Project Development Phase
Model Performance Test

Date	20 November 2022
Team ID	PNT2022TMID26094
Project Name	Project - Real Time Communication Powered byAI for Specially Abled
Maximum Marks	10 Marks

Model Performance Testing:

S.No.	Parameter	Values	Screenshot

1.	Model Summary	Model - Sequential model
		Layers:
		Conv2D-(None,62,62,32)
		MaxPooling2D-(None,31,31,32)
		Flatten-(None,30752)
		Dense-(None,200)
		Dense_1 -(None,9)
			`model.summary()`
			`Model: "sequential"`
			`Layer (type) Output Shape Param #`
			`conv2d (Conv2D) (None, 62, 62, 32) 896`
			`max_pooling2d (MaxPooling2D) (None, 31, 31, 32) 0`
			`flatten (Flatten) (None, 30752) 0`
			`dense (Dense) (None, 200) 6150600`
			`dense_1 (Dense) (None, 9) 1809`
			`Total params: 6,153,305`
			`Trainable params: 6,153,305`
			`Non-trainable params: 0`

2.	Accuracy	Training Accuracy - 0.9622
		
		Validation Accuracy -0.9826
			`model.fit(x_train,epochs=10,validation_data=x_test,steps_per_epoch=len(x_train)//10,validation_steps=len(x_test))`
			`Epoch 1/10`
			`50/50 [==========] - 660s 13s/step - loss: 1.5022 - accuracy: 0.5087 - val_loss: 0.4575 - val_accuracy: 0.9652`
			`Epoch 2/10`
			`50/50 [==========] - 353s 7s/step - loss: 0.5874 - accuracy: 0.8087 - val_loss: 0.2121 - val_accuracy: 0.9575`
			`Epoch 3/10`
			`50/50 [==========] - 313s 6s/step - loss: 0.3571 - accuracy: 0.9007 - val_loss: 0.1109 - val_accuracy: 0.9758`
			`Epoch 4/10`
			`50/50 [==========] - 284s 6s/step - loss: 0.2742 - accuracy: 0.9147 - val_loss: 0.0974 - val_accuracy: 0.9739`
			`Epoch 5/10`
			`50/50 [==========] - 255s 5s/step - loss: 0.2381 - accuracy: 0.9293 - val_loss: 0.1118 - val_accuracy: 0.9758`
			`Epoch 6/10`
			`50/50 [==========] - 220s 4s/step - loss: 0.1931 - accuracy: 0.9393 - val_loss: 0.0749 - val_accuracy: 0.9758`
			`Epoch 7/10`
			`50/50 [==========] - 216s 4s/step - loss: 0.1990 - accuracy: 0.9353 - val_loss: 0.1006 - val_accuracy: 0.9797`
			`Epoch 8/10`
			`50/50 [==========] - 187s 4s/step - loss: 0.1353 - accuracy: 0.9660 - val_loss: 0.0596 - val_accuracy: 0.9903`
			`Epoch 9/10`
			`50/50 [==========] - 160s 3s/step - loss: 0.1248 - accuracy: 0.9713 - val_loss: 0.2522 - val_accuracy: 0.8908`
			`Epoch 10/10`
			`50/50 [==========] - 149s 3s/step - loss: 0.1291 - accuracy: 0.9622 - val_loss: 0.0589 - val_accuracy: 0.9826`
			`<keras.callbacks.History at 0x7ff731bd7210>`

3	Confidence Score	Class Detected – N/A Confidence Score -N/A	N/A