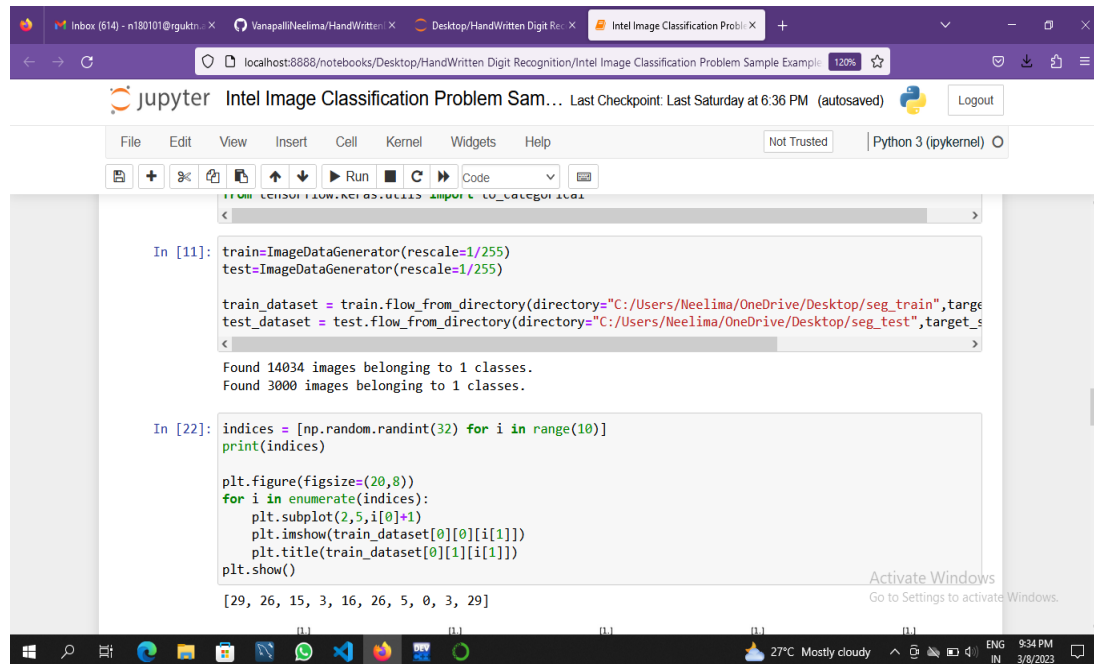


Intel Image Classification Outputs



This screenshot shows a Jupyter Notebook interface with two code cells. The first cell, labeled 'In [11]:', contains code to create ImageDataGenerators and load image data from directories. The second cell, labeled 'In [22]:', generates 10 random indices and prints them. The output of the second cell is a list of indices: [29, 26, 15, 3, 16, 26, 5, 0, 3, 29].

```
In [11]: train=ImageDataGenerator(rescale=1/255)
test=ImageDataGenerator(rescale=1/255)

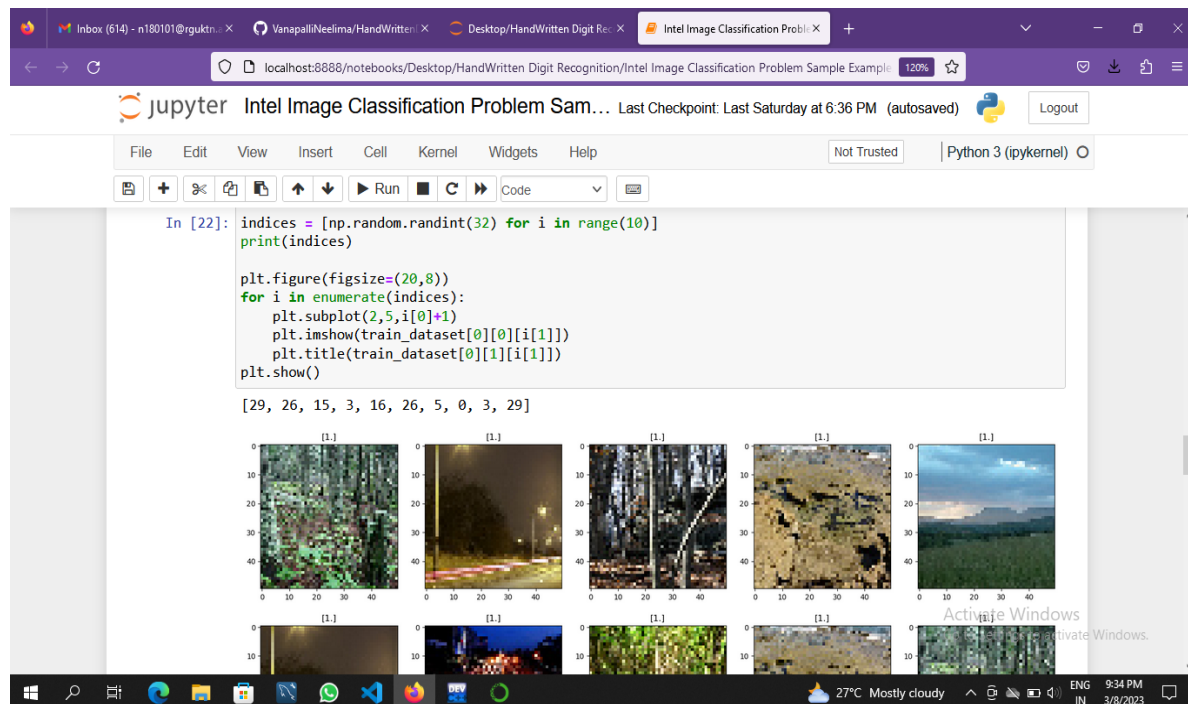
train_dataset = train.flow_from_directory(directory="C:/Users/Neelima/OneDrive/Desktop/seg_train",target_size=(256,256))
