

▼ UNZIPPING THE DATASET

```
1 !unzip -q /content/dataset-001.zip
```

▼ CLONING THE YOLO-V5 FILES FROM OFFICIAL REPOSITORY

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

```
→ Cloning into 'yolov5'...
remote: Enumerating objects: 12366, done.
remote: Counting objects: 100% (157/157), done.
remote: Compressing objects: 100% (101/101), done.
remote: Total 12366 (delta 95), reused 96 (delta 56), pack-reused 12209
Receiving objects: 100% (12366/12366), 12.42 MiB | 12.62 MiB/s, done.
Resolving deltas: 100% (8457/8457), done.
```

▼ CHANGING THE DIRECTORY

```
1 %cd yolov5/
```

```
→ /content/yolov5
```

▼ INSTALLING THE DEPENDENCIES

```
1 !pip install -r requirements.txt
```

```
→ Requirement already satisfied: requests>=2.23.0 in /usr/local/lib/python3.7/dist-packages (from -r requirements.txt)
Requirement already satisfied: scipy>=1.4.1 in /usr/local/lib/python3.7/dist-packages (from -r requirements.txt)
Requirement already satisfied: torch>=1.7.0 in /usr/local/lib/python3.7/dist-packages (from -r requirements.txt)
Requirement already satisfied: torchvision>=0.8.1 in /usr/local/lib/python3.7/dist-packages (from -r requirements.txt)
Requirement already satisfied: tqdm>=4.64.0 in /usr/local/lib/python3.7/dist-packages (from -r requirements.txt)
Requirement already satisfied: protobuf<=3.20.1 in /usr/local/lib/python3.7/dist-packages (from -r requirements.txt)
Requirement already satisfied: tensorboard>=2.4.1 in /usr/local/lib/python3.7/dist-packages (from -r requirements.txt)
Requirement already satisfied: pandas>=1.1.4 in /usr/local/lib/python3.7/dist-packages (from -r requirements.txt)
Requirement already satisfied: seaborn>=0.11.0 in /usr/local/lib/python3.7/dist-packages (from -r requirements.txt)
Requirement already satisfied: ipython in /usr/local/lib/python3.7/dist-packages (from -r requirements.txt)
Requirement already satisfied: psutil in /usr/local/lib/python3.7/dist-packages (from -r requirements.txt)
Collecting thop>=0.1.1
  Downloading thop-0.1.1.post2207130030-py3-none-any.whl (15 kB)
Requirement already satisfied: kiwisolver>=1.0.1 in /usr/local/lib/python3.7/dist-packages (from matplotlib>3.2.1)
Requirement already satisfied: pyparsing!=2.0.4,>=2.1.2,<2.1.6,>=2.0.1 in /usr/local/lib/python3.7/dist-packages (from matplotlib>3.2.1)
Requirement already satisfied: python-dateutil>=2.1 in /usr/local/lib/python3.7/dist-packages (from matplotlib>3.2.1)
Requirement already satisfied: cycler>=0.10 in /usr/local/lib/python3.7/dist-packages (from matplotlib>3.2.1)
Requirement already satisfied: certifi>=2017.4.17 in /usr/local/lib/python3.7/dist-packages (from requests>=2.23.0)
Requirement already satisfied: idna<3,>=2.5 in /usr/local/lib/python3.7/dist-packages (from requests>=2.23.0)
Requirement already satisfied: chardet<4,>=3.0.2 in /usr/local/lib/python3.7/dist-packages (from requests>=2.23.0)
Requirement already satisfied: urllib3!=1.25.0,>=1.25.1,<1.26,>=1.21.1 in /usr/local/lib/python3.7/dist-packages (from requests>=2.23.0)
Requirement already satisfied: typing-extensions in /usr/local/lib/python3.7/dist-packages (from torch>=1.7.1)
Requirement already satisfied: six>=1.9 in /usr/local/lib/python3.7/dist-packages (from protobuf<=3.20.1->-r tensorflow>2.10.0)
Requirement already satisfied: tensorboard-data-server<0.7.0,>=0.6.0 in /usr/local/lib/python3.7/dist-packages (from tensorboard>=2.4)
Requirement already satisfied: absl-py>=0.4 in /usr/local/lib/python3.7/dist-packages (from tensorboard>=2.4)
Requirement already satisfied: google-auth<3,>=1.6.3 in /usr/local/lib/python3.7/dist-packages (from tensorflow>2.10.0)
Requirement already satisfied: google-auth-oauthlib<0.5,>=0.4.1 in /usr/local/lib/python3.7/dist-packages (from tensorflow>2.10.0)
```

```
Requirement already satisfied: rsa<5,>=3.1.4 in /usr/local/lib/python3.7/dist-packages (from google-auth<3,>)
Requirement already satisfied: requests-oauthlib>=0.7.0 in /usr/local/lib/python3.7/dist-packages (from google-auth<3,>)
Requirement already satisfied: importlib-metadata>=4.4 in /usr/local/lib/python3.7/dist-packages (from markdown<3.0,>)
Requirement already satisfied: zipp>=0.5 in /usr/local/lib/python3.7/dist-packages (from importlib-metadata>)
Requirement already satisfied: pyasn1<0.5.0,>=0.4.6 in /usr/local/lib/python3.7/dist-packages (from pyasn1-mime<0.5.0,>)
Requirement already satisfied: oauthlib>=3.0.0 in /usr/local/lib/python3.7/dist-packages (from requests-oauthlib<2.0.0,>)
Requirement already satisfied: decorator in /usr/local/lib/python3.7/dist-packages (from ipython->-r requirement)
Requirement already satisfied: prompt-toolkit<2.0.0,>=1.0.4 in /usr/local/lib/python3.7/dist-packages (from ipython->-r requirement)
Requirement already satisfied: pickleshare in /usr/local/lib/python3.7/dist-packages (from ipython->-r requirement)
Requirement already satisfied: pygments in /usr/local/lib/python3.7/dist-packages (from ipython->-r requirement)
Requirement already satisfied: simplegeneric>0.8 in /usr/local/lib/python3.7/dist-packages (from ipython->-r requirement)
Requirement already satisfied: traitlets>=4.2 in /usr/local/lib/python3.7/dist-packages (from ipython->-r requirement)
Requirement already satisfied: pexpect in /usr/local/lib/python3.7/dist-packages (from ipython->-r requirement)
Requirement already satisfied: wcwidth in /usr/local/lib/python3.7/dist-packages (from prompt-toolkit<2.0.0,>)
Requirement already satisfied: ptyprocess>=0.5 in /usr/local/lib/python3.7/dist-packages (from pexpect->ipython)
Installing collected packages: thop, PyYAML
  Attempting uninstall: PyYAML
    Found existing installation: PyYAML 3.13
    Uninstalling PyYAML-3.13:
      Successfully uninstalled PyYAML-3.13
Successfully installed PyYAML-6.0 thop-0.1.1.post2207130030
```

