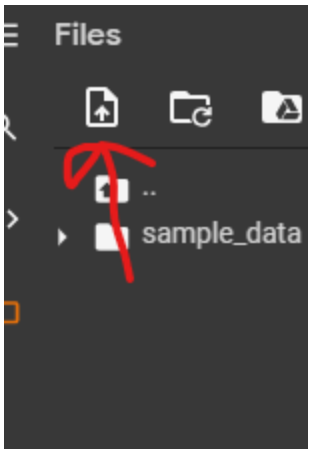
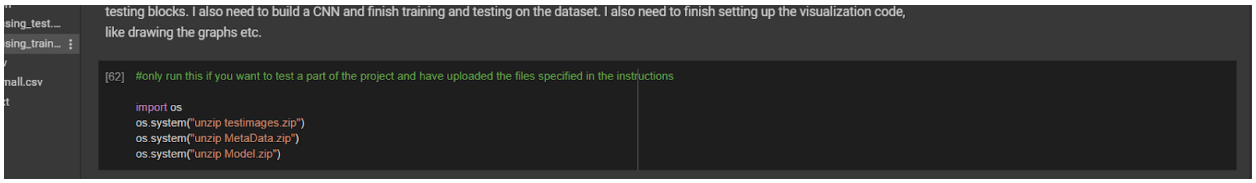
Instructions to run the program:

I need to share a lot of files to be able to train the model. This would be highly infeasible to share. So, I am only sharing the already built model and partial testing data to run for a demo. If you want to run the full project then get the zip file from this link:
https://drive.google.com/file/d/1mBGuIzu0zjwfBOJgigZ7ti6Yar32TIUN/view?usp=sharing
Just upload it like the rest of the files below and unzip it.

I have attached three zipped files to the submission. All you have to do is upload the zipped files to your google colab environment using the button shown in the picture below



Then go to the following cell of the project
Then run the shown cell (cell number 62) wherever it it's in your project



Then run the following cell after it and you should be able to see a sample output and an accuracy score.

```
[75]  # only run this if you want to test the model on partial data as given in the instructions

      X_test_im = glob.glob("/content/testimages/*.png")
      X_test_im.sort()

      with open(common_path + "y_test.txt", "rb") as fp:
        y_test_im = pickle.load(fp)

      y_test_im = y_test_im[0:100]

      print(len(X_test_im))
      print(len(y_test_im))

      testing_data_frame = pd.DataFrame(np.transpose([X_test_im, y_test_im]),
                        columns=['filename', 'class'])

      test_data = tf.data.Dataset.from_generator(lambda: testing_data_generator.flow_from_dataframe(validation_data_frame,target_size=(256,256),
                          batch_size=64,class_mode='binary',shuffle=False,color_mode='grayscale'),
                                          output_types=(tf.float32, tf.int32),
                                          output_shapes=([None, 256,256, 1], [None, ]))


      model_test = models.load_model("/content/Model/Version11")

      test_loss, test_acc = model_test.evaluate(test_data, steps = 30, verbose=2)
      print("test loss: " + str(test_loss))
      print("test accuracy" + str(test_acc))
```