```
!pip install ultralytics
Collecting ultralytics
  Downloading ultralytics-8.2.58-py3-none-any.whl (802 kB)
                                       - 802.7/802.7 kB 9.4 MB/s eta
0:00:00
ent already satisfied: numpy<2.0.0,>=1.23.0 in
/usr/local/lib/python3.10/dist-packages (from ultralytics) (1.25.2)
Requirement already satisfied: matplotlib>=3.3.0 in
/usr/local/lib/python3.10/dist-packages (from ultralytics) (3.7.1)
Requirement already satisfied: opency-python>=4.6.0 in
/usr/local/lib/python3.10/dist-packages (from ultralytics) (4.8.0.76)
Requirement already satisfied: pillow>=7.1.2 in
/usr/local/lib/python3.10/dist-packages (from ultralytics) (9.4.0)
Requirement already satisfied: pyyaml>=5.3.1 in
/usr/local/lib/python3.10/dist-packages (from ultralytics) (6.0.1)
Requirement already satisfied: requests>=2.23.0 in
/usr/local/lib/python3.10/dist-packages (from ultralytics) (2.31.0)
Requirement already satisfied: scipy>=1.4.1 in
/usr/local/lib/python3.10/dist-packages (from ultralytics) (1.11.4)
Requirement already satisfied: torch>=1.8.0 in
/usr/local/lib/python3.10/dist-packages (from ultralytics)
(2.3.0+cu121)
Requirement already satisfied: torchvision>=0.9.0 in
/usr/local/lib/python3.10/dist-packages (from ultralytics)
(0.18.0+cu121)
Requirement already satisfied: tgdm>=4.64.0 in
/usr/local/lib/python3.10/dist-packages (from ultralytics) (4.66.4)
Requirement already satisfied: psutil in
/usr/local/lib/python3.10/dist-packages (from ultralytics) (5.9.5)
Requirement already satisfied: py-cpuinfo in
/usr/local/lib/python3.10/dist-packages (from ultralytics) (9.0.0)
Requirement already satisfied: pandas>=1.1.4 in
/usr/local/lib/python3.10/dist-packages (from ultralytics) (2.0.3)
Requirement already satisfied: seaborn>=0.11.0 in
/usr/local/lib/python3.10/dist-packages (from ultralytics) (0.13.1)
Collecting ultralytics-thop>=2.0.0 (from ultralytics)
  Downloading ultralytics thop-2.0.0-py3-none-any.whl (25 kB)
Requirement already satisfied: contourpy>=1.0.1 in
/usr/local/lib/python3.10/dist-packages (from matplotlib>=3.3.0-
>ultralytics) (1.2.1)
Requirement already satisfied: cycler>=0.10 in
/usr/local/lib/python3.10/dist-packages (from matplotlib>=3.3.0-
>ultralytics) (0.12.1)
Requirement already satisfied: fonttools>=4.22.0 in
/usr/local/lib/python3.10/dist-packages (from matplotlib>=3.3.0-
>ultralytics) (4.53.1)
Requirement already satisfied: kiwisolver>=1.0.1 in
/usr/local/lib/python3.10/dist-packages (from matplotlib>=3.3.0-
>ultralytics) (1.4.5)
```

```
Requirement already satisfied: packaging>=20.0 in
/usr/local/lib/python3.10/dist-packages (from matplotlib>=3.3.0-
>ultralytics) (24.1)
Requirement already satisfied: pyparsing>=2.3.1 in
/usr/local/lib/python3.10/dist-packages (from matplotlib>=3.3.0-
>ultralytics) (3.1.2)
Requirement already satisfied: python-dateutil>=2.7 in
/usr/local/lib/python3.10/dist-packages (from matplotlib>=3.3.0-
>ultralytics) (2.8.2)
Requirement already satisfied: pytz>=2020.1 in
/usr/local/lib/python3.10/dist-packages (from pandas>=1.1.4-
>ultralytics) (2023.4)
Requirement already satisfied: tzdata>=2022.1 in
/usr/local/lib/python3.10/dist-packages (from pandas>=1.1.4-
>ultralytics) (2024.1)
Requirement already satisfied: charset-normalizer<4,>=2 in
/usr/local/lib/python3.10/dist-packages (from requests>=2.23.0-
>ultralytics) (3.3.2)
Requirement already satisfied: idna<4,>=2.5 in
/usr/local/lib/python3.10/dist-packages (from requests>=2.23.0-
>ultralytics) (3.7)
Requirement already satisfied: urllib3<3,>=1.21.1 in
/usr/local/lib/python3.10/dist-packages (from requests>=2.23.0-
>ultralytics) (2.0.7)
Requirement already satisfied: certifi>=2017.4.17 in
/usr/local/lib/python3.10/dist-packages (from requests>=2.23.0-
>ultralytics) (2024.7.4)
Requirement already satisfied: filelock in
/usr/local/lib/python3.10/dist-packages (from torch>=1.8.0-
>ultralytics) (3.15.4)
Requirement already satisfied: typing-extensions>=4.8.0 in
/usr/local/lib/python3.10/dist-packages (from torch>=1.8.0-
>ultralytics) (4.12.2)
Requirement already satisfied: sympy in
/usr/local/lib/python3.10/dist-packages (from torch>=1.8.0-
>ultralytics) (1.13.0)
Requirement already satisfied: networkx in
/usr/local/lib/python3.10/dist-packages (from torch>=1.8.0-
>ultralytics) (3.3)
Requirement already satisfied: jinja2 in
/usr/local/lib/python3.10/dist-packages (from torch>=1.8.0-
>ultralytics) (3.1.4)
Requirement already satisfied: fsspec in
/usr/local/lib/python3.10/dist-packages (from torch>=1.8.0-
>ultralytics) (2023.6.0)
Collecting nvidia-cuda-nvrtc-cu12==12.1.105 (from torch>=1.8.0-
>ultralytics)
  Using cached nvidia cuda nvrtc cu12-12.1.105-py3-none-
manylinux1 x86 64.whl (23.7 MB)
```

```
Collecting nvidia-cuda-runtime-cul2==12.1.105 (from torch>=1.8.0-
>ultralytics)
  Using cached nvidia cuda runtime cu12-12.1.105-py3-none-
manylinux1 x86 64.whl (823 kB)
Collecting nvidia-cuda-cupti-cu12==12.1.105 (from torch>=1.8.0-
>ultralytics)
  Using cached nvidia cuda cupti cu12-12.1.105-py3-none-
manylinux1 x86 64.whl (14.1 MB)
Collecting nvidia-cudnn-cu12==8.9.2.26 (from torch>=1.8.0-
>ultralytics)
  Using cached nvidia cudnn cu12-8.9.2.26-py3-none-
manylinux1 x86 64.whl (731.7 MB)
Collecting nvidia-cublas-cu12==12.1.3.1 (from torch>=1.8.0-
>ultralytics)
  Using cached nvidia cublas cu12-12.1.3.1-py3-none-
manylinux1 x86 64.whl (410.6 MB)
Collecting nvidia-cufft-cu12==11.0.2.54 (from torch>=1.8.0-
>ultralytics)
  Using cached nvidia cufft cu12-11.0.2.54-py3-none-
manylinux1 x86 64.whl (121.6 MB)
Collecting nvidia-curand-cu12==10.3.2.106 (from torch>=1.8.0-
>ultralytics)
  Using cached nvidia curand cu12-10.3.2.106-py3-none-
manylinux1 x86 64.whl (56.5 MB)
Collecting nvidia-cusolver-cu12==11.4.5.107 (from torch>=1.8.0-
>ultralytics)
  Using cached nvidia_cusolver_cu12-11.4.5.107-py3-none-
manylinux1 x86 64.whl (124.2 MB)
Collecting nvidia-cusparse-cu12==12.1.0.106 (from torch>=1.8.0-
>ultralytics)
  Using cached nvidia cusparse cu12-12.1.0.106-py3-none-
manylinux1 x86 64.whl (196.0 MB)
Collecting nvidia-nccl-cu12==2.20.5 (from torch>=1.8.0->ultralytics)
  Using cached nvidia nccl cu12-2.20.5-py3-none-
manylinux2014 x86 64.whl (176.2 MB)
Collecting nvidia-nvtx-cu12==12.1.105 (from torch>=1.8.0->ultralytics)
  Using cached nvidia nvtx cu12-12.1.105-py3-none-
manylinux1 x86 64.whl (99 kB)
Requirement already satisfied: triton==2.3.0 in
/usr/local/lib/python3.10/dist-packages (from torch>=1.8.0-
>ultralytics) (2.3.0)
Collecting nvidia-nvjitlink-cu12 (from nvidia-cusolver-
cu12==11.4.5.107->torch>=1.8.0->ultralytics)
  Downloading nvidia nvjitlink cu12-12.5.82-py3-none-
manylinux2014 x86 64.whl (21.3 MB)
                                    ---- 21.3/21.3 MB 72.9 MB/s eta
0:00:00
ent already satisfied: six>=1.5 in /usr/local/lib/python3.10/dist-
packages (from python-dateutil>=2.7->matplotlib>=3.3.0->ultralytics)
```

```
(1.16.0)
Requirement already satisfied: MarkupSafe>=2.0 in
/usr/local/lib/python3.10/dist-packages (from jinja2->torch>=1.8.0-
>ultralytics) (2.1.5)
Requirement already satisfied: mpmath<1.4,>=1.1.0 in
/usr/local/lib/python3.10/dist-packages (from sympy->torch>=1.8.0-
>ultralytics) (1.3.0)
Installing collected packages: nvidia-nvtx-cu12, nvidia-nvjitlink-
cu12, nvidia-nccl-cu12, nvidia-curand-cu12, nvidia-cufft-cu12, nvidia-
cuda-runtime-cu12, nvidia-cuda-nvrtc-cu12, nvidia-cuda-cupti-cu12,
nvidia-cublas-cu12, nvidia-cusparse-cu12, nvidia-cudnn-cu12, nvidia-
cusolver-cu12, ultralytics-thop, ultralytics
Successfully installed nvidia-cublas-cu12-12.1.3.1 nvidia-cuda-cupti-
cu12-12.1.105 nvidia-cuda-nvrtc-cu12-12.1.105 nvidia-cuda-runtime-
cu12-12.1.105 nvidia-cudnn-cu12-8.9.2.26 nvidia-cufft-cu12-11.0.2.54
nvidia-curand-cu12-10.3.2.106 nvidia-cusolver-cu12-11.4.5.107 nvidia-
cusparse-cu12-12.1.0.106 nvidia-nccl-cu12-2.20.5 nvidia-nvjitlink-
cu12-12.5.82 nvidia-nvtx-cu12-12.1.105 ultralytics-8.2.58 ultralytics-
thop-2.0.0
from ultralytics import YOLO
#coca-cola
!pip install roboflow
from roboflow import Roboflow
rf = Roboflow(api kev="KI88eJaCYI6zBu0oLLvP")
project = rf.workspace("test01-fr735").project("brands-qv6fs")
version = project.version(1)
dataset = version.download("yolov8")
Requirement already satisfied: roboflow in
/usr/local/lib/python3.10/dist-packages (1.1.34)
Requirement already satisfied: certifi in
/usr/local/lib/python3.10/dist-packages (from roboflow) (2024.7.4)
Requirement already satisfied: chardet==4.0.0 in
/usr/local/lib/python3.10/dist-packages (from roboflow) (4.0.0)
Requirement already satisfied: idna==3.7 in
/usr/local/lib/python3.10/dist-packages (from roboflow) (3.7)
Requirement already satisfied: cycler in
/usr/local/lib/python3.10/dist-packages (from roboflow) (0.12.1)
Requirement already satisfied: kiwisolver>=1.3.1 in
/usr/local/lib/python3.10/dist-packages (from roboflow) (1.4.5)
Requirement already satisfied: matplotlib in
/usr/local/lib/python3.10/dist-packages (from roboflow) (3.7.1)
Requirement already satisfied: numpy>=1.18.5 in
/usr/local/lib/python3.10/dist-packages (from roboflow) (1.25.2)
Requirement already satisfied: opency-python-headless==4.10.0.84 in
/usr/local/lib/python3.10/dist-packages (from roboflow) (4.10.0.84)
Requirement already satisfied: Pillow>=7.1.2 in
/usr/local/lib/python3.10/dist-packages (from roboflow) (9.4.0)
```

```
Requirement already satisfied: python-dateutil in
/usr/local/lib/python3.10/dist-packages (from roboflow) (2.8.2)
Requirement already satisfied: python-dotenv in
/usr/local/lib/python3.10/dist-packages (from roboflow) (1.0.1)
Requirement already satisfied: requests in
/usr/local/lib/python3.10/dist-packages (from roboflow) (2.31.0)
Requirement already satisfied: six in /usr/local/lib/python3.10/dist-
packages (from roboflow) (1.16.0)
Requirement already satisfied: urllib3>=1.26.6 in
/usr/local/lib/python3.10/dist-packages (from roboflow) (2.0.7)
Requirement already satisfied: tqdm>=4.41.0 in
/usr/local/lib/python3.10/dist-packages (from roboflow) (4.66.4)
Requirement already satisfied: PyYAML>=5.3.1 in
/usr/local/lib/python3.10/dist-packages (from roboflow) (6.0.1)
Requirement already satisfied: requests-toolbelt in
/usr/local/lib/python3.10/dist-packages (from roboflow) (1.0.0)
Requirement already satisfied: python-magic in
/usr/local/lib/python3.10/dist-packages (from roboflow) (0.4.27)
Requirement already satisfied: contourpy>=1.0.1 in
/usr/local/lib/python3.10/dist-packages (from matplotlib->roboflow)
(1.2.1)
Requirement already satisfied: fonttools>=4.22.0 in
/usr/local/lib/python3.10/dist-packages (from matplotlib->roboflow)
(4.53.1)
Requirement already satisfied: packaging>=20.0 in
/usr/local/lib/python3.10/dist-packages (from matplotlib->roboflow)
Requirement already satisfied: pyparsing>=2.3.1 in
/usr/local/lib/python3.10/dist-packages (from matplotlib->roboflow)
(3.1.2)
Requirement already satisfied: charset-normalizer<4,>=2 in
/usr/local/lib/python3.10/dist-packages (from requests->roboflow)
(3.3.2)
loading Roboflow workspace...
loading Roboflow project...
Dependency ultralytics==8.0.196 is required but found version=8.2.58,
to fix: `pip install ultralytics==8.0.196`
Downloading Dataset Version Zip in Brands-1 to volov8:: 100%
          | 36391/36391 [00:03<00:00, 11114.83it/s]
Extracting Dataset Version Zip to Brands-1 in yolov8:: 100%
         | 1348/1348 [00:00<00:00, 6378.74it/s]
#Counting the total number of images of Coca-cola
import os
```

```
def count(directory):
    return len([name for name in os.listdir(directory) if
os.path.isfile(os.path.join(directory, name))])
# Example directories
train_images_dir = '/content/Brands-1/train/images'
test_images_dir = '/content/Brands-1/test/images'
valid images dir = '/content/Brands-1/valid/images'
# Counting files
num train images = count(train images dir)
num test images = count(test images dir)
num valid images = count(valid images dir)
print(f'Number of train images: {num train images}')
print(f'Number of test images: {num test images}')
print(f'Number of valid images: {num_valid_images}')
Number of train images: 465
Number of test images: 103
Number of valid images: 100
#pepsi
!pip install roboflow
from roboflow import Roboflow
rf = Roboflow(api key="ar6YXxo2p5rvvXWb99V5")
project = rf.workspace("abhijeety").project("brand-detection-s4rpc")
version = project.version(2)
dataset = version.download("yolov8")
Requirement already satisfied: roboflow in
/usr/local/lib/python3.10/dist-packages (1.1.34)
Requirement already satisfied: certifi in
/usr/local/lib/python3.10/dist-packages (from roboflow) (2024.7.4)
Requirement already satisfied: chardet==4.0.0 in
/usr/local/lib/python3.10/dist-packages (from roboflow) (4.0.0)
Requirement already satisfied: idna==3.7 in
/usr/local/lib/python3.10/dist-packages (from roboflow) (3.7)
Requirement already satisfied: cycler in
/usr/local/lib/python3.10/dist-packages (from roboflow) (0.12.1)
Requirement already satisfied: kiwisolver>=1.3.1 in
/usr/local/lib/python3.10/dist-packages (from roboflow) (1.4.5)
Requirement already satisfied: matplotlib in
/usr/local/lib/python3.10/dist-packages (from roboflow) (3.7.1)
Requirement already satisfied: numpy>=1.18.5 in
/usr/local/lib/python3.10/dist-packages (from roboflow) (1.25.2)
Requirement already satisfied: opency-python-headless==4.10.0.84 in
/usr/local/lib/python3.10/dist-packages (from roboflow) (4.10.0.84)
Requirement already satisfied: Pillow>=7.1.2 in
```

```
/usr/local/lib/python3.10/dist-packages (from roboflow) (9.4.0)
Requirement already satisfied: python-dateutil in
/usr/local/lib/python3.10/dist-packages (from roboflow) (2.8.2)
Requirement already satisfied: python-dotenv in
/usr/local/lib/python3.10/dist-packages (from roboflow) (1.0.1)
Requirement already satisfied: requests in
/usr/local/lib/python3.10/dist-packages (from roboflow) (2.31.0)
Requirement already satisfied: six in /usr/local/lib/python3.10/dist-
packages (from roboflow) (1.16.0)
Requirement already satisfied: urllib3>=1.26.6 in
/usr/local/lib/python3.10/dist-packages (from roboflow) (2.0.7)
Requirement already satisfied: tgdm>=4.41.0 in
/usr/local/lib/python3.10/dist-packages (from roboflow) (4.66.4)
Requirement already satisfied: PvYAML>=5.3.1 in
/usr/local/lib/python3.10/dist-packages (from roboflow) (6.0.1)
Requirement already satisfied: requests-toolbelt in
/usr/local/lib/python3.10/dist-packages (from roboflow) (1.0.0)
Requirement already satisfied: python-magic in
/usr/local/lib/python3.10/dist-packages (from roboflow) (0.4.27)
Requirement already satisfied: contourpy>=1.0.1 in
/usr/local/lib/python3.10/dist-packages (from matplotlib->roboflow)
(1.2.1)
Requirement already satisfied: fonttools>=4.22.0 in
/usr/local/lib/python3.10/dist-packages (from matplotlib->roboflow)
(4.53.1)
Requirement already satisfied: packaging>=20.0 in
/usr/local/lib/python3.10/dist-packages (from matplotlib->roboflow)
(24.1)
Requirement already satisfied: pyparsing>=2.3.1 in
/usr/local/lib/python3.10/dist-packages (from matplotlib->roboflow)
(3.1.2)
Requirement already satisfied: charset-normalizer<4,>=2 in
/usr/local/lib/python3.10/dist-packages (from requests->roboflow)
(3.3.2)
loading Roboflow workspace...
loading Roboflow project...
Dependency ultralytics==8.0.196 is required but found version=8.2.58,
to fix: `pip install ultralytics==8.0.196`
Downloading Dataset Version Zip in Brand-Detection-2 to yolov8:: 100%
         | 73650/73650 [00:05<00:00, 14062.27it/s]
Extracting Dataset Version Zip to Brand-Detection-2 in yolov8:: 100%
         | 2556/2556 [00:00<00:00, 5980.60it/s]
#Counting the total number of images of pepsi
import os
```

```
def count(directorv):
    return len([name for name in os.listdir(directory) if
os.path.isfile(os.path.join(directory, name))])
# Example directories
train_images_dir = '/content/Brand-Detection-2/train/images'
test images dir = '/content/Brand-Detection-2/test/images'
valid images dir = '/content/Brand-Detection-2/valid/images'
# Counting files
num train images = count(train images dir)
num test images = count(test images dir)
num valid images = count(valid images dir)
print(f'Number of train images: {num train images}')
print(f'Number of test images: {num test images}')
print(f'Number of valid images: {num valid images}')
Number of train images: 1001
Number of test images: 9
Number of valid images: 262
#As both datasets downloaded as seperate dataset setting one dataset
with one class as 1
import os
def change class id(directory, old id=0, new id=1):
    for filename in os.listdir(directory):
        if filename.endswith('.txt'):
            filepath = os.path.join(directory, filename)
            with open(filepath, 'r') as file:
                lines = file.readlines()
            new lines = []
            for line in lines:
                parts = line.strip().split()
                if parts[0] == str(old id):
                    parts[0] = str(new id)
                new_lines.append(' '.join(parts))
            with open(filepath, 'w') as file:
                file.write('\n'.join(new_lines))
            print(f'Updated {filename}')
label files directory = '/content/Brands-1/train/labels'
change class id(label files directory)
Updated 530430290 jpg.rf.9a7c90bda59f8c0b5ca02567b8087b0a.txt
Updated shiloh-dankert-8XqDq00Zxq4-
```

```
unsplash ipg.rf.c04199dd5314cabcc2bf9b7f44ffb59c.txt
Updated Image 37 png.rf.80562b698a3025c4e1f181fb2da0a241.txt
Updated Image_23_jpg.rf.6492fa694bdd14930165bca13d8527f3.txt
Updated Image 104 jpg.rf.417bbb754f1caa880b07a6aee75bd551.txt
Updated Image 168 jpg.rf.14a08b678e6f06b7e68062caa3364577.txt
Updated artem-beliaikin-jlWoIsNTKjA-
unsplash jpg.rf.d75cde52a95097098353bc5cbee146ff.txt
Updated 1529201482 jpg.rf.0ec63f558e1b03ef0231f23e48bd6137.txt
Updated gabriel-oppenheimer-xwRCJWbIN0k-
unsplash jpg.rf.0f209817176777bd5f7f6c69a6d305bb.txt
Updated Image 65 jpg.rf.49f90bb38c1f0a534338adcea53b86b4.txt
Updated Image_76_jpg.rf.486a4833d6e080ecd498f2e3d732a282.txt
Updated Image 30 jpg.rf.75aala5eefdb680c327e4081658ed93a.txt
Updated laura-chouette-55xBt28R6vc-
unsplash jpg.rf.fa915fa249270e6651c2b80042e019d2.txt
Updated Image 39 jpg.rf.cbae858ec4352d50c0e2d3845d5d7f82.txt
Updated caitlyn-hastings-EMvaZsixiC8-
unsplash jpg.rf.9882c11144856bbfbb6648a7ecd8ec33.txt
Updated Image 120 jpg.rf.a22914afbe5e7147622909e75eacabc1.txt
Updated nathan-dumlao-vRDsrw0l G4-
unsplash jpg.rf.eb52e858ab152a6d53b964e13e3e5837.txt
Updated Image 74 jpg.rf.13045375561f696a6a7adeeb55e13708.txt
Updated Image 100 jpg.rf.5cb3519f50df9bd93ce4f84c5395f171.txt
Updated Image 92 jpg.rf.07acc6ed2c1728951a8c1c82a8ec7193.txt
Updated mahbod-akhzami-VM6uuMFPIGM-
unsplash jpg.rf.16ad21c3d37de10478a1fa4a0387cad3.txt
Updated 4958082059 jpg.rf.d8298ae57eab146f4b71c82f9158ba10.txt
Updated Image 113 jpg.rf.50c2ab2b50f02f25fb1366b7bc522a18.txt
Updated h-r-kocher-iJE8yhnvtco-
unsplash jpg.rf.cab869f64b61165c95c7cd4379f808aa.txt
Updated Screenshot-2024-02-20-at-9-27-22-
PM png.rf.66b9720abb91cfc69c9b2fe9f6a0f183.txt
Updated Image 88 jpg.rf.72b56b4cb6b9c35b9827e5d74bed54a6.txt
Updated Image 45 jpg.rf.e7b9afa383b751a8062dd8b146631563.txt
Updated Image 107 png.rf.d1fb575eaba6a72d24eb20b938b8718c.txt
Updated hamza-nouasria-w8dxiHu bNI-
unsplash jpg.rf.23ef0c3956bb839636bd849bf3e1057c.txt
Updated Image 23 jpg.rf.a93dab857884a917d9bb536d6c77c76f.txt
Updated Image 121 jpg.rf.deace004093853d27f4c0e583ed969be.txt
Updated Image 18 jpg.rf.a87a52ec583fc3d4a5eb4d8a47f2f76c.txt
Updated Image 7 jpg.rf.57bf77c8a6909dc60d2d44033a0480c1.txt
Updated Image 116 jpg.rf.a157d516828121e1c48b93f80988bd0a.txt
Updated Image_58_jpg.rf.2e070de31c05a112ea964f6c5128d24e.txt
Updated Image_130_jpg.rf.laff3f12fa2a1cf240ed28bc7d36df85.txt
Updated Image 52 jpg.rf.9a28442e93fe8c380a6136977857f1f7.txt
Updated troy-coroles-v6zBS-eKLIM-
unsplash ipg.rf.de397b3d168261db2ca6db3b70f1e3fb.txt
Updated Image_57_jpg.rf.085456d4d5ff0283494b3948ef0ed3c2.txt
Updated Image 22 jpg.rf.221fc8673e66ae6ae788588b4eceb538.txt
```

```
Updated Image_77_jpg.rf.cb1b7fa871a7b3b0013a7d4eea8a2fef.txt
Updated Image 31 jpg.rf.elalb13b877b5a288586a36cfc98a34f.txt
Updated martin-castro-kb lJyVrIPc-
unsplash jpg.rf.466b031dac4f6fdc631ec9d447c49e49.txt
Updated niels-mortensen-Y6L 2jDNwvc-
unsplash jpg.rf.4345211e17fbdd9d064bc6526d4ed7a8.txt
Updated Image 52 jpg.rf.c4670460617e9c0769f538f9690225ed.txt
Updated tom-radetzki-Q9g tPFDKY8-
unsplash jpg.rf.f211ceb534a419e1d39867743cf4e77d.txt
Updated Image 166 jpg.rf.648d7535b7b00043f849e0aa66cd4b41.txt
Updated 82814 jpg.rf.ccba9f295391187a64879e4e2470464a.txt
Updated Image_34_jpg.rf.leaddd9b0731939205f1f34442c193f3.txt
Updated Image_57_jpg.rf.78e3b38d3dd24414fbd9191b1ed32b9a.txt
Updated Image 40 jpg.rf.7bcf6c0a9ff38ca53de294f6b96139fa.txt
Updated Image_132_jpg.rf.e24a74aced72f9984ee51b9676e8f8a5.txt
Updated Image 31 jpg.rf.26836a3391574cf26c6570f7bfe2ce66.txt
Updated Image 69 jpg.rf.288cbc9f53f2bbfc92171c11bd3c21d3.txt
Updated 2822544964_jpg.rf.e9f814e68830168791cc647d1f50b023.txt
Updated Image 110 jpg.rf.785651b27be6881bddfb02d57c3483a2.txt
Updated Image_67_jpg.rf.ba86d0a2bd0005fe9e258cfc9167ee3a.txt
Updated Image 66 jpg.rf.357c7732b3c6c0a1b287c1fe203e70c2.txt
Updated Image 47 jpg.rf.e72belae40f720d463acb6175e584fd7.txt
Updated Image 47 jpg.rf.323494038b0942b7ef0bcf2774964248.txt
Updated Image_53_jpg.rf.2a59da4ea7eadae73578ae58d238695b.txt
Updated Image_103_jpg.rf.a9f41744687cc27bde91ce9898fcd77f.txt
Updated Image 95 jpeg.rf.9181df42156de22b250c39221e919072.txt
Updated Image 30 jpg.rf.a84fb06c08aa37e7c3d2aa09a52e0e00.txt
Updated Image 80 png.rf.23c8a89fdf56c1406ef708ceaaffd260.txt
Updated 18945268_jpg.rf.fc95c8c69e532c3f620b7600182aaeb9.txt
Updated Image_45_jpg.rf.cdb3f587c636928b7d4dc89ee16df2d3.txt
Updated Image 199 jpg.rf.6190456e9e6e1cf9dcb5ffff88bb9946.txt
Updated Image 49 jpg.rf.839ba805cfff1f172747bd8775b7bbfd.txt
Updated Image 96 png.rf.2856119b3702fdf64c4f8bfcaba034ac.txt
Updated Image 1 jpg.rf.5db6a0cdba6c6645fa9008b10287ee85.txt
Updated lucas-hoang-35hdi9yk3eM-
unsplash jpg.rf.f4788ccd1f4f52054e6a97918cf56b51.txt
Updated Image 170 jpg.rf.bb773302e67e23db1e07a31647770fb8.txt
Updated Image 63 png.rf.cc590f3f5b3bc2d7ceabc2a68bb7e4ca.txt
Updated Image 26 png.rf.4a236f13f9bd84d8abeb9d8a540050c4.txt
Updated Image 55 jpg.rf.541ea272b627839367d057a9d87569ff.txt
Updated gaby-yerden- leo07FPt8Y-
unsplash jpg.rf.c99a505f5ee465ca5774a3974d652415.txt
Updated 2962045_jpg.rf.fc21fcb0539bc6157641b067dc4a0be3.txt
Updated Image 46_jpg.rf.9510cd9530c4cbbb423edccb44eb0821.txt
Updated Image 48 jpeg.rf.fb3db2aed90cd4d4a589b301513c6fe1.txt
Updated Image_44_jpg.rf.a88668a3fbb6af7c5789479c42980bc8.txt
Updated Image 48 jpg.rf.ed8c67599a60e264746a4332bb68223b.txt
Updated 4789543408_jpg.rf.df1dc3a94462c08f1605fe3429329a2f.txt
Updated 2089678058 jpg.rf.b7545f99dc2de942244db2164fed804f.txt
```

```
Updated Image 11 jpg.rf.02433e127d8be861049d556968f43e09.txt
Updated adam-birkett-eL0INEtrdP0-
unsplash jpg.rf.aa19debbe186cb373bdfcb343141dbad.txt
Updated Image 3 jpg.rf.7d608fd41f7e43ff83bf84276fc339a3.txt
Updated Image_87_jpg.rf.caba40eff6240bb54ae7d22541d5385b.txt
Updated 233507685_jpg.rf.fc05aef61f07ef47f12a14ca337beafe.txt
Updated tobi-law-4DJ6m 1V71o-
unsplash jpg.rf.48db23f6dc43986b69ac2744abaf66e2.txt
Updated Image 73 jpg.rf.8906bdf4008692a761aeaf4dacc63aac.txt
Updated Image 90 jpg.rf.e28061f7e13c93f4233d6ce031bdc4c6.txt
Updated Image_13_jpg.rf.bdc6d2244aed91f5e9c7ae07f3b224a1.txt
Updated 128500912_jpg.rf.81ace99796b2e41cfde76964b18dd4a2.txt
Updated 2935443274_jpg.rf.00cacb8a5052bf5c579cc16221e38881.txt
Updated Image 109 jpg.rf.9d35490a405d2f72654172ea26e28e3f.txt
Updated kevin-turcios-DYpV lLuuWk-
unsplash jpg.rf.24f0e68c21b5316bf5b80ff75e4ce270.txt
Updated Image 108 jpg.rf.5c09dc83adfe72a4fbfddb5252a6851d.txt
Updated Screenshot-2024-02-20-at-9-23-20-
PM png.rf.42b8a33cec3ea8c40c4c42eee32451c0.txt
Updated Image 61 jpg.rf.48b09fe0778a7df6ca97f102f1c0c70f.txt
Updated kaleb-tapp-ivk2IwN11o4-
unsplash jpg.rf.0d9007cd62b7c493fb639ab3abb5ffb8.txt
Updated Image 126 jpg.rf.32392edd4305be7a6e3901b25b622876.txt
Updated Screenshot-2024-02-20-at-9-24-56-
PM png.rf.920a9ea1992cfcb1d119f1eff20fbb92.txt
Updated Image social 15 jpg.rf.4aff3a936f1516608a8ba5812ccd8181.txt
Updated Image_38_jpg.rf.00b8e6e03866161727f3628b3077dfc8.txt
Updated Image 73 jpg.rf.70054c1d423e9cc0c42417941295fdfb.txt
Updated Image_30_jpg.rf.e8723d903f705a1569959784b38aa93d.txt
Updated Image_99_jpg.rf.aa9d7e0aeeeedeae77008854d0f31301.txt
Updated 1816420350 jpg.rf.8756fcda5d5debf493cfb50a8aa544f0.txt
Updated Image_118_jpg.rf.5803f7b1df0ce28f8ef6c127dc852152.txt
Updated 1354674694 jpg.rf.31a0741c3751016cf6418aa83d78287a.txt
Updated Image 137 jpg.rf.80a1c713bebf15458c0c1275fcc7b020.txt
Updated 3118203914 jpg.rf.fcd44ddf3fbead0e0019dff253acdeb7.txt
Updated Image 44 jpg.rf.a3f43e6f376a63ba6dd7a77f55cb207c.txt
Updated giovanna-gomes-GpEiNmK1Z7U-
unsplash jpg.rf.7f05ba76ffe587ab34a1261e1441e3ff.txt
Updated egor-myznik-LveKaliFfEQ-
unsplash jpg.rf.0c9afd64c270c03ebb2280b29fa6afaa.txt
Updated Image 124 jpg.rf.7ca438b000e89503e2143b5984ace644.txt
Updated Image 136 jpg.rf.621128b35c618971c78d827d5a23e8b7.txt
Updated 4919455893_jpg.rf.67d84e37f20257d0cde1303b3cadd999.txt
Updated 2349836195 jpg.rf.d3a89d72c10cfc16a9b639934c6aeb88.txt
Updated Image 135 jpg.rf.257eb64dad5d78530865fd2cce6d40f7.txt
Updated cristi-ursea-hU7QWWLihVA-
unsplash ipg.rf.fcb1ba90373ae123a171df4ac1145d89.txt
Updated Image 38 jpg.rf.22bf3bf886afe1d069ea4ad6c47b494a.txt
Updated Image 180 png.rf.f5b6f7535401fea64ca0496d407fb878.txt
```

```
Updated Image_42_jpg.rf.859e03ea1ce4de6c47602938ac7e156a.txt
Updated Image 73 jpg.rf.8f68bb40854e4a041ea1b1f1720cb411.txt
Updated Screenshot-2024-02-20-at-9-22-49-
PM png.rf.042b8154ed89d8e4642af44dbbf61126.txt
Updated Image 116 jpg.rf.ab7b6f6755206defe1c57cee81e891ef.txt
Updated Image_125_jpg.rf.487fb7a4291ecce22a018c7cb6892843.txt
Updated 4363949503 jpg.rf.2e6859bae0482e07024b6d5329f10ddb.txt
Updated Image 121 jpg.rf.d7c7e81088176548909135d5d1eab638.txt
Updated Image 70 jpg.rf.3ebc2ac6491a11080c93e0568fbbbcf1.txt
Updated Image 12 jpg.rf.5373fcalda90d10138d9b5a6e89fd2d9.txt
Updated Image_25_jpg.rf.f13f92586eb207e6fb0677ac05fb16a8.txt
Updated Image_84_jpg.rf.67aa92a2b0ac6ea55fa5d2332bc88b60.txt
Updated 2601559563_jpg.rf.34a75e72fe5f8eb61c02e261eb301c7e.txt
Updated Image 141 jpg.rf.3ebbde51c7e7825f99c4156bef6b12f6.txt
Updated 4451970390_jpg.rf.794e60c9a711fdb55cdf92c31a77b274.txt
Updated Image 130_jpg.rf.9c7cf1e3ed8557e8a38bdb6d35a3ca59.txt
Updated 5037838477_jpg.rf.6f2b48a3f0ba11f0e788a8462316db44.txt
Updated nikolai-chernichenko-7srFcrTcf3Y-
unsplash jpg.rf.7c994a3336ba15a27142aa03be005be5.txt
Updated Screenshot-2024-02-20-at-9-24-24-
PM png.rf.4a0aa070935186d08421fca212804c69.txt
Updated ruth-paradis-faYrny7Gl0o-
unsplash jpg.rf.cc4411d748e7b7a153bedb5b7ca71396.txt
Updated Screenshot-2024-02-20-at-9-26-26-
PM png.rf.8b8bb5797b60c617b8ee592af2c995cb.txt
Updated Image 62 jpg.rf.5b951297c59c948aa27564cfa923155b.txt
Updated Image_32_jpg.rf.6618045d717498c228134df31372be2b.txt
Updated eugene-chystiakov-ZsquxMfjAls-
unsplash jpg.rf.49af7da57b116de1affc41cadac3de71.txt
Updated Image 45 png.rf.c6add9e0954fed004d9d5221ab58a173.txt
Updated Image 44 png.rf.0ba8b8ed1c86b064de720ff4a751d860.txt
Updated 4714878110 jpg.rf.127c937fbe5b2abaacb8e08ca14b937b.txt
Updated Image 103 png.rf.bdf8a2a8dcc39a6e3052c8c7a1e1f4f3.txt
Updated Image social 18 jpg.rf.cb6e1d67866bc6f084db3cdd44252c4d.txt
Updated Image 198 jpg.rf.6196b253fdf74602d299c247cd7b5436.txt
Updated Image 42 jpg.rf.d8dc806061743aaa50bd2ceb2153239b.txt
Updated amos-bar-zeev-3yzE1SUfbwY-
unsplash jpg.rf.11397944cf5eedfb148fb264a38090d1.txt
Updated 3828134757 jpg.rf.8d7dd3e86ecf3ec4fab716a750a63753.txt
Updated ray-zhuang-RSBLEPVcxL8-
unsplash jpg.rf.9a2bee6983a828109e3bf26eb01226bd.txt
Updated Image 76 jpg.rf.90469bbca7fd69d732a4785fe27c7622.txt
Updated Image_112_jpg.rf.da6d3bf0b1a4a6ea7736fcb584468f2c.txt
Updated jan-bottinger-rEF2UzBmc I-
unsplash jpg.rf.42f344f825dd7edf72088d785632cff5.txt
Updated Image_71_jpg.rf.47e3097f2bb5740321f9e410638f15f8.txt
Updated 4064978015 jpg.rf.0dc24d27226b46eae7adec676833facf.txt
Updated Image 64 jpg.rf.c5a069105fac4337b90a630541d92ed8.txt
Updated Image 95 jpg.rf.9df9ba9a10496d92810179e65bc0df77.txt
```

```
Updated Image 98 jpg.rf.1813805ff2ad74cdf99df5a827c3b00b.txt
Updated 3887773624 jpg.rf.ebd3a05250adbdb65ebbe29e7bd7364f.txt
Updated Image 93 jpg.rf.0a2408504cd3875a728b8d805b74072c.txt
Updated Screenshot-2024-02-20-at-9-27-40-
PM png.rf.aa3614b0f3cea2b6e90407ded671ffcf.txt
Updated 4032505835_jpg.rf.66d85d87ac3da1384ec271ab1fcc49c6.txt
Updated mariah-hewines-9No3mautCZk-
unsplash jpg.rf.a2018fe9e00872d19e1933ca1beca42e.txt
Updated Image 182 jpg.rf.384f5e6ae0015247716a5e261e4557ec.txt
Updated andrey-ilkevich-Qvnohn4GyJA-
unsplash jpg.rf.66263305d997adaffe7fbc1f5ddcc69d.txt
Updated Image_19_jpg.rf.b7347127dc623855eb082529d2a80a68.txt
Updated Image 129 jpg.rf.1e9d26782f80bf469af7cb58c641d3db.txt
Updated Image 44 jpg.rf.dcdad4cbd3cb7d54a43be725e214acc2.txt
Updated Image 92 jpg.rf.1c144f96c17bd80a830db492cad0f333.txt
Updated 3666600356_jpg.rf.98714d59d8de05de37b660ebce457a19.txt
Updated Image 26 jpg.rf.5fd12f5c758b8a71eca454b6f3c7ec78.txt
Updated Image_69_jpeg.rf.93b6be077a04b52aae5d30efe20ef2ed.txt
Updated Image 136 jpg.rf.9db8a9596e31cbb2876e744f9cd80d59.txt
Updated roy-perez-FDEe44JpcSo-
unsplash jpg.rf.bdacb63e63543c873a7030aa03bf883a.txt
Updated Image 77 jpg.rf.249cdf7215262023f2695565217fde54.txt
Updated Image 16 jpg.rf.c2383b86a169b9142166da4b7129a540.txt
Updated Image 11 jpg.rf.ld7e3b742dfle9a5b4bab2e1c8b2bbc1.txt
Updated thomas-charters-XGwwR-WD Gs-
unsplash jpg.rf.9340be7d829c946c6730a5b7468494d2.txt
Updated Image 45 jpg.rf.a8d29934d3c053335a10ed1fa8b9b104.txt
Updated taras-chernus-xJQK-aKQsUc-
unsplash jpg.rf.623f43b8bc0db6809f93b8d5cc97e722.txt
Updated bernard-chama-208Ph 6WAsY-
unsplash jpg.rf.02b3a59a10b34c302253fa31da028046.txt
Updated 3330936910 jpg.rf.8a120742214c0ff4667ffe8a88a0e0aa.txt
Updated Image 29 jpg.rf.2886806561059e11db6d61095288fbfa.txt
Updated Image social 21 png.rf.a838a36d3e16cccfb2579ea090825338.txt
Updated Image 134 jpg.rf.d15784fdf450026979d514cec7312df7.txt
Updated tycho-atsma-68BBDyysBgc-
unsplash jpg.rf.7e98a5ef202bf7db78efbb211e0e0938.txt
Updated Image 25 png.rf.c22f4b4a653fa07068209a64e1f22b36.txt
Updated mint-rhino-0BZT0x35s3M-
unsplash jpg.rf.20fcf052a544f74994890f11a4ad2966.txt
Updated Image 60 jpg.rf.c3ed952778cf371a4e39274ac038ea5a.txt
Updated Image 32 jpg.rf.d81b594e3f7fc91320d3e3c395b74c25.txt
Updated Image_64_jpg.rf.71d06136df28f332ba5be697b84c1c1d.txt
Updated Image_85_jpg.rf.4614f106bca4d166005c681f0428d8a7.txt
Updated Image_33_jpg.rf.f2591525f93340313c91bee70f264710.txt
Updated Image_125_jpg.rf.589ca694856c20b1dc89378aa8bd5027.txt
Updated Image 115 jpg.rf.fb18f32f8b7faec8d40d9ac47201c87a.txt
Updated 871899760 jpg.rf.13c17f88ed58c223cf4ddfcdd2ae7752.txt
Updated levi-ventura-zWnRzFs1s3A-
```

```
unsplash ipg.rf.8a923f7e5faaec83071f395974419df8.txt
Updated Image 85 jpg.rf.10e6a694fd4be69795605c0d9408f01c.txt
Updated pavel-nekoranec-bKIpLNjXqxU-
unsplash jpg.rf.a936be5141dde8116d9462aab99679f2.txt
Updated Image 28 jpg.rf.c97228794709c1623123bb964b23b06f.txt
Updated colin-lloyd-1UBuar2kdIU-
unsplash jpg.rf.813a3e92064231c5153ab9c475af8fc0.txt
Updated eric-muhr-PnvFVVkS9vU-
unsplash jpg.rf.92fadca92872bf7f1b2389a66e6109fb.txt
Updated michael-glazier-BvKNzVp7K8o-
unsplash jpg.rf.7fbc8cc63d4e5da0d9be7d662cba5362.txt
Updated sezer-arslan-uf-WzuNOG7g-
unsplash_jpg.rf.39914aed653ff583785c9c3c12588cbd.txt
Updated Image 123 jpg.rf.ebeb7f93b66ad2b058318fc9348ec1ba.txt
Updated Image 71 jpg.rf.361a45f2294ebb3648ea23ecfc367811.txt
Updated max-bovkun-PG8w-D9AMp0-
unsplash_jpg.rf.696c2ea01c3d1dea228d872749a2e1a6.txt
Updated Image_101_jpg.rf.014ef7c7da0c33ebc79c2db5eb4f31fa.txt
Updated Image 22 jpg.rf.f2ce9dd3493918e328564349b39e182a.txt
Updated Image 6 jpg.rf.11d3dbf23accc2978998dd38b6aa11f0.txt
Updated laura-chouette-ghEeGg3IyRk-
unsplash jpg.rf.6afda85edded1ef0649024e0728af5f7.txt
Updated Image 46 jpg.rf.95c9ede9a53a4d564012db9f411e69f0.txt
Updated Image 133 jpg.rf.2bbbc8af469c8724ed64ca11677efdbb.txt
Updated Image 38 png.rf.a9def8ad18b0fc747e43cb0f9d51234e.txt
Updated Image 81 png.rf.e11f471ee0fc39e015fa9d389f6bb3ee.txt
Updated Image 98 jpg.rf.9411a4bc8ad2a2bfb468f35827ba985c.txt
Updated Image 10 jpg.rf.6840618eb219726844b39ef54e6a0f3b.txt
Updated Image_59_jpg.rf.1340f87733a6e67ec190d7dc1496a905.txt
Updated Image_128_jpg.rf.c27e616efcf9b76404f734038b6d379a.txt
Updated Image 127 jpg.rf.8eaad226021b2ef692efef30daba4068.txt
Updated 3103636207_jpg.rf.f8eb67ce183e5e1398913872f9e3b7a1.txt
Updated Image 9 jpg.rf.29cd382b23f198dc575b78b526275137.txt
Updated Image social 24 jpg.rf.d4f08d23a85e9d924a42295347ac2d19.txt
Updated Image 140 png.rf.403c408b7eff23cd4728298baeb0a7eb.txt
Updated Image 10 jpg.rf.48bc9a687776456a99143b510b95d60c.txt
Updated Image 114 jpg.rf.47ea52b9f6da64e99c180181ce3aad55.txt
Updated Image 35 png.rf.e6ca6def6b3e5726f7f2566dd0a1f034.txt
Updated brandi-alexandra-Agegen7Pv60-
unsplash jpg.rf.c07184264d0cddd34a3626a37f28fa07.txt
Updated jim-petkiewicz-0jR utUgABk-
unsplash jpg.rf.193fc909097749666914894e5af1e449.txt
Updated Image_20_jpg.rf.50786ca9500bd26ec1f34b902bce19ca.txt
Updated Screenshot-2024-02-20-at-9-27-31-
PM png.rf.bb114e9070349277bf8f75e4cb5f3e38.txt
Updated 4594457340_jpg.rf.e6f11e6ba444df32cd9c8fab77d29e86.txt
Updated Image social 10 jpg.rf.a4980c2a3db36fe7d8f7550b3b5a326d.txt
Updated Image 118 png.rf.6074fea590df5d050cbab1172a6bb6f1.txt
Updated Image 112 png.rf.a35d233fe8132bd70ce1fade0441ac2f.txt
```

```
Updated tobi-law-FPlGrUU4vmo-
unsplash jpg.rf.9fedf8e0553d81a88eb5085c0cdc1fca.txt
Updated Image social 1 png.rf.4cefbb668211e76b9950f04ec8f81d01.txt
Updated vera-davidova-Nshh4mvlEeo-
unsplash jpg.rf.afcede26fe5fd85f1768cda8a6462d64.txt
Updated Image_138_jpg.rf.5a4e38dafa57966cec72625579577b6c.txt
Updated Image 106 jpg.rf.0f08ec88de89b46815f7cead1cbcfe22.txt
Updated Image 36 jpg.rf.1b456f173516d05117783200ca507d6a.txt
Updated Image 40 jpg.rf.9087f847c72dcf1590050d6dee1ae327.txt
Updated olena-sergienko-Db5j3DJL0YI-
unsplash jpg.rf.90582f2b12da338d743b6156aad51df4.txt
Updated Image 93 jpg.rf.5b2bf3da0e8de4e8289e40603dd0328c.txt
Updated Image_105_jpg.rf.33a58fcf5873f8f9049e9ffd28db7b29.txt
Updated Image 59 jpg.rf.5aefa2f3d7632a7fe994199e768dd663.txt
Updated Image_4_jpg.rf.41bc5433bb0f6cfd89d7d2da79e602e8.txt
Updated Image 40 jpg.rf.94ff37f498ee4312ae4248abb18ddb61.txt
Updated 3662212543 jpg.rf.8a226f2370e54757ca86ffe62769cfle.txt
Updated 4626084981_jpg.rf.fd7d7bb590736fc153cacddcef66ec3e.txt
Updated Image 95 JPG.rf.e6a41b9bea1090e2c08438781715ede5.txt
Updated 4623316646 jpg.rf.3e9ee81274411f3a90bec6d2ccab4906.txt
Updated Image 52 jpg.rf.b47b58133306704730fd3456c904e47d.txt
Updated afif-kusuma-XduXt41F0U4-
unsplash jpg.rf.7fd1887224a3314b91d1da7e36827863.txt
Updated Image 165 jpg.rf.9ad1360cebea7329407a248a4bb9770d.txt
Updated Image_96_jpg.rf.27369cb5f293b1ab9774534ca20cd20b.txt
Updated Image 21 jpg.rf.d73f9f568da46b08c9aebe82fd82308f.txt
Updated 2614350090 jpg.rf.3259e656b1502b353fbb3f1c70b53ea7.txt
Updated Image 20 jpg.rf.c5b8187a14eca24d71fe3434fefe698b.txt
Updated gaby-yerden-VBy12TLMPLg-
unsplash jpg.rf.85843e554afeb06406c5b4d9dbcd858a.txt
Updated Image 151 png.rf.39d31bcb9f902face56bc73e76eca878.txt
Updated Image_26_jpg.rf.8c59507aff92f0f437352d68e8857de0.txt
Updated 4569812618_jpg.rf.8683434499e761fe1e06a339ca91160e.txt
Updated Image 44 jpg.rf.11ca4e25c6e5d1dd4038fa8fd61252b6.txt
Updated paul-gaudriault-XWdRIu-Rk 0-
unsplash jpg.rf.ff8839877f0ae89f8f656e74d5954481.txt
Updated Image 167 jpg.rf.c7fd909447431d0ba05119e6d140618d.txt
Updated Image 70 jpg.rf.dfacd323b6440b2740627367b6fd1f0d.txt
Updated Image_91_jpg.rf.f59453cde44bc78aeb5ad3704facfa77.txt
Updated Image 64 jpeg.rf.44761864e5ebcd1bebaaf2e1c71b82e1.txt
Updated jeanson-wong-M-RTw6x5kzw-
unsplash jpg.rf.1930f519c0ead061988dc3887f441da7.txt
Updated Image 36 png.rf.71de8b89501b600d832aa5f03dac34b9.txt
Updated Image 135 jpg.rf.200dd1860e4d62df41d3a2f3c39ae663.txt
Updated Image 51 png.rf.7634ae44367bb843a319c89a9037247e.txt
Updated Image_77_jpg.rf.723215e031db6aa6a1f052e0cba98046.txt
Updated Image 29 jpg.rf.80d596f51eb8b747b25af02c87d0dfb8.txt
Updated Image 62 jpg.rf.2a427d978495fb1f951e61cbde2e680b.txt
Updated 4828870359 jpg.rf.0c543058af1043615798383251c6b68c.txt
```

```
Updated 1330788745 jpg.rf.b0f9f9e12576c8e32b28b629136bb702.txt
Updated Image 65 jpg.rf.71581a6b3c3139fa4252953525f7111a.txt
Updated 5066016550 jpg.rf.97438f993ada061228077e238d30671b.txt
Updated Image 18 jpg.rf.4a25f3567f8059e32d24e2cc821a29af.txt
Updated Image 24 jpg.rf.e0cc6db1a0aea221426ddc184d2cecf5.txt
Updated Image_27_jpg.rf.a5adb7b5890e421296fa702fe3593dd4.txt
Updated Image 105 jpg.rf.73ad8c3cca9ddf214b4615e4afaa066b.txt
Updated Image 57 jpg.rf.f229ae08c479b95b74564af47bcfe32d.txt
Updated artem-beliaikin-80Qy24h6G5g-
unsplash jpg.rf.133ef28940cb51c30b9318c48087a094.txt
Updated Image 43 png.rf.e25eef50169cdf9e546b221bd644143d.txt
Updated Image_37_jpg.rf.bac1129d9f68cb9c7c6e6eaf96c6c946.txt
Updated Image_33_jpg.rf.ca6a16c03fff18f8a4524a07519a646b.txt
Updated Image 88 jpg.rf.8f783e8211dbabdf495594041e40d6d3.txt
Updated Image 64 png.rf.037b0f79786fe0dcd5ac6f743307ff69.txt
Updated jonas-jacobsson-hvS2DLGTMCs-
unsplash jpg.rf.aa5a5e8e61af98b1c0efc9b3e531f68e.txt
Updated alex-vinogradov-cY9PPgrjWPo-
unsplash jpg.rf.4c9eedb81cc408a23d70303f9d3cf0e3.txt
Updated Image 16 jpg.rf.d0704527ce487cac04788c8abbc925c9.txt
Updated Image 200 jpg.rf.ef2074a328a7053dece7c04b4947854a.txt
Updated crystal-jo-HW Hv2y17bY-
unsplash jpg.rf.9c2e5376c2ae5af254a301331c06e794.txt
Updated Image 105 jpg.rf.1e69398d99d9f40bf84498dacbc3e70b.txt
Updated 533871682 jpg.rf.5d7555001f6d72892252793ab76eee36.txt
Updated renato-trentin-fNIw00HxbWI-
unsplash jpg.rf.71ba1504dcca12fae353f74e0c3072fe.txt
Updated 2669665640 jpg.rf.al132e4050efa695a2c16557c71dd686.txt
Updated Image 93 jpg.rf.2050c8a3ef2a0f01c07078ffbeb06586.txt
Updated Image_52_jpg.rf.991f48590e86deeee760a5c6a1a8b189.txt
Updated Image 40 jpg.rf.ac094a1a8305d33dd700ae34aa826e45.txt
Updated Image_63_jpg.rf.2abc13cf411194e4b548405837fe79bf.txt
Updated Image_114_jpg.rf.0351ec5116a0e2cdb34640efe747f88f.txt
Updated Image 54 jpg.rf.bb896f3439b7230a3a9741e4deea1815.txt
Updated Image 131 jpg.rf.4c3de08b3b00400194b65680c4b72a2e.txt
Updated Image 112 jpg.rf.a4efc9142a736fae6eeb8c9158117367.txt
Updated 5126499299 jpg.rf.c7f283530796b68600529bb80ecd62cd.txt
Updated Image 88 jpg.rf.ca517a1651f2c1682c2751043a904a1a.txt
Updated 2435838064_jpg.rf.b31034a518020274cc8a955b7387d96e.txt
Updated Image 28 jpg.rf.ecae4fc372033c7ac13ae5e8d11bfcb9.txt
Updated Image 87 jpg.rf.88c7601b0ff8d92df86ac85079fa6b57.txt
Updated 2301862548 jpg.rf.fa10fa4fe0a8a2e7e4d035963efa0e1f.txt
Updated Image_142_jpg.rf.ef40a23efd1a65ac6ba79fa9efb84878.txt
Updated 2701354494_jpg.rf.4aee19132adadfe44675cc0731bce531.txt
Updated Image 100 jpg.rf.bed7a095fb4700f9dd2d9de40c4e22e6.txt
Updated laura-chouette-HWG 9omXS5g-
unsplash ipg.rf.493a169622e9b157c5fb7ca1cbb74ea5.txt
Updated Image 7 png.rf.a9a138c5f23a5922169857cde2218854.txt
Updated Image 108 jpg.rf.ccf02f4fd6719f3c90e44c83be26b346.txt
```

```
Updated sarah-louise-kinsella-t2K15HM7bzA-
unsplash jpg.rf.e3c4acc89ac19aa4ca69ac328e1714b7.txt
Updated Image 63 jpg.rf.5fa577f86b4b8348498ebb851e961139.txt
Updated zhang-kenny-y2xWxN1WymI-
unsplash jpg.rf.lafff91934fca4a99131fc34aa1a97fd.txt
Updated Image 21 jpg.rf.aa8530b1f6703a9f3a4ad26156e0fc03.txt
Updated laura-chouette-Q1zLEuJIp1Y-
unsplash jpg.rf.4e5a2951aaee93476fd35ee36c70f8fe.txt
Updated Image 107 jpg.rf.d7a1493281332c9af684c9bce8b8a399.txt
Updated Image 97 jpg.rf.edd6cfa72a06c69de08f1a8b07ecb936.txt
Updated 99801452_jpg.rf.aa946aa6f88583fee923917fee964690.txt
Updated Image_51_jpg.rf.6a9d4ca70c92d9a0596f4534dc029631.txt
Updated kalle-saarinen-ceY1oi05Xu0-
unsplash ipg.rf.1c650f8328cfa12a7b1d773fedf7092f.txt
Updated Image_90_jpg.rf.a2b263ee67e08e434a65723d8f21fe3d.txt
Updated Image_61_jpg.rf.fb6c395dc5b245e3b9f01fb0ba77689d.txt
Updated Image 10 jpg.rf.f340c8174b04fdd21e3a2f5f774aeea0.txt
Updated Screenshot-2024-02-20-at-9-23-57-
PM png.rf.56e7d4ebf9297606e6b7e40d15fdec74.txt
Updated 508397135 jpg.rf.3f4b60b43bd72634bce768844db03f55.txt
Updated Image 5 jpg.rf.a50dcae2aae958556588bb8942758792.txt
Updated Image 101 jpg.rf.fe424463b0b75d12e8d6d33923f5e1b1.txt
Updated Image 8 jpg.rf.23fa64a68c59315e74678a80e288c546.txt
Updated 2476100758 jpg.rf.12ca797dabaf655bdf4d6999c6f0cb79.txt
Updated mae-mu-z8PEoNIlGlg-
unsplash jpg.rf.3782d38cfc9e721b97532878fe164eba.txt
Updated 332913436 jpg.rf.3ca6754a8d7f46934468651248c811d9.txt
Updated Image 55 jpg.rf.e0e3bd52cc04982f7eb9defceb06d87b.txt
Updated \ Image\_46\_jpg.rf.a3c5c7becf21a4554da9ae3f9c2c26a5.txt
Updated Image_137_jpg.rf.101139e2f6443acdb1aca2cd0fdc82e6.txt
Updated Image 192 jpg.rf.b4bd0b380cee00668efdbf06f699135c.txt
Updated la-partida-eterna-nZi-87I1c2o-
unsplash_jpg.rf.6b56b288fa9f29d32cebe6617cac044f.txt
Updated Image 86 png.rf.e0adf452a18e50c6157629d0d8bb587a.txt
Updated Image 82 jpg.rf.326be08468747fe341a2bcc8d4f69511.txt
Updated hu-jiarui-n0ilkaswzBc-
unsplash jpg.rf.8d530e8fa3a04a6326cf4824efdd4fba.txt
Updated 4842404680 jpg.rf.cd083f0e9abf4d9a84718d41a4f3e614.txt
Updated 4512438754_jpg.rf.c01aa2c0c81084f445fd18d380612da9.txt
Updated Image 111 jpg.rf.71b157eda68f934d903611efa879f9bb.txt
Updated 87630579 ipg.rf.6d8f04bab7745de5b4b5dddfa4022fd6.txt
Updated alex-vinogradov-J6AYQ89vyyA-
unsplash jpg.rf.2e0a2ca7c946b3f2e1e0b447858a481a.txt
Updated Image_60_jpg.rf.25e57b173b9bef6989f65ba3113f0e90.txt
Updated Image_131_jpg.rf.60d77f7976d70ceb8c78752c2bf9180e.txt
Updated 2466058958 jpg.rf.5631ae199a5194e921744ae9e503b091.txt
Updated mahfuzur-rahman-DnetXs9hQUA-
unsplash jpg.rf.e6e1d3dd9b4e83e88d3abd9122f628e0.txt
Updated Image 25 jpg.rf.6ea9e672b93b85f358d10d8b6942b55b.txt
```

```
Updated Image 1 jpg.rf.372ddbf262fcda950ae942d85dfe07d2.txt
Updated Image 92 jpeg.rf.5628ed79d134648a130b251a490eb5ce.txt
Updated awar-kurdish-l4fNqmnkp40-
unsplash jpg.rf.7f0cfcda6e1996b12ca8a72d84af6b5d.txt
Updated Image social 14 jpg.rf.cd0d222e0967d54529a4e3956d1ef2bb.txt
Updated Image_97_JPG.rf.43ea302e6b411eb1c56ee62ecb4f86cf.txt
Updated Image 97 jpg.rf.dfabfbla6cd7261ae12745507fee4129.txt
Updated Image 136 jpg.rf.0ec4549e798076bc83575dc0079896d7.txt
Updated Image 74 jpg.rf.62bee589ef475437b032e51d558eb77d.txt
Updated abolarinwa-babafemi-1s1cXG1euxY-
unsplash jpg.rf.edb5dbbc48c1c70dc65ac0612de8504b.txt
Updated marjan-blan-marjanblan-s- 42QQ3LI4-
unsplash jpg.rf.1f84a8d708c1dfb3cab7b0139d2dc571.txt
Updated afif-kusuma- uC 6Jk4uVA-
unsplash jpg.rf.271d50aeb1c58b518f13664712c276b3.txt
Updated Image 117 jpg.rf.ff3f4dbbd9a6503a385ad51e760cb330.txt
Updated Image 18 jpg.rf.ff57258542fdea317f1ce219128c7df2.txt
Updated peyman-farmani-iWl507DXeLI-
unsplash jpg.rf.307d2cf771458567611f69ccea122116.txt
Updated Image 34 jpg.rf.6867683125071cbd6597833c34e1502b.txt
Updated 5006563076 jpg.rf.aee1fbf3c09d6c7a18f2237a3362da7e.txt
Updated 4427242482 jpg.rf.a227e467fe1eb2a8c3700b7cbdc659bb.txt
Updated Image 22 jpg.rf.cb78be949147ec1f097acbbdc1e794bd.txt
Updated Image 77 jpg.rf.4791f8a89d3c269d90b3123502458c40.txt
Updated Image 64 jpg.rf.a314dcd2542bebcef315a040ec072ef6.txt
Updated Image 127 jpg.rf.b3774f33234f75a0468179e7a23d7d4a.txt
Updated Image_62_jpg.rf.81105efb3227af03f9aa8db2fa7114f0.txt
Updated egor-myznik-mRJvsfevlBI-
unsplash jpg.rf.fb211b4e797d11efef108a0b56b551ac.txt
Updated vinzent-weiskopf-Tavh8gKJQB4-
unsplash jpg.rf.ff5331a9520cd6abacb42d9077a88990.txt
Updated hamed-mohtashami-pouya-00x3oCbTiaA-
unsplash jpg.rf.efea0bd667e69e5b6da5ad1e1218e567.txt
Updated Image_96_jpg.rf.51a5c26e5bcba1dd5817fefebaade35b.txt
Updated Image 32 jpg.rf.c3702547bb97e0361e121bddfde2e3fb.txt
Updated 2281983827 jpg.rf.ead7b202cd0f4b59782151ba8a10954d.txt
Updated Image 195 jpg.rf.b84c12aa665211546cc6f16ab0374244.txt
Updated james-coleman-zxALIwLKtJ8-
unsplash jpg.rf.aba4cb04e1e1439c855718caddba6451.txt
Updated 1485104539 jpg.rf.fc690858d1766f263d34ec0b21545842.txt
Updated Image_86_jpg.rf.4ec6alde662c0ade8f288c140910556c.txt
Updated Image 179 jpeg.rf.805ee1b0c5f7c0d71a7602d85c3a4a14.txt
Updated Image_118_jpg.rf.02714536edbbe6a5d9d6175ae0e4b925.txt
Updated Image_20_jpg.rf.5ca27d39c23f54f31580a5056260e971.txt
Updated Image_152_jpg.rf.623a56bf01e4c0f25a70ac868e4fbb00.txt
Updated Image_78_jpg.rf.61b0faccbb11337d25eff5907e0a337d.txt
Updated Image 98 jpg.rf.5ce7c3cc68ce4740ad5ec93430cff179.txt
Updated Screenshot-2024-02-20-at-9-23-49-
PM png.rf.2dcbb845f56f1dac91ecbcbcdcda259f.txt
Updated Image 48 jpg.rf.8ab80d9290e43b6d06a8b4323c642e31.txt
```

```
Updated Image 59 jpg.rf.5be8969255869c2183eeb406b8312b25.txt
Updated Screenshot-2024-02-20-at-9-24-11-
PM png.rf.83f926a4de77dcd32e2fa5b3088ffc16.txt
Updated 2940596257 jpg.rf.7fe461e81db8da7e9ebaae1598d67acd.txt
Updated 4929951251 jpg.rf.60e9cb579d825194d97c0cc8a39e3f87.txt
Updated Image 54 jpg.rf.ccb0d2e69faf7a490847b47e05836a17.txt
Updated monica-silva-1yQEs9ZumxU-
unsplash jpg.rf.3d932cd8d2280ebb24bcac1a36cb60f5.txt
Updated Image 2 jpg.rf.0cb175b0fff5ca44ae828721b888e862.txt
Updated Image 66 jpg.rf.2582421dfb279202ab917781c50d1769.txt
Updated Image 87 JPG.rf.22eb03f08f46b5c0abb009840c47f55f.txt
Updated Image_5_jpeg.rf.ab0d27ef238732a6c3bff1384bb8d783.txt
Updated 3875300642 jpg.rf.7fa66fa70d40516dae6b3297c511f64a.txt
Updated cristi-ursea-u uxkdai8e4-
unsplash jpg.rf.da36eb8eb13cdf5b0c80cf5cf30b46ff.txt
Updated Image 138 jpg.rf.dee42bc5b1d37e62296ad1a6a9648b63.txt
Updated Image 143 jpg.rf.2458274dca0c582baf3ea053cf5ed9ae.txt
Updated 2349837567_jpg.rf.76c5fd0d78148b19a71ff525d39d6162.txt
Updated Image 117 jpg.rf.f69b7e6a4856d56b7a4db008a896677f.txt
Updated 1546003088_jpg.rf.b4688203ee2d5923c7e391695652ddae.txt
Updated Image 47 jpg.rf.649ae5fbcd0aae8010fd272c3c14dea6.txt
Updated Image 31 jpg.rf.14743a25d940a9aa290001a54bfe6dbb.txt
Updated Image 86 jpg.rf.b3ad7d1d4d31a7df8f854ad0f1d5e6c7.txt
Updated 3828132415 jpg.rf.fd16947277194bed848ad11a65a18938.txt
Updated Image 39 jpg.rf.11d556ec7e6ffa6c47cb5c09d98c8d40.txt
Updated Image 100 jpg.rf.7459e717b8a76e7ccdcabd4cad2ebe6b.txt
Updated artem-beliaikin-beTreGRIdrY-
unsplash jpg.rf.1856fabb96cb902400aad48ab1935bb5.txt
Updated Image 19 png.rf.899c60a9f4cfcd13c8821904f621a542.txt
Updated Image 13 png.rf.c8023161f8ebe8547b07b23b191673e0.txt
Updated Image 122 jpg.rf.3b3b35412082201f0a7aa6dd584a1b17.txt
Updated Image 18 jpg.rf.3f2de0370826ec2adffa0c051c979515.txt
Updated historia-reiss-sYs0jH6B3is-
unsplash jpg.rf.08bec5fcc898c9b860e18a1eef2cd5f2.txt
Updated Screenshot-2024-02-20-at-9-26-40-
PM png.rf.53b259de2ad5d70c45aab2c3bc6795ef.txt
Updated Image 107 jpg.rf.e578515cf555aa7af96a95c3a82005f4.txt
Updated Image social 16 jpg.rf.7bf64f8f20dee23be56e8de7381edf08.txt
Updated frame-harirak-72Sz8kOwjdM-
unsplash jpg.rf.9e47bb3f3ec20f4a54dd8d370dcb17dd.txt
Updated 2223587931 jpg.rf.8187a151cc45a0d147d93983e917d6ea.txt
Updated Image 62 jpg.rf.bb75e1ba5a0cc77c46f68413b6b09177.txt
Updated Image_42_jpg.rf.7177606531da39d13ae56989ebff8e20.txt
Updated 4525693974_jpg.rf.c61be627ddb0fcb5beec9bd55671bf06.txt
Updated Image social 17 jpg.rf.eb02feb02add42d226f9c4956a2a824e.txt
Updated Image_49_jpg.rf.bd9fed48fad7d13bee00fffb2d8636b8.txt
Updated Image 146 jpg.rf.14b6f71c88dac5966843bb5a9ab5fbbc.txt
Updated Image 147 jpg.rf.2558cd4ebcdc4645a30b53749f83e1e3.txt
Updated Image 101 jpg.rf.30d9fbb72de0f2aff37b1c0520234961.txt
```

```
Updated 5000538051 jpg.rf.eacdaf90054311c8c85db2a44af2c6fd.txt
Updated gerard-richard-aN4dcXAP2-k-
unsplash jpg.rf.a383f4a0c08ec95993e8d0ae90ff3b31.txt
Updated Image 81 png.rf.93824ea126723cc6ff692a7c5447407c.txt
Updated alex-gorey-OvpfZVUhZXQ-
unsplash jpg.rf.aae4fd666fa433fb9d66dec4a4d1c9ad.txt
Updated danial-shoorangiz-GbXR2dL9yE0-
unsplash jpg.rf.9686679f3166c7db36e1ded63996b166.txt
Updated Image 58 jpg.rf.c69d0d0597de734726160a9514588bd9.txt
Updated Image 68 png.rf.782244b80ad4aa9e56462bfad5ee8262.txt
Updated 4816334297_jpg.rf.599b5329f639f3b5d2b8ddf13f49e1eb.txt
Updated Image_111_jpg.rf.47191aa30f751bc4dbba9a06e0942628.txt
Updated 19102117_jpg.rf.8fe05decd27bae54c16bd5a5dbe1962c.txt
Updated Image 145 jpg.rf.e88a4ea47f958b1dd1e868a52765f8ab.txt
Updated Image_35_jpg.rf.8516f88e5cdadb3cb511c259388e4f5f.txt
Updated Image 103 jpg.rf.9fe8660fe96b6a636a85271ec0f7c7ef.txt
Updated Image 129 jpg.rf.947c5078009d991b45cdbef0334ffb5a.txt
Updated Image_70_jpg.rf.ed377c84ecbe0dc72ef757a171f9882c.txt
Updated Image 57 jpg.rf.6a304f318e580d4e6d0c153aa6202046.txt
Updated Image 119 jpg.rf.03b663cc60b3eafd41760916de1aa45b.txt
#Shifting one coke dataset to pepsi
import shutil
import os
# Define source and destination paths
source train images = '/content/Brands-1/train/images'
source test images = '/content/Brands-1/test/images'
source valid images = '/content/Brands-1/valid/images'
source train labels = '/content/Brands-1/train/labels'
source test labels = '/content/Brands-1/test/labels'
source valid labels = '/content/Brands-1/valid/labels'
destination train images = '/content/Brand-Detection-2/train/images'
destination test images = '/content/Brand-Detection-2/test/images'
destination valid images = '/content/Brand-Detection-2/valid/images'
destination train labels = '/content/Brand-Detection-2/train/labels'
destination_test_labels = '/content/Brand-Detection-2/test/labels'
destination valid labels = '/content/Brand-Detection-2/valid/labels'
# Ensure the destination directories exist
os.makedirs(destination train images, exist ok=True)
os.makedirs(destination_test_images, exist_ok=True)
os.makedirs(destination valid images, exist ok=True)
os.makedirs(destination_train_labels, exist_ok=True)
os.makedirs(destination test labels, exist ok=True)
os.makedirs(destination valid labels, exist ok=True)
```

```
# Function to transfer files
def transfer files(src dir, dest dir):
    for filename in os.listdir(src dir):
        source file = os.path.join(src dir, filename)
        destination file = os.path.join(dest dir, filename)
        shutil.move(source file, destination file)
# Transfer train images
transfer files(source train images, destination train images)
# Transfer test images
transfer files(source test images, destination test images)
# Transfer valid images
transfer files(source valid images, destination valid images)
# Transfer train labels
transfer files(source train labels, destination train labels)
# Transfer test labels
transfer files(source test labels, destination test labels)
# Transfer valid labels
transfer_files(source_valid_labels, destination_valid_labels)
print("Files transferred successfully!")
Files transferred successfully!
#Counting the total number of images
import os
def count(directory):
    return len([name for name in os.listdir(directory) if
os.path.isfile(os.path.join(directory, name))])
# Example directories
train_images_dir = '/content/Brand-Detection-2/train/images'
test_images_dir = '/content/Brand-Detection-2/test/images'
valid images dir = '/content/Brand-Detection-2/valid/images'
# Counting files
num train images = count(train images dir)
num test images = count(test images dir)
num valid images = count(valid images dir)
print(f'Number of train images: {num train images}')
print(f'Number of test images: {num test images}')
print(f'Number of valid images: {num valid images}')
```

```
Number of train images: 1466
Number of test images: 112
Number of valid images: 362
#Training
!yolo task=detect mode=train model=yolov8n.pt data=/content/Brand-
Detection-2/data.yaml epochs=100
Downloading
https://github.com/ultralytics/assets/releases/download/v8.2.0/yolov8n
.pt to 'yolov8n.pt'...
100% 6.25M/6.25M [00:00<00:00, 244MB/s]
Ultralytics YOLOv8.2.58 ☐ Python-3.10.12 torch-2.3.0+cu121 CUDA:0
(Tesla T4, 15102MiB)
engine/trainer: task=detect, mode=train, model=yolov8n.pt,
data=/content/Brand-Detection-2/data.yaml, epochs=100, time=None,
patience=100, batch=16, imgsz=640, save=True, save period=-1,
cache=False, device=None, workers=8, project=None, name=train,
exist ok=False, pretrained=True, optimizer=auto, verbose=True, seed=0,
deterministic=True, single cls=False, rect=False, cos lr=False,
close mosaic=10, resume=False, amp=True, fraction=1.0, profile=False,
freeze=None, multi scale=False, overlap mask=True, mask ratio=4,
dropout=0.0, val=True, split=val, save_json=False, save_hybrid=False,
conf=None, iou=0.7, max_det=300, half=False, dnn=False, plots=True,
source=None, vid stride=1, stream buffer=False, visualize=False,
augment=False, agnostic nms=False, classes=None, retina masks=False,
embed=None, show=False, save frames=False, save txt=False,
save conf=False, save crop=False, show labels=True, show conf=True,
show boxes=True, line width=None, format=torchscript, keras=False,
optimize=False, int8=False, dynamic=False, simplify=False, opset=None,
workspace=4, nms=False, lr0=0.01, lrf=0.01, momentum=0.937,
weight decay=0.0005, warmup epochs=3.0, warmup momentum=0.8,
warmup bias lr=0.1, box=7.5, cls=0.5, dfl=1.5, pose=12.0, kobj=1.0,
label smoothing=0.0, nbs=64, hsv h=0.015, hsv_s=0.7, hsv_v=0.4,
degrees=0.0, translate=0.1, scale=0.5, shear=0.0, perspective=0.0,
flipud=0.0, fliplr=0.5, bgr=0.0, mosaic=1.0, mixup=0.0,
copy paste=0.0, auto augment=randaugment, erasing=0.4,
crop fraction=1.0, cfg=None, tracker=botsort.vaml,
save dir=runs/detect/train
Downloading https://ultralytics.com/assets/Arial.ttf to
'/root/.config/Ultralytics/Arial.ttf'...
100% 755k/755k [00:00<00:00, 75.4MB/s]
Overriding model.yaml nc=80 with nc=2
```

