

Screenshots of runtime

The screenshot shows a Google Colab notebook interface. The browser tabs at the top include 'Covid_oi', 'SarsCovid', 'Image-C', 'DeTraC', 'Inbox (5)', 'My Drive', 'what is', 'Executiv', 'GitHub', 'Covid19', and a plus sign for more tabs. The address bar shows the URL: `colab.research.google.com/drive/1quZZXqjaXUJ_XWYUWUixMUE7ImGBqNYZ#scrollTo=7BSULwdtVkc7`. The notebook title is 'SarsCovid_image_classificati.ipynb'. The menu bar includes 'File', 'Edit', 'View', 'Insert', 'Runtime', 'Tools', 'Help', and 'Saving...'. The toolbar shows 'RAM' and 'Disk' usage, and an 'Editing' mode button. The code editor displays the following code:

```
[16] df_train.to_csv("Covid.csv",index=False)
      df_val.to_csv("Covid_val.csv",index=False)
      df_eval.to_csv("Covid_eval.csv",index=False)

[17] import shutil

for i in df_train['File']:
    shutil.copy(i, '/content/drive/MyDrive/training_folder')

for i in df_val['File']:
    shutil.copy(i, '/content/drive/MyDrive/test_folder (1)')

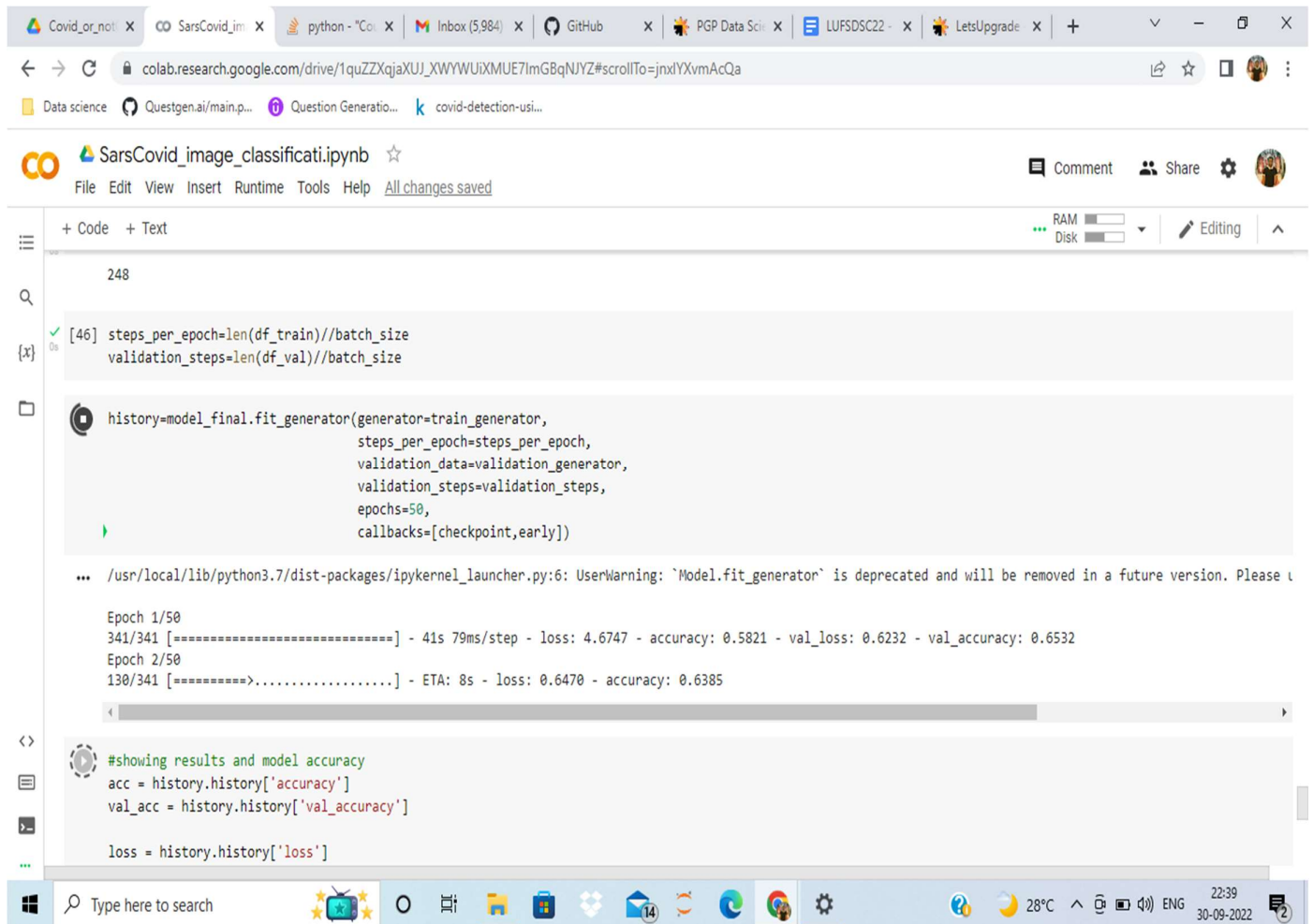
from tensorflow.keras.preprocessing.image import ImageDataGenerator
```

Below the code editor, there is a text input field with the text: "All images are brought down to same scale which makes model to train efficiently". Below this, there is a code cell with the following code:

```
datagen=ImageDataGenerator(rescale=1./255)
```

Below the code cell, there is a text input field with the text: "Created train_generator which contain covid & non_covid type image files for training of". The Windows taskbar at the bottom shows the search bar, task view, and various application icons. The system tray shows the temperature (30°C), time (20:41), and date (27-09-2022).

Screenshots of runtime



The screenshot displays a Google Colab notebook titled "SarsCovid_image_classificati.ipynb". The notebook is open in a web browser, and the URL is visible in the address bar. The notebook interface shows the code editor with the following code:

```
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[46] steps_per_epoch=len(df_train)//batch_size
validation_steps=len(df_val)//batch_size

history=model_final.fit_generator(generator=train_generator,
                                  steps_per_epoch=steps_per_epoch,
                                  validation_data=validation_generator,
                                  validation_steps=validation_steps,
                                  epochs=50,
                                  callbacks=[checkpoint,early])
```

The output of the code execution is shown below the code cells. It includes a warning message from the IPykernel launcher and the training progress for 50 epochs. The progress bar shows the current epoch (1/50) and the corresponding loss, accuracy, and validation loss/accuracy.

```
... /usr/local/lib/python3.7/dist-packages/ipykernel_launcher.py:6: UserWarning: `Model.fit_generator` is deprecated and will be removed in a future version. Please u

Epoch 1/50
341/341 [=====] - 41s 79ms/step - loss: 4.6747 - accuracy: 0.5821 - val_loss: 0.6232 - val_accuracy: 0.6532
Epoch 2/50
130/341 [=====>.....] - ETA: 8s - loss: 0.6470 - accuracy: 0.6385
```

The notebook also includes a code cell for showing results and model accuracy:

```
#showing results and model accuracy
acc = history.history['accuracy']
val_acc = history.history['val_accuracy']

loss = history.history['loss']
```

The bottom of the screenshot shows the Windows taskbar with the search bar, task view button, and several open applications. The system tray on the right shows the date and time (22:39, 30-09-2022) and the language (ENG).