

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

```
!cd ultralytics
```

```
!pip install -e ultralytics
```

```
Cloning into 'ultralytics'...
remote: Enumerating objects: 23815, done.
remote: Counting objects: 100% (339/339), done.
remote: Compressing objects: 100% (198/198), done.
remote: Total 23815 (delta 205), reused 232 (delta 141), pack-reused 23476
Receiving objects: 100% (23815/23815), 14.00 MiB | 27.68 MiB/s, done.
Resolving deltas: 100% (16686/16686), done.
Obtaining file:///kaggle/working/ultralytics
Installing build dependencies ... done
Checking if build backend supports build_editable ... done
Getting requirements to build editable ... done
Preparing editable metadata (pyproject.toml) ... done
Requirement already satisfied: matplotlib>=3.3.0 in /opt/conda/lib/python3.10/site-packages (from ultralytics==8.1.37) (3.7.5)
Requirement already satisfied: opencv-python>=4.6.0 in /opt/conda/lib/python3.10/site-packages (from ultralytics==8.1.37) (4.9.0)
Requirement already satisfied: pillow>=7.1.2 in /opt/conda/lib/python3.10/site-packages (from ultralytics==8.1.37) (9.5.0)
Requirement already satisfied: pyyaml>=5.3.1 in /opt/conda/lib/python3.10/site-packages (from ultralytics==8.1.37) (6.0.1)
Requirement already satisfied: requests>=2.23.0 in /opt/conda/lib/python3.10/site-packages (from ultralytics==8.1.37) (2.31.0)
Requirement already satisfied: scipy>=1.4.1 in /opt/conda/lib/python3.10/site-packages (from ultralytics==8.1.37) (1.11.4)
Requirement already satisfied: torch>=1.8.0 in /opt/conda/lib/python3.10/site-packages (from ultralytics==8.1.37) (2.1.2)
Requirement already satisfied: torchvision>=0.9.0 in /opt/conda/lib/python3.10/site-packages (from ultralytics==8.1.37) (0.16.2)
Requirement already satisfied: tqdm>=4.64.0 in /opt/conda/lib/python3.10/site-packages (from ultralytics==8.1.37) (4.66.1)
Requirement already satisfied: psutil in /opt/conda/lib/python3.10/site-packages (from ultralytics==8.1.37) (5.9.3)
Requirement already satisfied: py-cpuinfo in /opt/conda/lib/python3.10/site-packages (from ultralytics==8.1.37) (9.0.0)
Collecting thop>=0.1.1 (from ultralytics==8.1.37)
  Downloading thop-0.1.1.post2209072238-py3-none-any.whl.metadata (2.7 kB)
Requirement already satisfied: pandas>=1.1.4 in /opt/conda/lib/python3.10/site-packages (from ultralytics==8.1.37) (2.1.4)
Requirement already satisfied: seaborn>=0.11.0 in /opt/conda/lib/python3.10/site-packages (from ultralytics==8.1.37) (0.12.2)
Requirement already satisfied: contourpy>=1.0.1 in /opt/conda/lib/python3.10/site-packages (from matplotlib>=3.3.0->ultralytics==8.1.37) (1.0.7)
Requirement already satisfied: cycler>=0.10 in /opt/conda/lib/python3.10/site-packages (from matplotlib>=3.3.0->ultralytics==8.1.37) (0.12.1)
Requirement already satisfied: fonttools>=4.22.0 in /opt/conda/lib/python3.10/site-packages (from matplotlib>=3.3.0->ultralytics==8.1.37) (4.22.0)
Requirement already satisfied: kiwisolver>=1.0.1 in /opt/conda/lib/python3.10/site-packages (from matplotlib>=3.3.0->ultralytics==8.1.37) (1.4.5)
Requirement already satisfied: numpy<2,>=1.20 in /opt/conda/lib/python3.10/site-packages (from matplotlib>=3.3.0->ultralytics==8.1.37) (1.26.4)
Requirement already satisfied: packaging>=20.0 in /opt/conda/lib/python3.10/site-packages (from matplotlib>=3.3.0->ultralytics==8.1.37) (23.1)
Requirement already satisfied: pyparsing>=2.3.1 in /opt/conda/lib/python3.10/site-packages (from matplotlib>=3.3.0->ultralytics==8.1.37) (3.1.2)
Requirement already satisfied: python-dateutil>=2.7 in /opt/conda/lib/python3.10/site-packages (from matplotlib>=3.3.0->ultralytics==8.1.37) (2.8.2)