	from	n	params	module
arguments				
0	-1	1	464	ultralytics.nn.modules.conv.Conv
[3, 16, 3, 2]				·
1	-1	1	4672	ultralytics.nn.modules.conv.Conv
[16, 32, 3, 2]				•

```
7360
                                       ultralytics.nn.modules.block.C2f
                      -1 1
[32, 32, 1, True]
                        1
                                18560
                                       ultralytics.nn.modules.conv.Conv
                      - 1
[32, 64, 3, 2]
                      -1 2
                                49664
                                       ultralytics.nn.modules.block.C2f
[64, 64, 2, True]
                                       ultralytics.nn.modules.conv.Conv
                                73984
                      - 1
                        1
[64, 128, 3, 2]
                                       ultralytics.nn.modules.block.C2f
                      -1 2
                               197632
[128, 128, 2, True]
                                       ultralytics.nn.modules.conv.Conv
                               295424
                      -1 1
[128, 256, 3, 2]
                                       ultralytics.nn.modules.block.C2f
                               460288
                      -1 1
[256, 256, 1, True]
                      -1 1
                               164608
ultralytics.nn.modules.block.SPPF
                                              [256, 256, 5]
10
                      -1 1
                                              [None, 2, 'nearest']
torch.nn.modules.upsampling.Upsample
                [-1, 6]
ultralytics.nn.modules.conv.Concat
                                              [1]
                                       ultralytics.nn.modules.block.C2f
12
                               148224
[384, 128, 1]
13
                      - 1
torch.nn.modules.upsampling.Upsample
                                              [None, 2, 'nearest']
                [-1, 4] 1
ultralytics.nn.modules.conv.Concat
                                              [1]
15
                                       ultralytics.nn.modules.block.C2f
                                37248
                      - 1
                         1
[192, 64, 1]
                                36992
                                       ultralytics.nn.modules.conv.Conv
16
                      - 1
[64, 64, 3, 2]
               [-1, 12]
                                              [1]
ultralytics.nn.modules.conv.Concat
                                       ultralytics.nn.modules.block.C2f
18
                               123648
                      - 1
[192, 128, 1]
19
                      - 1
                               147712
                                       ultralytics.nn.modules.conv.Conv
[128, 128, 3, 2]
                [-1, 9]
20
                                              [1]
ultralytics.nn.modules.conv.Concat
                                       ultralytics.nn.modules.block.C2f
21
                      -1 1
                               493056
[384, 256, 1]
           [15, 18, 21] 1
                               751702
ultralytics.nn.modules.head.Detect
                                              [2, [64, 128, 256]]
```

```
Model summary: 225 layers, 3,011,238 parameters, 3,011,222 gradients,
8.2 GFLOPs
Transferred 319/355 items from pretrained weights
TensorBoard: Start with 'tensorboard --logdir runs/detect/train', view
at http://localhost:6006/
Freezing layer 'model.22.dfl.conv.weight'
AMP: running Automatic Mixed Precision (AMP) checks with YOLOv8n...
/usr/local/lib/python3.10/dist-packages/torch/nn/modules/conv.py:456:
UserWarning: Plan failed with a cudnnException:
CUDNN BACKEND EXECUTION PLAN DESCRIPTOR: cudnnFinalize Descriptor
Failed cudnn status: CUDNN STATUS NOT SUPPORTED (Triggered internally
at ../aten/src/ATen/native/cudnn/Conv v8.cpp:919.)
  return F.conv2d(input, weight, bias, self.stride,
AMP: checks passed □
train: Scanning /content/Brand-Detection-2/train/labels... 1466
images, 37 backgrounds, 0 corrupt: 100% 1466/1466 [00:00<00:00,
2087.10it/s]
train: New cache created:
/content/Brand-Detection-2/train/labels.cache
albumentations: Blur(p=0.01, blur_limit=(3, 7)), MedianBlur(p=0.01,
blur_limit=(3, 7)), ToGray(p=0.01), CLAHE(p=0.01, clip_limit=(1, 4.0),
tile grid size=(8, 8))
/usr/lib/python3.10/multiprocessing/popen fork.py:66: RuntimeWarning:
os.fork() was called. os.fork() is incompatible with multithreaded
code, and JAX is multithreaded, so this will likely lead to a
deadlock.
  self.pid = os.fork()
val: Scanning /content/Brand-Detection-2/valid/labels... 362 images,
15 backgrounds, 0 corrupt: 100% 362/362 [00:00<00:00, 1564.87it/s]
val: New cache created: /content/Brand-Detection-2/valid/labels.cache
Plotting labels to runs/detect/train/labels.jpg...
optimizer: 'optimizer=auto' found, ignoring 'lr0=0.01' and
'momentum=0.937' and determining best 'optimizer', 'lr0' and
'momentum' automatically...
optimizer: AdamW(lr=0.001667, momentum=0.9) with parameter groups 57
weight(decay=0.0), 64 weight(decay=0.0005), 63 bias(decay=0.0)
TensorBoard: model graph visualization added □
Image sizes 640 train, 640 val
Using 2 dataloader workers
Logging results to runs/detect/train
Starting training for 100 epochs...
      Epoch
               GPU mem
                         box loss cls loss
                                               dfl loss Instances
Size
                 2.97G
                            1.393
      1/100
                                       2.403
                                                  1.186
                                                                31
640: 100% 92/92 [00:39<00:00, 2.33it/s]
                 Class
                           Images Instances
                                                  Box(P
                                                                 R
mAP50 mAP50-95): 100% 12/12 [00:05<00:00, 2.08it/s]
```

