

Syntax Error

Code Execution Mode

Step 1: A connection between the Colab and the drive will need to be started by executing this code.

```
from google.colab import drive #We import content from a file in drive
drive.mount('/content/gdrive')
```

Step 2: We execute the following code to be able to create a copy of GIT in a new repository

```
!git clone https://github.com/ultralytics/yolov5
```

Step 3: We execute the following line to be able to manage packages and install and manage packages.

```
!pip install -U -r yolov5/requirements.txt
```

Step 4: We must execute the objective is to be able to have a look at the architecture of YOLO5.

```
%cd /content/yolov5
%cat /content/yolov5/models/yolov5s.yaml
```

Step 5: The following command is to import TORCH and be able to perform numerical calculations using tensor programming and the image command is to be able to view images.

```
import torch #We import Torch to ;
from IPython.display import Image
```

Step 6: The command tells us if TORCH is using the GPU

```
print('Using torch %s %s' %
```

Step 7: In this step we are placing our roboflow link and any other link can be placed, but always with the CURL command which makes most extensions compatible.

```
!curl -L "https://app.roboflow.com/ds/cbdwY2uYBY?key=784a1DxWNZ"
```

Step 8: We must execute this command to be able to facilitate the user to read and write.

```
%cat data.yaml
```

Step 9: Then we can define the number of classes that we want to define. This value can change depending on the data base that we have and the classes defined in it.

```
num_classes = 3
```

Step 10: We define again the number of classes and the names that they will have (the number of names will be equal to the number of classes that they have).

```
nc: 3 #numbers of the classes
names: ['atendiendo', 'distruido', 'dormido']
```

Step 11: We define the number of epochs with which we want to train and this is the user's choice, the number of images and the batch number.

```
%cd /content/yolov5/  
!python train.py --img 416 --batch 16 --epochs 75 --data './data.yaml' --cfg './models/yolov5s.yaml' --weights '' --name yolov5s_results --cache
```

Step 12: The matplotlib library will need to be uninstalled and reinstalled.

```
!python -m pip uninstall matplotlib  
!pip install matplotlib==3.1.3
```

Step 13: We must install the following command to be able to edit images with GIF, JPEG and PNG extension.

```
pip install Pillow==9.0.0
```

Step 14: The following contact will help us get a list of entries that will match a specified pattern.

```
import glob  
from IPython.display import Image, display
```

Step 15: Then we show the images obtained in YOLO5 or the results with the size we want and print it on the screen.

```
or image in glob.glob('/content/yolov5/runs/train/yolov5s_results3/*.jpg')[:25]:  
    display(Image(filename=image))  
    print("\n")
```

Step 16: In this part we call the results of YOLO5 in the form of a graph between the different classes that we had.

```
for image in glob.glob('/content/yolov5/runs/train/yolov5s_results3/*.png')[:25]:  
    display(Image(filename=image))  
    print("\n")
```

Step 17: It is possible that the address of the results when doing a next execution changes to what would be:

`‘/content/yolov5/runs/train/yolov5s_results4/*.png’`