▼ DOWNLOADING ALL VERSIONS OF YOLO-V5 MODEL

```
1 !/content/yolov5/data/scripts/download_weights.sh
```

```
→ Downloading https://github.com/ultralytics/yolov5/releases/download/v6.1/yolov5n.pt to yolov5n.pt...
100% 3.87M/3.87M [00:00<00:00, 39.1MB/s]

Downloading https://github.com/ultralytics/yolov5/releases/download/v6.1/yolov5s.pt to yolov5s.pt...
100% 14.1M/14.1M [00:00<00:00, 53.5MB/s]

Downloading https://github.com/ultralytics/yolov5/releases/download/v6.1/yolov5m.pt to yolov5m.pt...
100% 40.8M/40.8M [00:03<00:00, 13.1MB/s]

Downloading https://github.com/ultralytics/yolov5/releases/download/v6.1/yolov5l.pt to yolov5l.pt...
100% 89.3M/89.3M [00:00<00:00, 206MB/s]

Downloading https://github.com/ultralytics/yolov5/releases/download/v6.1/yolov5x.pt to yolov5x.pt...
100% 166M/166M [00:06<00:00, 28.2MB/s]

Downloading https://github.com/ultralytics/yolov5/releases/download/v6.1/yolov5n6.pt to yolov5n6.pt...
100% 6.86M/6.86M [00:00<00:00, 90.5MB/s]

Downloading https://github.com/ultralytics/yolov5/releases/download/v6.1/yolov5s6.pt to yolov5s6.pt...
100% 24.8M/24.8M [00:00<00:00, 51.7MB/s]

Downloading https://github.com/ultralytics/yolov5/releases/download/v6.1/yolov5m6.pt to yolov5m6.pt...
100% 69.0M/69.0M [00:02<00:00, 24.7MB/s]

Downloading https://github.com/ultralytics/yolov5/releases/download/v6.1/yolov5l6.pt to yolov5l6.pt...
100% 147M/147M [00:04<00:00, 36.4MB/s]

Downloading https://github.com/ultralytics/yolov5/releases/download/v6.1/yolov5x6.pt to yolov5x6.pt...
100% 270M/270M [00:22<00:00, 12.8MB/s]
```