0.412 0.276 all	362	750	0.554	0.399
Epoch GPU_mem	box_loss	cls_loss	dfl_loss	Instances
2/100 2.69G 640: 100% 92/92 [00:34·	<00:00, 2.6	6it/s]		
mAP50 mAP50-95): 100%	Images 12/12 [00:0	6<00:00, 1	.97it/s]	
all 0.535 0.319	362	750	0.625	0.541
Epoch GPU_mem	box_loss	cls_loss	dfl_loss	Instances
3/100 2.86G 640: 100% 92/92 [00:32·				25
Class mAP50 mAP50-95): 100%	Images 12/12 [00:0	Instances 6<00:00, 1	Box(P .82it/s]	
all 0.581 0.367	362	750	0.685	0.573
Epoch GPU_mem	box_loss	cls_loss	dfl_loss	Instances
4/100 2.87G 640: 100% 92/92 [00:31·				25
Class mAP50 mAP50-95): 100%	Images 12/12 [00:0	<pre>Instances 7<00:00, 1</pre>	Box(P .71it/s]	
0.546 0.36	362	750	0.739	0.504
Epoch GPU_mem	box_loss	cls_loss	dfl_loss	Instances
5/100 4.02G 640: 100% 92/92 [00:33·			1.193	29
Class mAP50 mAP50-95): 100%	Images	Instances	.01it/s]	
all 0.596 0.386	362	750	0.724	0.563
Epoch GPU_mem	box_loss	cls_loss	dfl_loss	Instances
6/100 3.18G 640: 100% 92/92 [00:33		1.167 4it/s]	1.166	25
_	Images	Instances		R
0.645 0.435	362	750	0.821	0.595
Epoch GPU_mem	box_loss	cls_loss	dfl_loss	Instances

