 0.0030 - accuracy: 0.9997 - val_loss: 0.2608 - val_accuracy: 0.9760
Epoch 6/10
18/18 [==============================] - 85s 5s/step - loss: 0.0031 - accuracy: 0.9994 - val_loss: 0.2538 - val_accuracy: 0.9760
Epoch 7/10
18/18 [==============================] - 84s 5s/step - loss: 0.0028 - accuracy: 0.9993 - val_loss: 0.2577 - val_accuracy: 0.9760
Epoch 8/10
18/18 [==============================] - 86s 5s/step - loss: 0.0026 - accuracy: 0.9997 - val_loss: 0.2712 - val_accuracy: 0.9760
Epoch 9/10
18/18 [==============================] - 83s 4s/step - loss: 0.0022 - accuracy: 0.9996 - val_loss: 0.2839 - val_accuracy: 0.9778
Epoch 10/10
18/18 [==============================] - 83s 5s/step - loss: 0.0014 - accuracy: 0.9999 - val_loss: 0.2773 - val_accuracy: 0.9760
<keras.callbacks.History at 0x7f6ff9335350>
```