STEPS BEFORE TRAINING CUSTOM DATASET:

1. Go to yolov5/data/
2. Open coco128.yaml
3. Edit the following inside it:
 1. Training and Test file path
 2. Number of classes and Class names.

▼ TRAINING THE YOLO-V5 MODEL

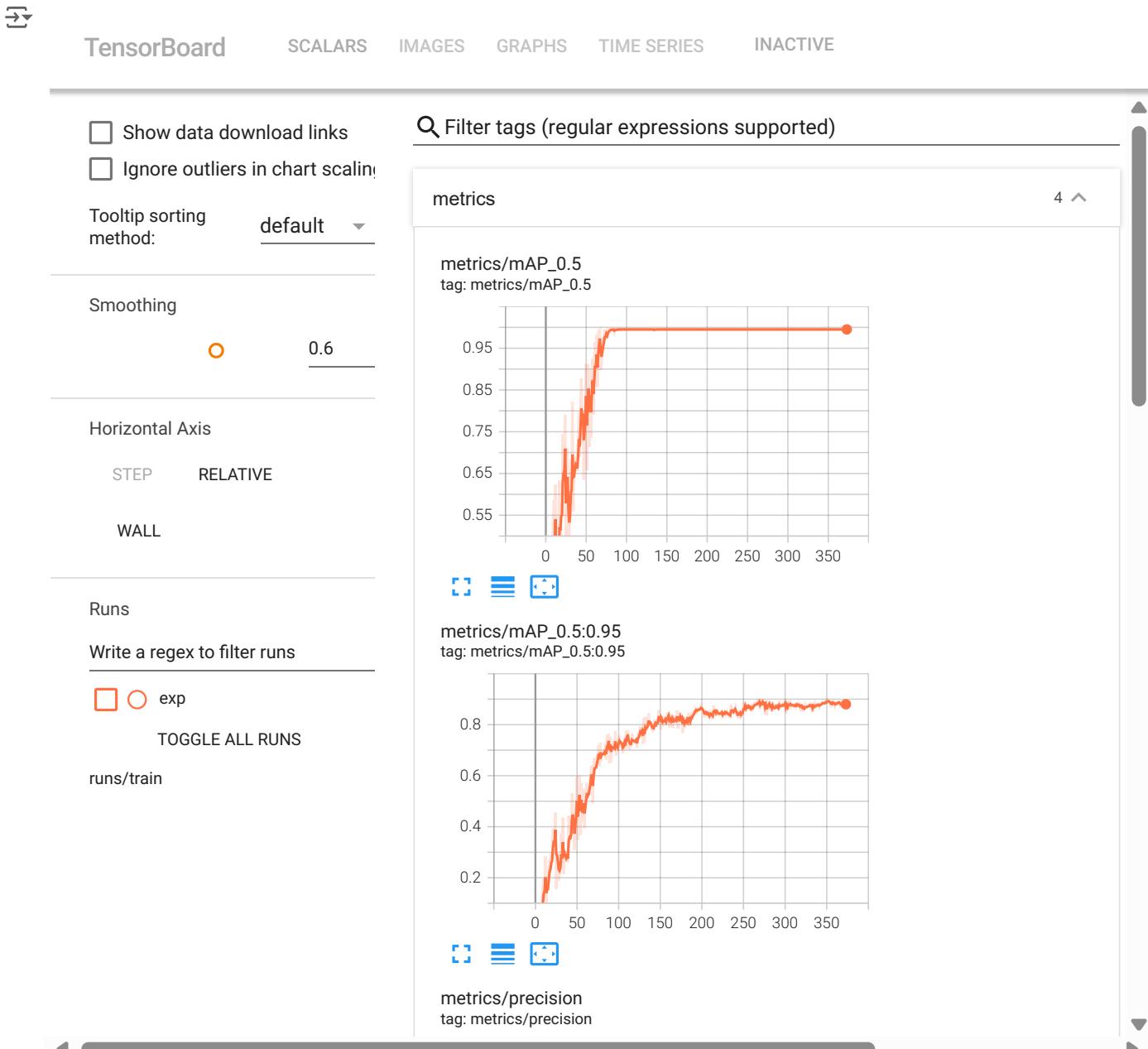
```
1 !python train.py --img 416 --batch 32 --epochs 500 --data coco128.yaml --weights yolov5s.pt
```



