Project Development Phase
Model Performance Test

Date	17 November 2022
Team ID	PNT2022TMID04184
Project Name	Project – Real Time Communication Powered by AI for Specially Abled
Maximum Marks	10 Marks

Model Performance Testing:

S.NO	Parameter	Values	Screenshot
1.	Model Summary	**Total params**:1,103,721 **Trainableparams**:1,103,721 **Non-trainable params**: 0	Model: "sequential" Layer (type) Output Shape Param # conv2d (Conv2D) (None, 62, 62, 32) 320 max_pooling2d (MaxPooling2D (None, 31, 31, 32) 0) conv2d_1 (Conv2D) (None, 29, 29, 512) 147968 max_pooling2d_1 (MaxPooling (None, 14, 14, 512) 0 2D) conv2d_2 (Conv2D) (None, 14, 14, 32) 147488 max_pooling2d_2 (MaxPooling (None, 7, 7, 32) 0 2D) flatten (Flatten) (None, 1568) 0 dense (Dense) (None, 512) 803328 dense_1 (Dense) (None, 9) 4617 Total params: 1,103,721 Trainable params: 1,103,721 Non-trainable params: 0

2.	Accuracy	**Training Accuracy** - 0.9987 **Validation Accuracy** -0.9782	

```
# Fitting the Model Generator
model.fit_generator(x_train,steps_per_epoch=len(x_train),epochs=10,validation_data=x_test,validation_steps=len(x_test))
```

```
/tmp/wsuser/ipykernel_164/1042518445.py:2: UserWarning: `Model.fit_generator` is deprecated and will be removed in a future version. Please use `Model.fit`, which supports generators.
  model.fit_generator(x_train,steps_per_epoch=len(x_train),epochs=10,validation_data=x_test,validation_steps=len(x_test))
Epoch 1/10
18/18 [==============================] - 71s 4s/step - loss: 1.1343 - accuracy: 0.6152 - val_loss: 0.4147 - val_accuracy: 0.9058
Epoch 2/10
18/18 [==============================] - 69s 4s/step - loss: 0.2602 - accuracy: 0.9239 - val_loss: 0.2582 - val_accuracy: 0.9320
Epoch 3/10
18/18 [==============================] - 71s 4s/step - loss: 0.1165 - accuracy: 0.9669 - val_loss: 0.2227 - val_accuracy: 0.9587
Epoch 4/10
18/18 [==============================] - 72s 4s/step - loss: 0.0610 - accuracy: 0.9846 - val_loss: 0.2374 - val_accuracy: 0.9698
Epoch 5/10
18/18 [==============================] - 73s 4s/step - loss: 0.0357 - accuracy: 0.9902 - val_loss: 0.2313 - val_accuracy: 0.9707
Epoch 6/10
18/18 [==============================] - 72s 4s/step - loss: 0.0265 - accuracy: 0.9939 - val_loss: 0.2498 - val_accuracy: 0.9756
Epoch 7/10
18/18 [==============================] - 71s 4s/step - loss: 0.0170 - accuracy: 0.9965 - val_loss: 0.2795 - val_accuracy: 0.9756
Epoch 8/10
18/18 [==============================] - 72s 4s/step - loss: 0.0119 - accuracy: 0.9977 - val_loss: 0.2573 - val_accuracy: 0.9769
Epoch 9/10
18/18 [==============================] - 72s 4s/step - loss: 0.0095 - accuracy: 0.9981 - val_loss: 0.2782 - val_accuracy: 0.9782
Epoch 10/10
18/18 [==============================] - 72s 4s/step - loss: 0.0075 - accuracy: 0.9987 - val_loss: 0.3134 - val_accuracy: 0.9764
```

3.	Confidence Score (Only Yolo Projects)	**Class Detected** – N/A **ConfidenceScore** –N/A	N/A