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

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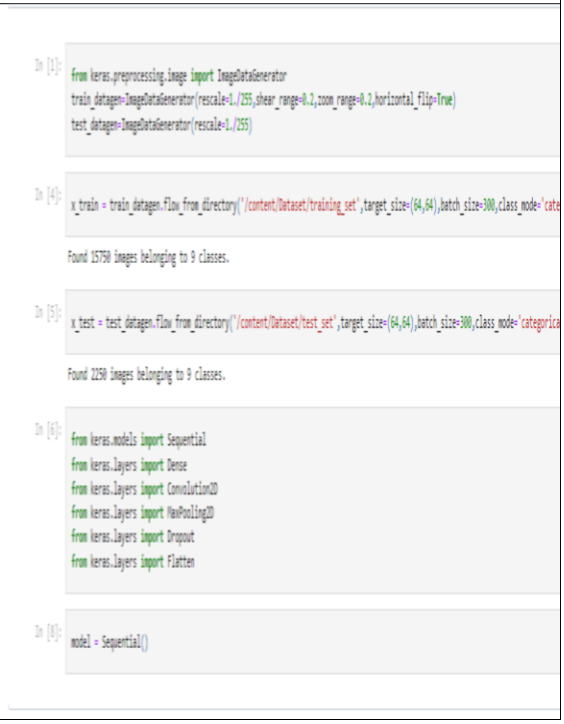
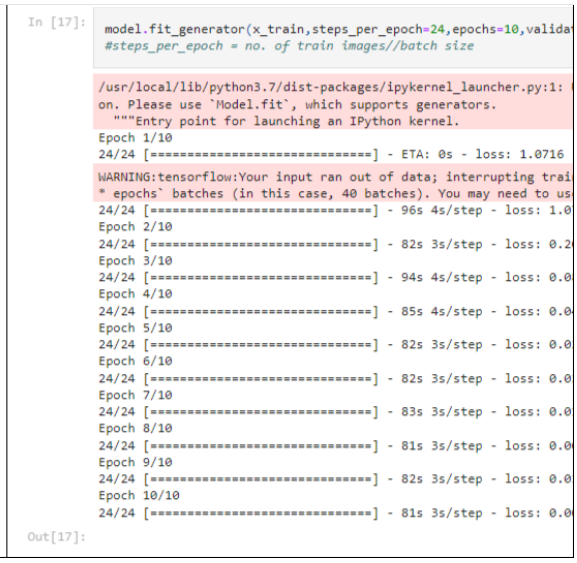
|---|---|
| Date | 18 November 2022 |
| Team ID | PNT2022TMID03512 |
| Project Name | Project – Real time communication system powered by AI for specially abled |
| Maximum Marks | 10 Marks |

**Model Performance Testing:**

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

| S.No. | Parameter | Values | Screenshot |
|---|---|---|---|
| 1. | Model Summary | |  |

```
In [1]: from keras.preprocessing.image import ImageDataGenerator
        train_datagen=ImageDataGenerator(rescale=1./255,shear_range=0.2,zoom_range=0.2,horizontal_flip=True)
        test_datagen=ImageDataGenerator(rescale=1./255)

In [4]: x_train = train_datagen.flow_from_directory('/content/Dataset/training_set',target_size=(64,64),batch_size=300,class_mode='cate

        Found 15750 images belonging to 9 classes.

In [5]: x_test = test_datagen.flow_from_directory('/content/Dataset/test_set',target_size=(64,64),batch_size=300,class_mode='categorica

        Found 1250 images belonging to 9 classes.

In [6]: from keras.models import Sequential
        from keras.layers import Dense
        from keras.layers import Convolution2D
        from keras.layers import MaxPooling2D
        from keras.layers import Dropout
        from keras.layers import Flatten

In [8]: model = Sequential()
```

| | | | |
|---|---|---|---|
| 2. | Accuracy | Training Accuracy – 99.6%<br><br>Validation Accuracy – 98.3% |  |

```
In [17]: model.fit_generator(x_train,steps_per_epoch=24,epochs=10,valida
         #steps_per_epoch = no. of train images//batch size

/usr/local/lib/python3.7/dist-packages/ipykernel_launcher.py:1:
on. Please use `Model.fit`, which supports generators.
  """Entry point for launching an IPython kernel.
Epoch 1/10
24/24 [==============================] - ETA: 0s - loss: 1.0716
WARNING:tensorflow:Your input ran out of data; interrupting trai
* epochs` batches (in this case, 40 batches). You may need to us
24/24 [==============================] - 96s 4s/step - loss: 1.0
Epoch 2/10
24/24 [==============================] - 82s 3s/step - loss: 0.2
Epoch 3/10
24/24 [==============================] - 94s 4s/step - loss: 0.0
Epoch 4/10
24/24 [==============================] - 85s 4s/step - loss: 0.0
Epoch 5/10
24/24 [==============================] - 82s 3s/step - loss: 0.0
Epoch 6/10
24/24 [==============================] - 82s 3s/step - loss: 0.0
Epoch 7/10
24/24 [==============================] - 83s 3s/step - loss: 0.0
Epoch 8/10
24/24 [==============================] - 81s 3s/step - loss: 0.0
Epoch 9/10
24/24 [==============================] - 82s 3s/step - loss: 0.0
Epoch 10/10
24/24 [==============================] - 81s 3s/step - loss: 0.0
Out[17]:
```