7/100 2.96 1.323 1.118	1.169	42
640: 100% 92/92 [00:34<00:00, 2.67it/s] Class Images Instances	Box(P	R
mAP50 mAP50-95): 100% 12/12 [00:04<00:00, 2.59	9it/s]	0.633
all 362 750 0.649 0.426	0.783	0.033
Epoch GPU_mem box_loss cls_loss c	dfl_loss	Instances
8/100 2.77G 1.319 1.13	1.184	68
640: 100% 92/92 [00:34<00:00, 2.70it/s] Class Images Instances	Roy (P	R
mAP50 mAP50-95): 100% 12/12 [00:03<00:00, 3.09	9it/s]	IX
all 362 750	0.781	0.612
0.631 0.42		
Epoch GPU_mem box_loss cls_loss o	dfl_loss	Instances
Size	_	
9/100 2.6G 1.274 1.075 640: 100% 92/92 [00:34<00:00, 2.65it/s]	1.146	76
Class Images Instances	Box (P	R
mAP50 mAP50-95): 100% 12/12 [00:03<00:00, 3.12	2it/s]	
all 362 750	0.801	0.619
0.657 0.44		
<pre>Epoch GPU_mem box_loss cls_loss cls_loss</pre>	dfl_loss	Instances
10/100 2.99G 1.284 1.037	1.138	28
640: 100% 92/92 [00:34<00:00, 2.65it/s] Class Images Instances	Pov/D	D
mAP50 mAP50-95): 100% 12/12 [00:03<00:00, 3.2]		
all 362 750	0.829	0.615
		0.013
0.643 0.433		0.013
Epoch GPU_mem box_loss cls_loss o	dfl_loss	
Epoch GPU_mem box_loss cls_loss of Size	_	Instances
Epoch GPU_mem box_loss cls_loss c Size 11/100 3.07G 1.255 0.9751	_	Instances
Epoch GPU_mem box_loss cls_loss cls_los	1.128 Box(P	Instances
Epoch GPU_mem box_loss cls_loss of Size 11/100 3.07G 1.255 0.9751 640: 100% 92/92 [00:35<00:00, 2.59it/s]	1.128 Box(P 9it/s]	Instances 37 R
Epoch GPU_mem box_loss cls_loss of Size 11/100 3.07G 1.255 0.9751 640: 100% 92/92 [00:35<00:00, 2.59it/s]	1.128 Box(P 9it/s]	Instances 37 R
Epoch GPU_mem box_loss cls_loss of Size 11/100 3.07G 1.255 0.9751	1.128 Box(P 9it/s] 0.817	Instances 37 R 0.639
Epoch GPU_mem box_loss cls_loss of Size 11/100 3.07G 1.255 0.9751 640: 100% 92/92 [00:35<00:00, 2.59it/s]	1.128 Box(P 9it/s] 0.817	Instances 37 R 0.639
Epoch GPU_mem box_loss cls_loss of Size 11/100 3.07G 1.255 0.9751	1.128 Box(P Dit/s] 0.817 dfl_loss	Instances 37 R 0.639 Instances
Epoch GPU_mem box_loss cls_loss of Size 11/100	1.128 Box(P 0:1/s] 0.817 dfl_loss 1.129	Instances 37 R 0.639 Instances 35
Epoch GPU_mem box_loss cls_loss of Size 11/100	1.128 Box(P 0it/s] 0.817 dfl_loss 1.129 Box(P	Instances 37 R 0.639 Instances
Epoch GPU_mem box_loss cls_loss of Size 11/100	1.128 Box(P 0it/s] 0.817 dfl_loss 1.129 Box(P	Instances 37 R 0.639 Instances 35 R