Class	Images	Labels	P	R	mAP@.5	mAP@.5:.95:	100%	1/1	[00:00<00:0]
all	11	20	0.291	0.74	0.394	0.157			

▼ VISUALIZING THE TRAINING METRICS

```
1 %load_ext tensorboard
2 %tensorboard --logdir runs/train
```



▼ TESTING

```
1 from PIL import Image
2 Image.open('/content/yolov5/runs/train/exp/image_0_1659.jpeg')
```



```
!python detect.py --source runs/train/exp2/a.jpg --weights best.pt
```

```
!python val.py --weights /content/yolov5/runs/train/exp/weights/best.pt --data coco128.yaml --img 416
```

```
→ val: data=/content/yolov5/data/coco128.yaml, weights=['/content/yolov5/runs/train/exp2/weights/best.pt'], batch_size=1  
YOLOv5 🚀 v6.1-320-gb367860 Python-3.7.13 torch-1.12.0+cu113 CUDA:0 (Tesla T4, 15110MiB)  
  
Fusing layers...  
Model summary: 213 layers, 7012822 parameters, 0 gradients, 15.8 GFLOPs  
val: Scanning '/content/dataset/valid/labels.cache' images and labels... 11 found, 0 missing, 0 empty, 0 corrupted  
          Class      Images      Labels         P         R      mAP@.5  mAP@.5:.95: 100% 1/1 [00:00<00:00,  
              all        11         20      0.997       1     0.995      0.863  
Speed: 0.1ms pre-process, 5.7ms inference, 2.9ms NMS per image at shape (32, 3, 416, 416)  
Results saved to runs/val/exp2
```

▼ DETECTING ON NEW IMAGES

```
1 #/content/dataset/test/images/abc.jpg  
2 !python detect.py --source /content/dataset/test/images --weights /content/yolov5/runs/train/exp/weights/best.pt
```

detect: weights=['/content/yolov5/runs/train/exp/weights/best.pt'], source=/content/dataset/test/images, dat
YOLOv5 🚀 v6.1-348-g0669f1b Python-3.7.13 torch-1.12.0+cu113 CUDA:0 (Tesla T4, 15110MiB)