Requirement already satisfied: pytz>=2020.1 in /opt/conda/lib/python3.10/site-packages (from pandas>=1.1.4->ultralytics==8.1.37) (2023.3)
Requirement already satisfied: tzdata>=2022.1 in /opt/conda/lib/python3.10/site-packages (from pandas>=1.1.4->ultralytics==8.1.37) (2023.3)
Requirement already satisfied: charset-normalizer<4,>=2 in /opt/conda/lib/python3.10/site-packages (from requests>=2.23.0->ultralytics==8.1.37) (3.3.2)
Requirement already satisfied: idna<4,>=2.5 in /opt/conda/lib/python3.10/site-packages (from requests>=2.23.0->ultralytics==8.1.37) (3.6)
Requirement already satisfied: urllib3<3,>=1.21.1 in /opt/conda/lib/python3.10/site-packages (from requests>=2.23.0->ultralytics==8.1.37) (2.0.7)
Requirement already satisfied: certifi>=2017.4.17 in /opt/conda/lib/python3.10/site-packages (from requests>=2.23.0->ultralytics==8.1.37) (2023.7.22)
Requirement already satisfied: filelock in /opt/conda/lib/python3.10/site-packages (from torch>=1.8.0->ultralytics==8.1.37) (3.13.1)
Requirement already satisfied: typing-extensions in /opt/conda/lib/python3.10/site-packages (from torch>=1.8.0->ultralytics==8.1.37) (4.7.1)
Requirement already satisfied: sympy in /opt/conda/lib/python3.10/site-packages (from torch>=1.8.0->ultralytics==8.1.37) (1.12)
Requirement already satisfied: networkx in /opt/conda/lib/python3.10/site-packages (from torch>=1.8.0->ultralytics==8.1.37) (3.2.1)
Requirement already satisfied: jinja2 in /opt/conda/lib/python3.10/site-packages (from torch>=1.8.0->ultralytics==8.1.37) (3.1.2)
Requirement already satisfied: fsspec in /opt/conda/lib/python3.10/site-packages (from torch>=1.8.0->ultralytics==8.1.37) (2024.3.1)
Requirement already satisfied: six>=1.5 in /opt/conda/lib/python3.10/site-packages (from python-dateutil>=2.7->matplotlib>=3.3.0->ultralytics==8.1.37) (1.16.0)
Requirement already satisfied: MarkupSafe>=2.0 in /opt/conda/lib/python3.10/site-packages (from jinja2->torch>=1.8.0->ultralytics==8.1.37) (2.1.5)
Requirement already satisfied: mpmath>=0.19 in /opt/conda/lib/python3.10/site-packages (from sympy->torch>=1.8.0->ultralytics==8.1.37) (1.3.0)
Downloading thop-0.1.1.post2209072238-py3-none-any.whl (15 kB)
Building wheels for collected packages: ultralytics
  Building editable for ultralytics (pyproject.toml) ... done
  Created wheel for ultralytics: filename=ultralytics-8.1.37-0.editable-py3-none-any.whl size=22678 sha256=88b0984113091ab541a4ab
  Stored in directory: /tmp/pip-ephem-wheel-cache-6s_htekm/wheels/1b/eb/7d/853f2df0532389050170c8cd117b40e1fef8d125854a910fe6
Successfully built ultralytics
Installing collected packages: thop, ultralytics
Successfully installed thop-0.1.1.post2209072238 ultralytics-8.1.37
```

```
!mv -v /kaggle/working/SiriusPeople-2/train/ /kaggle/working/SiriusPeople-2/SiriusPeople-2
```

```
renamed '/kaggle/working/SiriusPeople-2/train/' -> '/kaggle/working/SiriusPeople-2/SiriusPeople-2/train'
```

```
!pip install roboflow
```

```
from roboflow import Roboflow
rf = Roboflow(api_key="S62ekBggIV0zYZDwemop")
project = rf.workspace("ivansaydyashev").project("siriuspeople")
version = project.version(2)
dataset = version.download("yolov7")
```

```
^C
Traceback (most recent call last):
  File "/opt/conda/bin/pip", line 6, in <module>
    from pip._internal.cli.main import main
  File "/opt/conda/lib/python3.10/site-packages/pip/_internal/cli/main.py", line 10, in <module>
    from pip._internal.cli.autocompletion import autocomplete
  File "/opt/conda/lib/python3.10/site-packages/pip/_internal/cli/autocompletion.py", line 10, in <module>
    from pip._internal.cli.main_parser import create_main_parser
```


```
!wandb off
!yolo task=detect \
mode=train \
model=yolov8s.pt \
data={dataset.location}/data.yaml \
epochs=250 \
imgsz=640
```