0.675	0.4/2				
	ch GPU_mem	box_loss	cls_loss	dfl_loss	Instances
	00 3.11G			1.113	59
640: 100%	92/92 [00:34 Class	<00:00, 2.0 Images	68it/s] Instances	Box(P	R
mAP50 mAF	² 50-95): 100%	12/12 [00:	04<00:00, 2 750	2.66it/s]	
0.662	all 0.451	302	750	0.010	0.039
Epoc	ch GPU_mem	box loss	cls loss	dfl loss	Instances
Size	_ 00 3.1G	_	_	_	
	92/92 [00:34	<00:00, 2.	71it/s]		
mAP50 mAF	Class 950-95): 100%	Images	Instances	Box(P .87it/s1	R
	all	362	750	0.834	0.63
0.656	0.43				
Epoc Size	ch GPU_mem	box_loss	cls_loss	dfl_loss	Instances
15/10	00 2.97G			1.106	15
640: 100%	92/92 [00:32 Class	<00:00, 2.3 Images	82it/s] Instances	Box (P	R
mAP50 mAF	950-95): 100%	12/12 [00:	06<00:00, 1	.88it/s]	
0.676	all 0.462	302	750	0.0	0.043
Fnoc	ch GPU_mem	hox loss	cls loss	dfl loss	Instances
Size	_	_	_	_	
	00 2.78G 92/92 [00:34			1.128	21
m	Class	Images	Instances	Box(P	R
IIIAPSU IIIAP	950-95): 100% all		750 750		
0.668	0.46				
	ch GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size 17/10	00 2.95G	1.222	0.9046	1.12	43
	92/92 [00:34 Class	<00:00, 2.			R
mAP50 mAF	250-95): 100%	12/12 [00:	04<00:00, 2	-	ĸ
0.647	all 0 452	362	750	0.756	0.631
			, ,	163.3	-
Epoc Size	ch GPU_mem	DOX_loss	cls_loss	atl_loss	Instances
18/16	00 2.93G	1.202	0.8801	1.099	29