Fusing layers...

```
Model summary: 367 layers, 46108278 parameters, 0 gradients, 107.6 GFLOPs
video 1/1 (1/341) /content/dataset/test/images/input-3.mp4: 416x256 1 1, Done. (0.022s)
video 1/1 (2/341) /content/dataset/test/images/input-3.mp4: 416x256 1 1, Done. (0.022s)
video 1/1 (3/341) /content/dataset/test/images/input-3.mp4: 416x256 1 1, Done. (0.022s)
video 1/1 (4/341) /content/dataset/test/images/input-3.mp4: 416x256 1 1, Done. (0.022s)
```

```
video 1/1 (5/341) /content/dataset/test/images/input-3.mp4: 416x256 1 1, Done. (0.022s)
video 1/1 (6/341) /content/dataset/test/images/input-3.mp4: 416x256 1 1, Done. (0.022s)
video 1/1 (7/341) /content/dataset/test/images/input-3.mp4: 416x256 1 1, Done. (0.022s)
video 1/1 (8/341) /content/dataset/test/images/input-3.mp4: 416x256 1 1, Done. (0.022s)
video 1/1 (9/341) /content/dataset/test/images/input-3.mp4: 416x256 1 1, Done. (0.019s)
video 1/1 (10/341) /content/dataset/test/images/input-3.mp4: 416x256 1 1, Done. (0.021s)
video 1/1 (11/341) /content/dataset/test/images/input-3.mp4: 416x256 1 1, Done. (0.013s)
video 1/1 (12/341) /content/dataset/test/images/input-3.mp4: 416x256 1 1, Done. (0.013s)
video 1/1 (13/341) /content/dataset/test/images/input-3.mp4: 416x256 Done. (0.014s)
video 1/1 (14/341) /content/dataset/test/images/input-3.mp4: 416x256 Done. (0.013s)
video 1/1 (15/341) /content/dataset/test/images/input-3.mp4: 416x256 Done. (0.014s)
video 1/1 (16/341) /content/dataset/test/images/input-3.mp4: 416x256 Done. (0.015s)
video 1/1 (17/341) /content/dataset/test/images/input-3.mp4: 416x256 Done. (0.013s)
video 1/1 (18/341) /content/dataset/test/images/input-3.mp4: 416x256 Done. (0.013s)
video 1/1 (19/341) /content/dataset/test/images/input-3.mp4: 416x256 Done. (0.013s)
video 1/1 (20/341) /content/dataset/test/images/input-3.mp4: 416x256 Done. (0.014s)
video 1/1 (21/341) /content/dataset/test/images/input-3.mp4: 416x256 Done. (0.017s)
video 1/1 (22/341) /content/dataset/test/images/input-3.mp4: 416x256 Done. (0.014s)
video 1/1 (23/341) /content/dataset/test/images/input-3.mp4: 416x256 Done. (0.014s)
video 1/1 (24/341) /content/dataset/test/images/input-3.mp4: 416x256 Done. (0.013s)
video 1/1 (25/341) /content/dataset/test/images/input-3.mp4: 416x256 Done. (0.013s)
video 1/1 (26/341) /content/dataset/test/images/input-3.mp4: 416x256 Done. (0.013s)
video 1/1 (27/341) /content/dataset/test/images/input-3.mp4: 416x256 Done. (0.014s)
video 1/1 (28/341) /content/dataset/test/images/input-3.mp4: 416x256 Done. (0.013s)
video 1/1 (29/341) /content/dataset/test/images/input-3.mp4: 416x256 Done. (0.013s)
video 1/1 (30/341) /content/dataset/test/images/input-3.mp4: 416x256 Done. (0.013s)
video 1/1 (31/341) /content/dataset/test/images/input-3.mp4: 416x256 Done. (0.014s)
video 1/1 (32/341) /content/dataset/test/images/input-3.mp4: 416x256 Done. (0.015s)
video 1/1 (33/341) /content/dataset/test/images/input-3.mp4: 416x256 Done. (0.014s)
video 1/1 (34/341) /content/dataset/test/images/input-3.mp4: 416x256 Done. (0.013s)
video 1/1 (35/341) /content/dataset/test/images/input-3.mp4: 416x256 Done. (0.015s)
video 1/1 (36/341) /content/dataset/test/images/input-3.mp4: 416x256 Done. (0.013s)
video 1/1 (37/341) /content/dataset/test/images/input-3.mp4: 416x256 Done. (0.013s)
video 1/1 (38/341) /content/dataset/test/images/input-3.mp4: 416x256 Done. (0.013s)
video 1/1 (39/341) /content/dataset/test/images/input-3.mp4: 416x256 1 1, Done. (0.013s)
video 1/1 (40/341) /content/dataset/test/images/input-3.mp4: 416x256 1 1, Done. (0.013s)
video 1/1 (41/341) /content/dataset/test/images/input-3.mp4: 416x256 1 1, Done. (0.013s)
video 1/1 (42/341) /content/dataset/test/images/input-3.mp4: 416x256 1 1, Done. (0.013s)
video 1/1 (43/341) /content/dataset/test/images/input-3.mp4: 416x256 1 1, Done. (0.013s)
video 1/1 (44/341) /content/dataset/test/images/input-3.mp4: 416x256 1 1, Done. (0.013s)
video 1/1 (45/341) /content/dataset/test/images/input-3.mp4: 416x256 1 1, Done. (0.013s)
video 1/1 (46/341) /content/dataset/test/images/input-3.mp4: 416x256 1 1, Done. (0.013s)
video 1/1 (47/341) /content/dataset/test/images/input-3.mp4: 416x256 1 1, Done. (0.013s)
video 1/1 (48/341) /content/dataset/test/images/input-3.mp4: 416x256 1 1, Done. (0.015s)
video 1/1 (49/341) /content/dataset/test/images/input-3.mp4: 416x256 1 1, Done. (0.014s)
video 1/1 (50/341) /content/dataset/test/images/input-3.mp4: 416x256 1 1, Done. (0.013s)
video 1/1 (51/341) /content/dataset/test/images/input-3.mp4: 416x256 1 1, Done. (0.013s)
video 1/1 (52/341) /content/dataset/test/images/input-3.mp4: 416x256 1 1, Done. (0.013s)
```

```
1 #/content/dataset/test/images/abc.jpg
2 !python detect.py --source 0 --weights /content/yolov5/runs/train/exp/weights/best.pt --img 416 --save-txt --s
```

detect: weights=['/content/yolov5/runs/train/exp/weights/best.pt'], source=0, data=data/coco128.yaml, imgsz=[41 YOLOv5 🚀 v6.1-324-g0b5ac22 Python-3.7.13 torch-1.12.0+cu113 CUDA:0 (Tesla T4, 15110MiB)