test_dataset = test.flow_from_directory(directory="C:/Users/Neelima/OneDrive/Desktop/seg_test",target_size=(256,256))

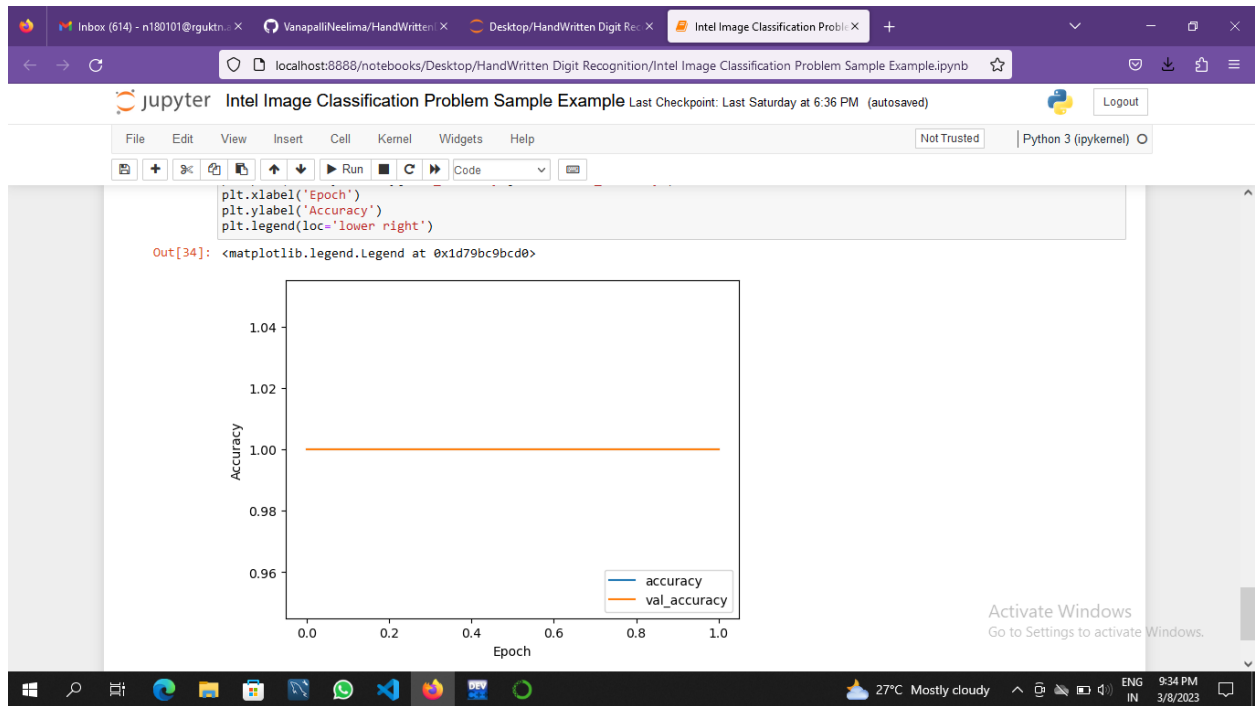
Found 14034 images belonging to 1 classes.
Found 3000 images belonging to 1 classes.

In [22]: indices = [np.random.randint(32) for i in range(10)]
print(indices)

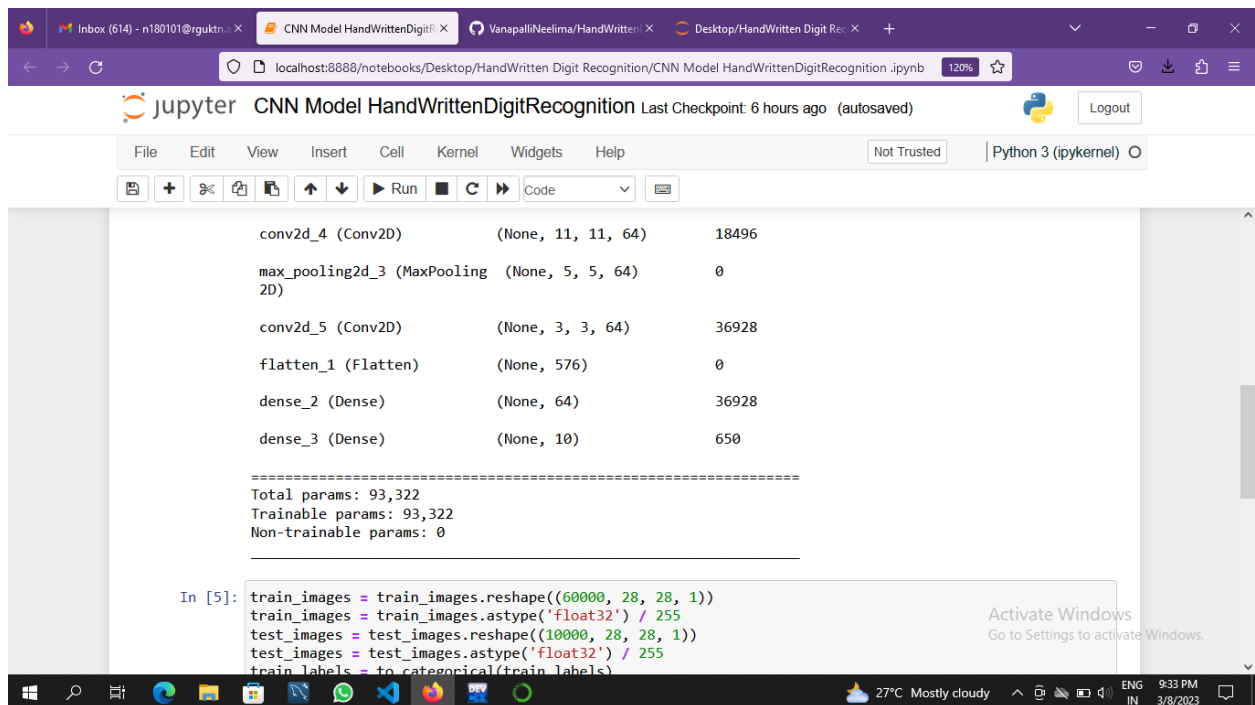
plt.figure(figsize=(20,8))
for i in enumerate(indices):
    plt.subplot(2,5,i[0]+1)
    plt.imshow(train_dataset[0][0][i[1]])
    plt.title(train_dataset[0][1][i[1]])
plt.show()

[29, 26, 15, 3, 16, 26, 5, 0, 3, 29]
```