640: 100% 92/92 [00:34<00:00, 2.63it/s]		
Class Images Instances	Box (P	R
mAP50 mAP50-95): 100% 12/12 [00:04<00:00, 2. all 362 750		0.597
0.643 0.451	01033	0.337
Epoch GPU_mem box_loss cls_loss	dfl loss	Instances
Size	_	
19/100 2.49G 1.177 0.8628 640: 100% 92/92 [00:33<00:00, 2.74it/s]		77
Class Images Instances mAP50 mAP50-95): 100% 12/12 [00:03<00:00, 3.	Box(P	R
all 362 750	0.831	0.647
0.676 0.474		
Epoch GPU_mem box_loss cls_loss	dfl_loss	Instances
Size 20/100 3.17G 1.188 0.8505	1.089	109
640: 100% 92/92 [00:34<00:00, 2.66it/s]		
Class Images Instances mAP50 mAP50-95): 100% 12/12 [00:04<00:00, 2.	Box(P	R
all 362 750		0.655
0.67 0.472		
<pre>Epoch GPU_mem box_loss cls_loss Size</pre>	dfl_loss	Instances
21/100 3.15G 1.193 0.845	1.081	27
640: 100% 92/92 [00:34<00:00, 2.66it/s] Class Images Instances	Pov (D	R
mAP50 mAP50-95): 100% 12/12 [00:05<00:00, 2.	17it/s]	
all 362 750 0.677 0.471	0.837	0.641
Epoch GPU_mem box_loss cls_loss Size	dfl_loss	Instances
22/100 2.81G 1.18 0.8387	1.09	186
640: 100% 92/92 [00:32<00:00, 2.85it/s] Class Images Instances	Box (P	R
mAP50 mAP50-95): 100% 12/12 [00:06<00:00, 1.		IX
all 362 750 0.678 0.484	0.823	0.653
Epoch GPU_mem box_loss cls_loss Size	dfl_loss	Instances
23/100 2.63G 1.178 0.8166	1.088	23
640: 100% 92/92 [00:31<00:00, 2.92it/s] Class Images Instances	Box (P	R
mAP50 mAP50-95): 100% 12/12 [00:06<00:00, 1.		
all 362 750 0.67 0.458	0.823	0.649
0.1.00		

Epoch GPU_mem box_loss cls_loss dfl_loss	Instances
Size 24/100 2.8G 1.143 0.8225 1.084	26
640: 100% 92/92 [00:31<00:00, 2.91it/s]	
Class Images Instances Box(P mAP50 mAP50-95): 100% 12/12 [00:05<00:00, 2.10it/s]	R
all 362 750 0.829 0.66 0.448	0.635
<pre>Epoch GPU_mem box_loss cls_loss dfl_loss Size</pre>	Instances
25/100 2.85G 1.127 0.7837 1.074	65
640: 100% 92/92 [00:33<00:00, 2.72it/s] Class Images Instances Box(P	R
mAP50 mAP50-95): 100% 12/12 [00:04<00:00, 2.48it/s]	
all 362 750 0.846 0.673 0.464	0.637
<pre>Epoch GPU_mem box_loss cls_loss dfl_loss Size</pre>	Instances
26/100 2.99G 1.198 0.7987 1.079	84
640: 100% 92/92 [00:34<00:00, 2.67it/s] Class Images Instances Box(P	R
mAP50 mAP50-95): 100% 12/12 [00:03<00:00, 3.03it/s]	
all 362 750 0.829 0.708 0.491	0.657
Epoch GPU mem box loss cls loss dfl loss	Tristances
Size	
27/100 2.71G 1.171 0.805 1.091 640: 100% 92/92 [00:35<00:00, 2.62it/s]	18
Class Images Instances Box(P	R
mAP50 mAP50-95): 100% 12/12 [00:03<00:00, 3.29it/s] all 362 750 0.828	0.648
0.687 0.493 0.687	0.048
Epoch GPU mem box loss cls loss dfl loss	Instances
Size	
28/100 3G 1.158 0.8001 1.087 640: 100% 92/92 [00:34<00:00, 2.66it/s]	23
Class Images Instances Box(P	R
mAP50 mAP50-95): 100% 12/12 [00:03<00:00, 3.26it/s] all 362 750 0.808	0.655
0.681 0.475	0.000
Epoch GPU mem box loss cls loss dfl loss	Instances
Size	
29/100 2.58G 1.161 0.7799 1.075 640: 100% 92/92 [00:34<00:00, 2.71it/s]	48

Class mAP50 mAP50-95): 100% 12	Images Instances	
all	362 750	0.836 0.649
0.673 0.471		
Epoch GPU_mem	box_loss cls_loss	dfl_loss Instances
30/100 3.02G		
640: 100% 92/92 [00:35<00 Class	Images Instances	Box (P R
mAP50 mAP50-95): 100% 12 all	/12 [00:03<00:00, 3 362 750	.32it/s] 0.82 0.664
0.687 0.488		
Epoch GPU_mem	box_loss cls_loss	dfl_loss Instances
Size 31/100 2.71G		1.056 24
640: 100% 92/92 [00:34<00 Class	:00, 2.68it/s] Images Instances	Box(P R
mAP50 mAP50-95): 100% 12		.70it/s]
0.677 0.48	302 730	0.03
Epoch GPU_mem	box_loss cls_loss	dfl_loss Instances
Size 32/100 2.94G	1.11 0.7716	1.055 30
640: 100% 92/92 [00:32<00 Class	:00, 2.82it/s] Images Instances	
mAP50 mAP50-95): 100% 12	/12 [00:05<00:00, 2	
0.692 0.476	302 730	0.033
	box_loss cls_loss	dfl_loss Instances
Size 33/100 2.78G	1.123 0.7396	1.055 120
640: 100% 92/92 [00:32<00	:00, 2.85it/s] Images Instances	Box(P R
mAP50 mAP50-95): 100% 12	/12 [00:06<00:00, 1	.83it/s]
all 0.689 0.476	362 750	0.833 0.653
Epoch GPU_mem	box_loss cls_loss	dfl_loss Instances
Size 34/100 2.5G	1.152 0.7712	1.074 33
640: 100% 92/92 [00:32<00	:00, 2.85it/s]	
mAP50 mAP50-95): 100% 12	Images Instances /12 [00:06<00:00, 1	.89it/s]
all 0.692 0.488	362 750	0.808 0.681