Fusing layers...
Model summary: 367 layers, 46108278 parameters, 0 gradients, 107.6 GFLOPs
WARNING: Environment does not support cv2.imshow() or PIL Image.show() image displays
cv2.imshow() is disabled in Docker environments
Traceback (most recent call last):
File "detect.py", line 257, in <module>
 main(opt)
File "detect.py", line 252, in main
 run(**vars(opt))
File "/usr/local/lib/python3.7/dist-packages/torch/autograd/grad_mode.py", line 27, in decorate_context
 return func(*args, **kwargs)
File "detect.py", line 101, in run
 dataset = LoadStreams(source, img_size=imgsz, stride=stride, auto=pt)
File "/content/yolov5/utils/dataloaders.py", line 336, in __init__
 assert not is_colab(), '--source 0 webcam unsupported on Colab. Rerun command in a local environment.'
AssertionError: --source 0 webcam unsupported on Colab. Rerun command in a local environment.

```
1 Image.open('/content/yolov5/runs/detect/exp2/abc.jpg')
```



⌄ RETRAINING FROM THE LAST CHECKPOINT

```
1 !python train.py --weights /content/yolov5/runs/train/exp/weights/best.pt --epochs 300 --img 416
→ train: weights=/content/yolov5/runs/train/exp/weights/best.pt, cfg=, data=data/coco128.yaml, hyp=data/hyps/h
github: up to date with https://github.com/ultralytics/yolov5 ✓
YOLOv5 🚀 v6.1-316-g916bdb1 Python-3.7.13 torch-1.12.0+cu113 CUDA:0 (Tesla T4, 15110MiB)

hyperparameters: lr0=0.01, lrf=0.01, momentum=0.937, weight_decay=0.0005, warmup_epochs=3.0, warmup_momentum
Weights & Biases: run 'pip install wandb' to automatically track and visualize YOLOv5 🚀 runs (RECOMMENDED)
TensorBoard: Start with 'tensorboard --logdir runs/train', view at http://localhost:6006/
```

	from	n	params	module	arguments	
0		-1	1	3520	models.common.Conv	[3, 32, 6, 2, 2]
1		-1	1	18560	models.common.Conv	[32, 64, 3, 2]
2		-1	1	18816	models.common.C3	[64, 64, 1]
3		-1	1	73984	models.common.Conv	[64, 128, 3, 2]
4		-1	2	115712	models.common.C3	[128, 128, 2]
5		-1	1	295424	models.common.Conv	[128, 256, 3, 2]
6		-1	3	625152	models.common.C3	[256, 256, 3]
7		-1	1	1180672	models.common.Conv	[256, 512, 3, 2]
8		-1	1	1182720	models.common.C3	[512, 512, 1]
9		-1	1	656896	models.common.SPPF	[512, 512, 5]
10		-1	1	131584	models.common.Conv	[512, 256, 1, 1]
11		-1	1	0	torch.nn.modules.upsampling.Upsample	[None, 2, 'nearest']
12		[-1, 6]	1	0	models.common.Concat	[1]
13		-1	1	361984	models.common.C3	[512, 256, 1, False]
14		-1	1	33024	models.common.Conv	[256, 128, 1, 1]
15		-1	1	0	torch.nn.modules.upsampling.Upsample	[None, 2, 'nearest']
16		[-1, 4]	1	0	models.common.Concat	[1]
17		-1	1	90880	models.common.C3	[256, 128, 1, False]
18		-1	1	147712	models.common.Conv	[128, 128, 3, 2]

```

19      [-1, 14] 1      0 models.common.Concat      [1]
20          -1 1  296448 models.common.C3      [256, 256, 1, False]
21          -1 1  590336 models.common.Conv      [256, 256, 3, 2]
22      [-1, 10] 1      0 models.common.Concat      [1]
23          -1 1  1182720 models.common.C3      [512, 512, 1, False]
24      [17, 20, 23] 1    16182 models.yolo.Detect      [1, [[10, 13, 16, 30, 33, 23], [
Model summary: 270 layers, 7022326 parameters, 7022326 gradients, 15.9 GFLOPs