CNN Model



The screenshot shows a Jupyter Notebook interface with the title 'CNN Model HandWrittenDigitRecognition'. The code in the cell defines a CNN model, trains it for 5 epochs, and evaluates it. The output shows the training progress for each epoch, including time, loss, and accuracy.

```
model.compile(optimizer='adam', loss='categorical_crossentropy', metrics=['accuracy'])
model.fit(train_images, train_labels, epochs=5, batch_size=64)

test_loss, test_acc = model.evaluate(test_images, test_labels)

print(test_acc)

model.save('mnist.h5')
```

Epoch 1/5
938/938 [=====] - 65s 63ms/step - loss: 0.1807 - accuracy: 0.9450
Epoch 2/5
938/938 [=====] - 58s 62ms/step - loss: 0.0489 - accuracy: 0.9847
Epoch 3/5
938/938 [=====] - 59s 62ms/step - loss: 0.0349 - accuracy: 0.9892
Epoch 4/5
938/938 [=====] - 58s 62ms/step - loss: 0.0267 - accuracy: 0.9918
Epoch 5/5
938/938 [=====] - 58s 62ms/step - loss: 0.0225 - accuracy: 0.9923
313/313 [=====] - 4s 10ms/step - loss: 0.0319 - accuracy: 0.9906
0.9905999898910522

GUI

The screenshot shows a Jupyter Notebook interface with the title 'GUI NEW'. The code in the cell is a simple loop that calls `win.mainloop()`. The output shows a series of progress bars and timing information, indicating that the GUI is running.

```
win.mainloop()
```

1/1 [=====] - 6s 6s/step
1/1 [=====] - 0s 33ms/step
1/1 [=====] - 0s 25ms/step
1/1 [=====] - 0s 75ms/step
1/1 [=====] - 0s 32ms/step
1/1 [=====] - 0s 32ms/step
1/1 [=====] - 0s 26ms/step
1/1 [=====] - 0s 40ms/step
1/1 [=====] - 0s 45ms/step
1/1 [=====] - 0s 32ms/step
1/1 [=====] - 0s 28ms/step
1/1 [=====] - 0s 37ms/step
1/1 [=====] - 0s 30ms/step
1/1 [=====] - 0s 24ms/step
1/1 [=====] - 0s 28ms/step
1/1 [=====] - 0s 24ms/step
1/1 [=====] - 0s 24ms/step
1/1 [=====] - 0s 28ms/step
1/1 [=====] - 0s 25ms/step
1/1 [=====] - 0s 24ms/step
1/1 [=====] - 0s 41ms/step
1/1 [=====] - 0s 25ms/step
1/1 [=====] - 0s 67ms/step
1/1 [=====] - 0s 42ms/step
1/1 [=====] - 0s 24ms/step