Size	Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
3				0.7461	1.054	27
		Class		Instances		
mAP50				05<00:00, 2 750		0.659
0.68	0.469	9				
Size	Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
3	36/100 100% 02/03	3.03G	1.103	0.7347 78it/s]	1.057	173
		Class	Images	Instances		
		all		05<00:00, 2 750		
	0.49					
Size	·	_	_	cls_loss	_	
640: 1	37/100 100% 92/92	2.85G 2 [00:33<	1.11 <00:00, 2.7	0.7311 74it/sl	1.061	20
		Class	Images	Instances 04<00:00, 2	Box(P	R
		all		750		
0.727			h 1	.1. 1	161 1	Totalogia
Size				cls_loss		
640: 1	38/100 100% 92/92	2 [00:34<	<00:00, 2.6	0.7239 55it/s]		
mAP50	mAP50-95			Instances 03<00:00, 3		
0.696	0.50			750	0.849	0.667
				cls_loss	dfl loss	Instances
Size	-	_	_	0.7167	_	23
	•	2 [00:34<	<00:00, 2.6	57it/s]		R
mAP50	mAP50-95		12/12 [00:0	Instances 03<00:00, 3	.24it/s]	
0.715	0.51		362	750	0.851	0.645
	Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
				0.7123	1.048	26
640: 1	100% 92/92	2 [00:33< Class	00:00, 2.7 Images	72it/s] Instances		R
			3		,	

mAP50 mAP50-95): 100%				0 662
0.69 0.484	362	730	0.637	0.002
Epoch GPU_mem	box_loss o	cls_loss	dfl_loss	Instances
41/100 2.77G 640: 100% 92/92 [00:34<				47
Class mAP50 mAP50-95): 100%	Images Ir	nstances	Box(P	R
0.678 0.482	362	750	0.839	0.664
Epoch GPU mem	hov loss	ala loca	dfl loss	Instances
Size 42/100 3.23G	_	<u>-</u>	_	
640: 100% 92/92 [00:34<	:00:00, 2.70it	t/s]		
mAP50 mAP50-95): 100%		90:00, 2.	96it/s]	
0.705 0.506	362	750	0.855	0.671
Epoch GPU_mem	box_loss o	cls_loss	dfl_loss	Instances
Size 43/100 2.91G				37
640: 100% 92/92 [00:34< Class	Images Ir	nstances	Box(P	R
mAP50 mAP50-95): 100% all	12/12 [00:03<6 362	90:00, 3. 750	05it/s] 0.855	0.664
0.697 0.501				
Epoch GPU_mem Size	_	_	_	
44/100 2.89G 640: 100% 92/92 [00:35<			1.029	27
	Images Ir	nstances		R
all 0.708 0.506	362	750	0.853	0.657
Epoch GPU mem	box loss (cls loss	dfl loss	Instances
Size 45/100 2.97G	_	_	1.044	32
640: 100% 92/92 [00:33< Class	:00:00, 2.73it	t/s]		R
mAP50 mAP50-95): 100% all		90:00, 1.		0.648
0.693 0.489	302	, 50	0.050	0.040
Epoch GPU_mem	box_loss o	cls_loss	dfl_loss	Instances

Cina	
Size 46/100 2.65G 1.06 0.6833 1.037	46
640: 100% 92/92 [00:32<00:00, 2.83it/s]	10
Class Images Instances Box(P	
mAP50 mAP50-95): 100% 12/12 [00:07<00:00, 1.71it/s]	
all 362 750 0.841 0.693 0.485	0.657
Epoch GPU_mem box_loss cls_loss dfl_loss	Instances
Size 47/100 2.96G 1.062 0.6702 1.032	62
640: 100% 92/92 [00:33<00:00, 2.75it/s]	
Class Images Instances Box(P	
mAP50 mAP50-95): 100% 12/12 [00:05<00:00, 2.25it/s] all 362 750 0.845	
0.693 0.496	0.059
Epoch GPU_mem box_loss cls_loss dfl_loss Size	Instances
48/100 2.79G 1.073 0.6906 1.037	22
640: 100% 92/92 [00:35<00:00, 2.61it/s]	
Class Images Instances Box(P	
mAP50 mAP50-95): 100% 12/12 [00:04<00:00, 2.74it/s] all 362 750 0.837	0.645
0.682 0.482	0.0.5
Enoch CDU mam have loss als loss dil loss	Tnatanaaa
Epoch GPU_mem box_loss cls_loss dfl_loss Size	Instances
49/100 2.86G 1.062 0.6609 1.03	30
640: 100% 92/92 [00:34<00:00, 2.66it/s]	
Class Images Instances Box(P mAP50 mAP50-95): 100% 12/12 [00:03<00:00, 3.21it/s]	R
	0.652
0.695 0.502	
Epoch GPU mem box loss cls loss dfl loss	Instances
Size	Tils calices
50/100 2.7G 1.065 0.6751 1.028	17
640: 100% 92/92 [00:35<00:00, 2.58it/s]	D
Class Images Instances Box(P mAP50 mAP50-95): 100% 12/12 [00:04<00:00, 2.95it/s]	
all 362 750 0.839	
0.696 0.501	
Epoch GPU mem box loss cls loss dfl loss	Instances
Size	Instances
51/100 2.95G 1.048 0.6509 1.029	31
640: 100% 92/92 [00:35<00:00, 2.59it/s]	
Class Images Instances Poy/D	D
Class Images Instances Box(P mAP50 mAP50-95): 100% 12/12 [00:03<00:00, 3.04it/s]	R

0.703 0.50	all	362	750	0.832	0.675
Epoch (box_loss	cls_loss	dfl_loss	Instances
Size 52/100 640: 100% 92/92		1.056		1.042	31
mAP50 mAP50-95	Class	Images	Instances		
0.698 0.50	all	362	750	0.828	0.667
Epoch (GPU_mem	box_loss	cls_loss	dfl_loss	Instances
	[00:35<		9it/s]		
mAP50 mAP50-95): 100%	Images 12/12 [00:0	4<00:00, 2	.92it/s]	
0.7 0.51	dll	362	750	0.830	0.00
Epoch (_	_	_	_	
640: 100% 92/92	[00:34<	1.04 <00:00, 2.6	5it/s]		
mAP50 mAP50-95): 100%	Images 12/12 [00:0 362	5<00:00, 2	.20it/s]	
0.729 0.533	3				
Size	_	box_loss	_	_	
55/100 640: 100% 92/92	[00:32<	1.055 00:00, 2.8	0it/s]		
mAP50 mAP50-95): 100% all	12/12 [00:0 362	6<00:00, 1 750	.97it/s] 0.849	
0.712 0.518		h 1	.1. 1	461 1	Toolson
Size 56/100	_	box_loss	0.6345	_	Instances 75
640: 100% 92/92	[00:31<		9it/s]		, , s R
mAP50 mAP50-95): 100% all	12/12 [00:0		.96it/s]	0.654
0.693 0.505		box loss	cle loce	dfl loss	Instances
Size	or o_lileill	DUX_LUSS	(13_1055	u1 (_(USS	Tils calices

57/100 2.7G 1.039 0.6564 1	
640: 100% 92/92 [00:33<00:00, 2.73it/s]	.029 29
Class Images Instances B	
mAP50 mAP50-95): 100% 12/12 [00:06<00:00, 1.98it/all 362 750 0	s] .841 0.669
0.698 0.509	
<pre>Epoch GPU_mem box_loss cls_loss dfl_ Size</pre>	loss Instances
58/100 2.7G 1.042 0.6363 1	.024 42
640: 100% 92/92 [00:33<00:00, 2.71it/s] Class Images Instances B	ox(P R
mAP50 mAP50-95): 100% 12/12 [00:04<00:00, 2.50it/all 362 750 0	s]
0.708 0.517	.005
Epoch GPU_mem box_loss cls_loss dfl_	loss Instances
Size 59/100 3.1G 1.049 0.6382 1	.018 35
640: 100% 92/92 [00:34<00:00, 2.64it/s] Class Images Instances B	
mAP50 mAP50-95): 100% 12/12 [00:03<00:00, 3.22it/	s]
all 362 750 0 0.716 0.521	.842 0.674
Epoch GPU_mem box_loss cls_loss dfl_	loss Instances
Size 60/100 2.65G 1.021 0.6315 1	.014 79
	-
640: 100% 92/92 [00:34<00:00, 2.65it/s]	ov (P P
Class Images Instances B mAP50 mAP50-95): 100% 12/12 [00:03<00:00, 3.05it/	s]
Class Images Instances B	s]
Class Images Instances B mAP50 mAP50-95): 100% 12/12 [00:03<00:00, 3.05it/all 362 750	s] 0.85 0.672
Class Images Instances B mAP50 mAP50-95): 100% 12/12 [00:03<00:00, 3.05it/all 362 750 0.704 0.511 Epoch GPU_mem box_loss cls_loss dfl_ Size	s] 0.85 0.672 loss Instances
Class Images Instances B mAP50 mAP50-95): 100% 12/12 [00:03<00:00, 3.05it/all 362 750 0.704 0.511 Epoch GPU_mem box_loss cls_loss dfl_ Size 61/100 2.76G 1.028 0.6254 1 640: 100% 92/92 [00:34<00:00, 2.63it/s]	o.85 0.672 loss Instances .008 21
Class Images Instances B mAP50 mAP50-95): 100% 12/12 [00:03<00:00, 3.05it/all 362 750 0.704 0.511 Epoch GPU_mem box_loss cls_loss dfl_ Size 61/100 2.76G 1.028 0.6254 1 640: 100% 92/92 [00:34<00:00, 2.63it/s] Class Images Instances B mAP50 mAP50-95): 100% 12/12 [00:03<00:00, 3.26it/	s] 0.85 0.672 loss Instances .008 21 ox(P R
Class Images Instances B mAP50 mAP50-95): 100% 12/12 [00:03<00:00, 3.05it/all 362 750 0.704 0.511 Epoch GPU_mem box_loss cls_loss dfl_ Size 61/100 2.76G 1.028 0.6254 1 640: 100% 92/92 [00:34<00:00, 2.63it/s] Class Images Instances B mAP50 mAP50-95): 100% 12/12 [00:03<00:00, 3.26it/	s] 0.85 0.672 loss Instances .008 21 ox(P R
Class Images Instances B mAP50 mAP50-95): 100% 12/12 [00:03<00:00, 3.05it/all 362 750 0.704 0.511 Epoch GPU_mem box_loss cls_loss dfl_ Size 61/100 2.76G 1.028 0.6254 1 640: 100% 92/92 [00:34<00:00, 2.63it/s] Class Images Instances B mAP50 mAP50-95): 100% 12/12 [00:03<00:00, 3.26it/all 362 750 0	ox(P R s] .828 0.681
Class Images Instances B mAP50 mAP50-95): 100% 12/12 [00:03<00:00, 3.05it/all 362 750 0.704 0.511 Epoch GPU_mem box_loss cls_loss dfl_Size 61/100 2.76G 1.028 0.6254 1 640: 100% 92/92 [00:34<00:00, 2.63it/s] Class Images Instances B mAP50 mAP50-95): 100% 12/12 [00:03<00:00, 3.26it/all 362 750 0 0.706 0.51 Epoch GPU_mem box_loss cls_loss dfl_Size	ox(P R S] .828 0.681
Class Images Instances B mAP50 mAP50-95): 100% 12/12 [00:03<00:00, 3.05it/all 362 750 0.704 0.511 Epoch GPU_mem box_loss cls_loss dfl_ Size 61/100 2.76G 1.028 0.6254 1 640: 100% 92/92 [00:34<00:00, 2.63it/s] Class Images Instances B mAP50 mAP50-95): 100% 12/12 [00:03<00:00, 3.26it/all 362 750 0 0.706 0.51 Epoch GPU_mem box_loss cls_loss dfl_ Size 62/100 2.45G 1.013 0.6053 1 640: 100% 92/92 [00:33<00:00, 2.71it/s]	0.85 0.672 loss Instances .008 21 ox(P R s] .828 0.681 loss Instances .013 45
Class Images Instances B mAP50 mAP50-95): 100% 12/12 [00:03<00:00, 3.05it/all 362 750 0.704 0.511 Epoch GPU_mem box_loss cls_loss dfl_ Size 61/100 2.76G 1.028 0.6254 1 640: 100% 92/92 [00:34<00:00, 2.63it/s] Class Images Instances B mAP50 mAP50-95): 100% 12/12 [00:03<00:00, 3.26it/all 362 750 0 0.706 0.51 Epoch GPU_mem box_loss cls_loss dfl_ Size 62/100 2.45G 1.013 0.6053 1 640: 100% 92/92 [00:33<00:00, 2.71it/s] Class Images Instances B mAP50 mAP50-95): 100% 12/12 [00:04<00:00, 2.94it/	0.85 0.672 loss Instances .008 21 ox(P R s] .828 0.681 loss Instances .013 45 ox(P R

0.71 0.52	26				
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
			0.603	1.007	28
640: 100% 92/	92 [00:34< Class	00:00, 2.6 Images	7it/s] Instances	Box(P	R
mAP50 mAP50-9	95): 100%	12/12 [00:0	4<00:00, 2 750	.70it/s]	0.668
0.696 0.5	508	302	730	0.00	0.000
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size 64/100	3.2G	1.003	0.6003	1.012	36
640: 100% 92/	92 [00:33<	<00:00, 2.7	8it/s]		
mAP50 mAP50-9	95): 100%	12/12 [00:0	<pre>Instances 5<00:00, 2</pre>	.23it/s]	
0.701 0.5	all	362	750	0.842	0.666
				163 3	.
Epoch Size	_	_	_	_	
65/100 640: 100% 92/9			0.6102	1.008	32
	Class	Images	Instances	Box (P	R
mAP50 mAP50-9	95): 100% all	12/12 [00:0 362	6<00:00, 1 750	.901t/s] 0.87	0.651
0.706 0.5	516				
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
			0.6089	1.004	53
640: 100% 92/	92 [00:32< Class	00:00, 2.8 Tmages	7it/s] Instances	Box (P	R
mAP50 mAP50-9	95): 100%	12/12 [00:0	7<00:00, 1	.67it/s]	
0.696 0.5	all 512	362	750	0.83	0.67
Fnoch	GPU mem	hox loss	cls loss	dfl loss	Instances
Size	_	_	_	_	
640: 100% 92/	2.64G 92 [00:32<		0.5964 7it/s]	1.006	19
mAP50 mAP50-9	Class		Instances		R
	all	362		0.842	0.651
0.697 0.5	513				
Epoch Size	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
68/100	2.98G	0.977	0.5876	1	23

640: 100% 92/92 [00:34<00:00, 2.68it/s]	
Class Images Instances Box(P	R
mAP50 mAP50-95): 100% 12/12 [00:04<00:00, 2.65it/s] all 362 750 0.85	0 666
0.707 0.513	0.000
Epoch GPU_mem box_loss cls_loss dfl_loss	Instances
Size	
69/100 2.73G 0.9837 0.5789 1.003 640: 100% 92/92 [00:34<00:00, 2.68it/s]	
Class Images Instances Box(P mAP50 mAP50-95): 100% 12/12 [00:03<00:00, 3.23it/s]	R
all 362 750 0.845 0.704 0.517	0.661
Epoch GPU mem box loss cls loss dfl loss	Instances
Size	
70/100 3.65G 0.9986 0.5879 0.9948 640: 100% 92/92 [00:35<00:00, 2.56it/s]	34
Class Images Instances Box(P	R
mAP50 mAP50-95): 100% 12/12 [00:03<00:00, 3.21it/s] all 362 750 0.849	0.675
0.71 0.521	0.075
Epoch GPU_mem box_loss cls_loss dfl_loss	Instances
Size 71/100 2.78G 0.9805 0.5887 0.9927	37
640: 100% 92/92 [00:35<00:00, 2.61it/s]	
Class Images Instances Box(P mAP50 mAP50-95): 100% 12/12 [00:03<00:00, 3.19it/s]	R
all 362 750 0.855	0.665
0.707 0.524	
<pre>Epoch GPU_mem box_loss cls_loss dfl_loss Size</pre>	Instances
72/100 3.01G 1.01 0.5896 0.992	161
640: 100% 92/92 [00:35<00:00, 2.60it/s] Class Images Instances Box(P	R
mAP50 mAP50-95): 100% 12/12 [00:03<00:00, 3.10it/s]	
all 362 750 0.818 0.712 0.513	0.679
Epoch GPU_mem box_loss cls_loss dfl_loss	Instances
Size 73/100 2.8G 0.9771 0.5773 0.9932	22
640: 100% 92/92 [00:34<00:00, 2.63it/s]	
Class Images Instances Box(P mAP50 mAP50-95): 100% 12/12 [00:03<00:00, 3.08it/s]	R
all 362 750 0.868	0.642
0.719 0.531	