```

Transferred 349/349 items from /content/yolov5/runs/train/exp/weights/best.pt

AMP: checks passed ✓

Scaled weight_decay = 0.0005

optimizer: SGD with parameter groups 57 weight (no decay), 60 weight, 60 bias

albumentations: version 1.0.3 required by YOLOv5, but version 0.1.12 is currently installed

train: Scanning '/content/dataset/train/labels.cache' images and labels... 21 found, 0 missing, 0 empty, 0 c

val: Scanning '/content/dataset/valid/labels.cache' images and labels... 6 found, 0 missing, 0 empty, 0 corr

Plotting labels to runs/train/exp2/labels.jpg...

AutoAnchor: 3.14 anchors/target, 1.000 Best Possible Recall (BPR). Current anchors are a good fit to dataset

Image sizes 416 train, 416 val

Using 2 dataloader workers

Logging results to runs/train/exp2

Starting training for 300 epochs...

Epoch	gpu_mem	box	obj	cls	labels	img_size
0/299	1.74G	0.03433	0.01053	0	12	416: 100% 2/2 [00:02<00:00, 1.32s/it]
	Class	Images	Labels	P	R	mAP@.5 mAP@.5:.95: 100% 1/1 [00:00<00:00]
	all	6	6	0.991	1	0.995 0.745

Epoch	gpu_mem	box	obj	cls	labels	img_size

1 Start coding or generate with AI.

Double-click (or enter) to edit

1 Start coding or generate with AI.

```

1 from google.colab import drive
2 drive.mount('/content/drive')

```

→ Mounted at /content/drive

```

1 import re
2 #/content/yolov5/runs/detect/exp/labels/1658649632614_jpg.rf.f656c188dba7ba0cc2f5c9bcc332d58c.txt
3 path='/content/yolov5/runs/detect/exp/labels/1658649632614_jpg.rf.f656c188dba7ba0cc2f5c9bcc332d58c.txt'
4 myfile=open(path,'r')
5 lines=myfile.readlines()
6 pattern= "class_name"
7
8 cordinate = []
9 for line in lines:
10   for x in line.splitlines():
11     cordinate.append([x[1:]])
12 # if re.search(pattern,line):
13 #   Cord_Raw=line
14 # Cord=Cord_Raw.split("(")[1].split(")")[0].split(" ")

```

1 cordinate

```
→ [[ ' 0.521635 0.616587 0.4375 0.420673 0.89398'],
  [' 0.171875 0.423077 0.271635 0.5 0.921115']]
```

```
1 cordinate[0]
```

```
→ [' 0.521635 0.616587 0.4375 0.420673 0.89398']
```

```
1
2 import cv2
3 #/content/drive/MyDrive/two hundred seventy eight.jpg
4 img = cv2.imread("/content/drive/MyDrive/two hundred seventy eight.jpg")
5 print(img.shape)
6 for i in cordinate:
7     count= 0
8     for val in i:
9         value = val.strip().split(" ")
10    x_min = int(float(value[0])*img.shape[0])
11    x_max = x_min + int(float(value[2])*img.shape[0])
12    y_min = int(float(value[1])*img.shape[1])
13    y_max = y_min + int(float(value[3])*img.shape[1])
14    crop_img = img[y_min:y_max, x_min:x_max]
15    cv2.imwrite(f"Object_{count}.jpg",crop_img)
16    count = count + 1
17
18
19
20
```

```
→ (1200, 1600, 3)
```

```
1 Start coding or generate with AI.
```

```
→ 0
```

```
1 import cv2
2 img = cv2.imread("/content/drive/MyDrive/two hundred seventy eight.jpg")
3 crop_img = img[y_min:y_max, x_min:x_max]
4 cv2.imwrite("Object.jpg",crop_img)
```

```
→ True
```

```
1 Start coding or generate with AI.
```

```
→ -----
AttributeError                                                 Traceback (most recent call last)
<ipython-input-25-d24c0a253056> in <module>()
----> 1 img.show()
```

```
AttributeError: 'numpy.ndarray' object has no attribute 'show'
```