	from	n	params	module	arguments
0		-1 1	928	ultralytics.nn.modules.conv.Conv	[3, 32, 3, 2]
1		-1 1	18560	ultralytics.nn.modules.conv.Conv	[32, 64, 3, 2]
2		-1 1	29056	ultralytics.nn.modules.block.C2f	[64, 64, 1, True]
3		-1 1	73984	ultralytics.nn.modules.conv.Conv	[64, 128, 3, 2]
4		-1 2	197632	ultralytics.nn.modules.block.C2f	[128, 128, 2, True]
5		-1 1	295424	ultralytics.nn.modules.conv.Conv	[128, 256, 3, 2]
6		-1 2	788480	ultralytics.nn.modules.block.C2f	[256, 256, 2, True]
7		-1 1	1180672	ultralytics.nn.modules.conv.Conv	[256, 512, 3, 2]
8		-1 1	1838080	ultralytics.nn.modules.block.C2f	[512, 512, 1, True]
9		-1 1	656896	ultralytics.nn.modules.block.SPPF	[512, 512, 5]
10		-1 1	0	torch.nn.modules.upsampling.Upsample	[None, 2, 'nearest']
11	[-1, 6]	1	0	ultralytics.nn.modules.conv.Concat	[1]
12		-1 1	591360	ultralytics.nn.modules.block.C2f	[768, 256, 1]
13		-1 1	0	torch.nn.modules.upsampling.Upsample	[None, 2, 'nearest']
14	[-1, 4]	1	0	ultralytics.nn.modules.conv.Concat	[1]
15		-1 1	148224	ultralytics.nn.modules.block.C2f	[384, 128, 1]
16		-1 1	147712	ultralytics.nn.modules.conv.Conv	[128, 128, 3, 2]
17	[-1, 12]	1	0	ultralytics.nn.modules.conv.Concat	[1]
18		-1 1	493056	ultralytics.nn.modules.block.C2f	[384, 256, 1]
19		-1 1	590336	ultralytics.nn.modules.conv.Conv	[256, 256, 3, 2]
20	[-1, 9]	1	0	ultralytics.nn.modules.conv.Concat	[1]
21		-1 1	1969152	ultralytics.nn.modules.block.C2f	[768, 512, 1]
22	[15, 18, 21]	1	2117209	ultralytics.nn.modules.head.Detect	[3, [128, 256, 512]]

Model summary: 225 layers, 11136761 parameters, 11136745 gradients, 28.7 GFLOPs

```
Starting training for 250 epochs...
```

```
!yolo task=detect \  
mode=val \  
model=/kaggle/working/ultralytics/runs/detect/train3/weights/best.pt \  
data={dataset.location}/data.yaml
```

Ultralytics YOLOv8.1.37  Python-3.10.13 torch-2.1.2 CUDA:0 (Tesla T4, 15102MiB)


Model summary (fused): 168 layers, 11126745 parameters, 0 gradients, 28.4 GFLOPs

**val:** Scanning /kaggle/working/SiriusPeople-2/SiriusPeople-2/valid/labels.cache..

Class	Images	Instances	Box(P	R	mAP50	m
all	15	282	0.933	0.941	0.951	0.719
people_in_order	15	82	0.948	0.963	0.982	0.774
people_not_in_order	15	113	0.922	0.929	0.923	0.704
staff	15	87	0.93	0.931	0.947	0.678

Speed: 0.2ms preprocess, 12.2ms inference, 0.0ms loss, 39.8ms postprocess per image

Results saved to /kaggle/working/ultralytics/runs/detect/val

 Learn more at <https://docs.ultralytics.com/modes/val>

```
from IPython.display import FileLink  
FileLink(r'file.zip')
```

[file.zip](#)