Epoch GPU_mem box_loss cls_loss dfl_los	s Instances
74/100 2.87G 0.9561 0.5639 0.983 640: 100% 92/92 [00:35<00:00, 2.62it/s]	31 17
Class Images Instances Box	P R
mAP50 mAP50-95): 100% 12/12 [00:04<00:00, 2.68it/s] all 362 750 0.84	16 0.668
0.71 0.527	
<pre>Epoch GPU_mem box_loss cls_loss dfl_los Size</pre>	s Instances
75/100 2.92G 1.003 0.5734 0.987 640: 100% 92/92 [00:32<00:00, 2.81it/s]	['] 1 62
Class Images Instances Box	P R
mAP50 mAP50-95): 100% 12/12 [00:06<00:00, 1.88it/s] all 362 750 0.8	33 0.675
0.701 0.514	
<pre>Epoch GPU_mem box_loss cls_loss dfl_los Size</pre>	s Instances
76/100 2.74G 0.9863 0.565 0.985 640: 100% 92/92 [00:32<00:00, 2.84it/s]	51 43
Class Images Instances Box(mAP50 mAP50-95): 100% 12/12 [00:07<00:00, 1.67it/s]	
all 362 750 0.84 0.72 0.533	
	. .
Epoch GPU_mem box_loss cls_loss dfl_los	ss Instances
77/100 2.91G 0.9738 0.551 0.992 640: 100% 92/92 [00:32<00:00, 2.81it/s]	21 55
Class Images Instances Box	
mAP50 mAP50-95): 100% 12/12 [00:07<00:00, 1.70it/s] all 362 750 0.82	
0.716 0.528	
Epoch GPU_mem box_loss cls_loss dfl_los	s Instances
Size 78/100 2.91G 0.9821 0.558 0.989	20
640: 100% 92/92 [00:33<00:00, 2.72it/s] Class Images Instances Box	P R
mAP50 mAP50-95): 100% 12/12 [00:05<00:00, 2.37it/s] all 362 750 0.86	
0.708 0.515	
<pre>Epoch GPU_mem box_loss cls_loss dfl_los Size</pre>	s Instances
79/100 2.75G 0.9534 0.5556 0.982 640: 100% 92/92 [00:34<00:00, 2.70it/s]	25 39

mAD50	mAD50_05					Box(P 2.43it/s]	
		all	12/12	362	750 750	0.841	0.665
	0.51						
Size	Epoch	GPU_mem	box	_loss	cls_loss	dfl_loss	Instances
80	0/100	3.02G	0	. 9658	0.5473	0.9907	36
		Class	Ir	nages	Instances	Box(P	
		~11	12/12	[00:0 362)3<00:00, 750	3.12it/s] 0.833	0.676
0.715	0.5	2		302	, 30	01033	01070
Size	Epoch	GPU_mem	box	_loss	cls_loss	dfl_loss	Instances
83	1/100	2.71G	0	. 9554	0.5465	0.984	28
		Class	Ir	nages		Box(P	
mAP50	mAP50-95): 100%	12/12	[00:0 362)3<00:00, 756	3.18it/s] 0.841	0.667
0.715	0.51	9		302	, 50	01011	01007
	Epoch	GPU_mem	box	_loss	cls_loss	dfl_loss	Instances
						0.9884	24
640: 10	00% 92/92	[00:35< Class	00:00> 1	, 2.6 mages	Slit/s] Instances	Box(P	R
mAP50	mAP50-95): 100%	12/12	[00:0	3<00:00,	3.15it/s] 0.851	
0.716	0.52	5		302	736	0.031	0.076
	Epoch	GPU_mem	box	loss	cls_loss	dfl_loss	Instances
Size	3/100	2 98G	Θ	9198	- 0 5444	0.9832	35
	00% 92/92	[00:36<	<00:00	, 2.5	55it/s]		
mAP50	mAP50-95	Class): 100%				Box(P 3.14it/s]	R
0.71	0.519	all		362	750	0.853	0.665
			hov	1000	cle loce	dfl loss	Instances
Size		_			_	_	
	4/100 00% 92/92				0.536 57it/s]	0.9847	45
mAP50		Class	Ir	nages	Instances	Box(P 3.20it/s]	R
		all	12/12		750		0.667
0.722	0.53	4					

Size	Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
8			0.9281		0.9765	98
		Class	00:00, 2.5 Images	Instances		R
		all	12/12 [00:0 362			0.665
0.707	0.5	19				
Size	Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
8			0.9622 00:00, 2.5		0.9658	17
		Class	Images	Instances		R
		all	12/12 [00:0 362			0.661
0.707	0.53	18				
Size	Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
8			0.9251 <00:00, 2.6		0.9808	75
		Class	Images	Instances		R
		all	12/12 [00:0 362			0.668
	0.52					
Size	Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
640: 1	88/100 100% 92/93	2.84G	0.9467 <00:00, 2.6	0.5429 3it/sl	0.9746	120
		Class	Images 12/12 [00:0	Instances	Box(P	
		all	362	750		
0.704		19				_
Size	•	_	box_loss	_	_	Instances
			0.931 00:00, 2.8		0.9727	34
		Class		Instances		R
0.712		all	362	750	0.858	0.657
			ha 1	-1 - 1	441 1	Tuetenes
Size	Epoch	_	_	cls_loss	_	Instances
	90/100 L00% 92/92	2 [00:31<	<00:00, 2.8	0.5128 8it/s]		35
		Class	Images	Instances	Box(P	R

```
mAP50 mAP50-95): 100% 12/12 [00:06<00:00, 1.85it/s]
                            362 750 0.855
                  all
                                                         0.653
0.717
          0.532
Closing dataloader mosaic
albumentations: Blur(p=0.01, blur limit=(3, 7)), MedianBlur(p=0.01,
blur limit=(3, 7)), ToGray(p=0.01), CLAHE(p=0.01, clip limit=(1, 4.0),
tile grid size=(8, 8))
/usr/lib/python3.10/multiprocessing/popen fork.py:66: RuntimeWarning:
os.fork() was called. os.fork() is incompatible with multithreaded
code, and JAX is multithreaded, so this will likely lead to a
deadlock.
 self.pid = os.fork()
                       box loss cls loss dfl loss Instances
     Epoch GPU mem
Size
    91/100
               2.87G
                         0.8879
                                   0.4684
                                              0.9519
                                                            89
640: 100% 92/92 [00:33<00:00. 2.71it/s]
                Class
                         Images Instances
                                               Box(P
                                                             R
      mAP50-95): 100% 12/12 [00:06<00:00, 1.97it/s]
                  all 362 750
                                               0.859
                                                         0.658
          0.529
0.711
                       box loss cls loss
     Epoch GPU mem
                                            dfl loss
                                                     Instances
Size
                         0.8806
    92/100
                2.73G
                                   0.4542
                                              0.9468
                                                            18
640: 100% 92/92 [00:30<00:00, 3.01it/s]
                                               Box (P
                                                             R
                Class
                         Images Instances
      mAP50-95): 100% 12/12 [00:05<00:00, 2.03it/s]
mAP50
                  all
                            362 750
                                               0.878
                                                         0.644
0.713
           0.53
                       box loss cls loss dfl loss Instances
     Epoch GPU mem
Size
                                              0.9466
    93/100
                2.86G
                         0.8791
                                    0.455
                                                            20
640: 100% 92/92 [00:30<00:00, 3.00it/s]
                         Images Instances
                                                             R
                Class
                                               Box (P
      mAP50-95): 100% 12/12 [00:06<00:00, 1.86it/s]
                            362
                                  750
                 all
                                               0.848
                                                         0.664
0.72
         0.534
                       box loss cls loss dfl loss Instances
     Epoch GPU mem
Size
    94/100
                                                            19
                2.66G
                         0.8722
                                   0.4556
                                              0.9453
640: 100% 92/92 [00:29<00:00, 3.10it/s]
                Class
                         Images Instances
                                               Box(P
                                                             R
      mAP50-95): 100% 12/12 [00:06<00:00, 1.72it/s]
mAP50
                  all
                     362
                                      750
                                                         0.668
                                               0.844
0.722
          0.535
     Epoch
             GPU mem
                       box loss cls loss dfl loss Instances
```

C-:	
Size 95/100 2.92G 0.8701 0.4504 0.9455	21
640: 100% 92/92 [00:29<00:00, 3.12it/s]	21
Class Images Instances Box(P	R
mAP50 mAP50-95): 100% 12/12 [00:06<00:00, 1.80it/s]	
all 362 750 0.844	0.66
0.714 0.527	
Epoch GPU_mem box_loss cls_loss dfl_loss	Instances
Size	
96/100 3.2G 0.8574 0.442 0.9375 640: 100% 92/92 [00:29<00:00, 3.16it/s]	15
Class Images Instances Box(P	R
mAP50 mAP50-95): 100% 12/12 [00:06<00:00, 1.72it/s]	
all 362 750 0.817	0.679
0.719 0.533	
Epoch GPU mem box loss cls loss dfl loss	Instances
Size	
97/100 3.1G 0.8701 0.4482 0.9447	24
640: 100% 92/92 [00:30<00:00, 3.04it/s] Class Images Instances Box(P	R
mAP50 mAP50-95): 100% 12/12 [00:06<00:00, 1.83it/s]	
all 362 750 0.859	0.659
0.722 0.536	
Epoch GPU mem box loss cls loss dfl loss	Instances
<pre>Epoch GPU_mem box_loss cls_loss dfl_loss Size</pre>	
Size 98/100 3.06G 0.8645 0.4404 0.9366	
Size 98/100 3.06G 0.8645 0.4404 0.9366 640: 100% 92/92 [00:30<00:00, 3.03it/s]	53
Size 98/100 3.06G 0.8645 0.4404 0.9366 640: 100% 92/92 [00:30<00:00, 3.03it/s] Class Images Instances Box(P	53 R
Size 98/100 3.06G 0.8645 0.4404 0.9366 640: 100% 92/92 [00:30<00:00, 3.03it/s] Class Images Instances Box(P mAP50 mAP50-95): 100% 12/12 [00:06<00:00, 1.72it/s]	53 R
Size 98/100 3.06G 0.8645 0.4404 0.9366 640: 100% 92/92 [00:30<00:00, 3.03it/s] Class Images Instances Box(P mAP50 mAP50-95): 100% 12/12 [00:06<00:00, 1.72it/s]	53 R
Size 98/100 3.06G 0.8645 0.4404 0.9366 640: 100% 92/92 [00:30<00:00, 3.03it/s] Class Images Instances Box(P mAP50 mAP50-95): 100% 12/12 [00:06<00:00, 1.72it/s] all 362 750 0.842 0.723 0.537	53 R 0.667
Size 98/100 3.06G 0.8645 0.4404 0.9366 640: 100% 92/92 [00:30<00:00, 3.03it/s] Class Images Instances Box(P mAP50 mAP50-95): 100% 12/12 [00:06<00:00, 1.72it/s] all 362 750 0.842	53 R 0.667
Size 98/100 3.06G 0.8645 0.4404 0.9366 640: 100% 92/92 [00:30<00:00, 3.03it/s] Class Images Instances Box(P mAP50 mAP50-95): 100% 12/12 [00:06<00:00, 1.72it/s] all 362 750 0.842 0.723 0.537 Epoch GPU_mem box_loss cls_loss dfl_loss Size 99/100 2.99G 0.8494 0.4398 0.9329	53 R 0.667 Instances
Size 98/100 3.06G 0.8645 0.4404 0.9366 640: 100% 92/92 [00:30<00:00, 3.03it/s] Class Images Instances Box(P mAP50 mAP50-95): 100% 12/12 [00:06<00:00, 1.72it/s] all 362 750 0.842 0.723 0.537 Epoch GPU_mem box_loss cls_loss dfl_loss Size 99/100 2.99G 0.8494 0.4398 0.9329 640: 100% 92/92 [00:30<00:00, 3.00it/s]	53 R 0.667 Instances
Size 98/100	53 R 0.667 Instances
Size 98/100 3.06G 0.8645 0.4404 0.9366 640: 100% 92/92 [00:30<00:00, 3.03it/s] Class Images Instances Box(P mAP50 mAP50-95): 100% 12/12 [00:06<00:00, 1.72it/s] all 362 750 0.842 0.723 0.537 Epoch GPU_mem box_loss cls_loss dfl_loss Size 99/100 2.99G 0.8494 0.4398 0.9329 640: 100% 92/92 [00:30<00:00, 3.00it/s]	53 R 0.667 Instances 13 R
Size 98/100 3.06G 0.8645 0.4404 0.9366 640: 100% 92/92 [00:30<00:00, 3.03it/s] Class Images Instances Box(P MAP50 MAP50-95): 100% 12/12 [00:06<00:00, 1.72it/s] all 362 750 0.842 0.723 0.537 Epoch GPU_mem box_loss cls_loss dfl_loss Size 99/100 2.99G 0.8494 0.4398 0.9329 640: 100% 92/92 [00:30<00:00, 3.00it/s] Class Images Instances Box(P MAP50 MAP50-95): 100% 12/12 [00:06<00:00, 1.84it/s]	53 R 0.667 Instances 13 R
Size 98/100 3.06G 0.8645 0.4404 0.9366 640: 100% 92/92 [00:30<00:00, 3.03it/s] Class Images Instances Box(P MAP50 MAP50-95): 100% 12/12 [00:06<00:00, 1.72it/s] all 362 750 0.842 0.723 0.537 Epoch GPU_mem box_loss cls_loss dfl_loss Size 99/100 2.99G 0.8494 0.4398 0.9329 640: 100% 92/92 [00:30<00:00, 3.00it/s] Class Images Instances Box(P MAP50 MAP50-95): 100% 12/12 [00:06<00:00, 1.84it/s] all 362 750 0.855 0.722 0.534	53 R 0.667 Instances 13 R 0.66
Size 98/100	53 R 0.667 Instances 13 R 0.66
Size 98/100	53 R 0.667 Instances 13 R 0.66
Size 98/100	53 R 0.667 Instances 13 R 0.66 Instances
Size 98/100	53 R 0.667 Instances 13 R 0.66

all 362 750 0.853 0.661 0.723 0.536 100 epochs completed in 1.109 hours. Optimizer stripped from runs/detect/train/weights/last.pt, 6.3MB Optimizer stripped from runs/detect/train/weights/best.pt, 6.3MB Validating runs/detect/train/weights/best.pt... Ultralytics YOLOv8.2.58 ☐ Python-3.10.12 torch-2.3.0+cu121 CUDA:0 (Tesla T4, 15102MiB) Model summary (fused): 168 layers, 3,006,038 parameters, 0 gradients, 8.1 GFLOPs Images Instances Class Box(P R mAP50-95): 100% 12/12 [00:06<00:00, 1.81it/s] mAP50 750 362 0.841 0.669 all 0.723 0.536 Pepsi 347 750 0.841 0.669 0.723 0.536 Speed: 0.5ms preprocess, 2.5ms inference, 0.0ms loss, 2.6ms postprocess per image Results saved to runs/detect/train ☐ Learn more at https://docs.ultralytics.com/modes/train