```
!pip install ultralytics -q
!pip install pyyaml -q
```

```
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```

WhatsApp Image 2023-10-09 at 8.22.35 PM.jpeg   •••


```
from ultralytics import YOLO
import yaml
import cv2
from google.colab.patches import cv2_imshow
```

```
model =YOLO("yolov8n.pt")
```

```
Downloading https://github.com/ultralytics/assets/releases/download/v0.0.(
100%|██████████| 6.23M/6.23M [00:00<00:00, 62.4MB/s]
```

```
model.predict("/WhatsApp Image 2023-10-09 at 8.22.35 PM.jpeg",save=True,save_tx
    'clock', 75: 'vase', 76: 'scissors', 77: 'teddy bear', 78: 'hair
    drier', 79: 'toothbrush'}
    orig_img: array([[[ 78,  75,  61],
            [ 78,  75,  61],
            [ 76,  74,  63],
            ...,
            [ 44,  41,  37],
            [ 45,  41,  40],
            [ 49,  45,  44]],

           [[ 84,  81,  67],
            [ 82,  79,  65],
            [ 81,  79,  68],
            ...,
            [ 43,  40,  36],
            [ 43,  39,  38],
            [ 46,  42,  41]],

           [[102,  99,  84],
            [100,  97,  82],
            [102, 101,  87],
            ...,
            [ 47,  43,  42],
            [ 45,  41,  40],
            [ 45,  41,  40]],

           ...,

           [[ 61,  58,  53],
            [ 67,  64,  59],
            [ 71,  68,  63],
            ...,
            [ 61,  51,  57],
            [ 52,  49,  44],
            [ 54,  56,  44]],

           [[ 62,  59,  54],
            [ 65,  62,  57],
            [ 65,  62,  57],
            ...,
            [ 46,  47,  51],
            [ 43,  49,  44],
            [ 43,  50,  43]],

           [[ 67,  64,  59],
            [ 69,  66,  61],
            [ 67,  64,  59],
            ...,
            [ 37,  42,  45],
            [ 40,  49,  46],
            [ 39,  49,  43]]], dtype=uint8)
    orig_shape: (1104, 736)
    path: '/WhatsApp Image 2023-10-09 at 8.22.35 PM.jpeg'
    probs: None
    save_dir: 'runs/detect/predict'
    speed: {'preprocess': 21.791458129882812, 'inference':
    321.7735290527344, 'postprocess': 33.5540771484375}]
```

```
file_name="/usr/local/lib/python3.10/dist-packages/ultralytics/cfg/datasets/coc
with open(file_name,"r") as stream:
  names = yaml.safe_load(stream)["names"]
```

```
names
```

```
        22: 'zebra',
        23: 'giraffe',
        24: 'backpack',
        25: 'umbrella',
        26: 'handbag',
        27: 'tie',
        28: 'suitcase',
        29: 'frisbee',
        30: 'skis',
        31: 'snowboard',
        32: 'sports ball',
        33: 'kite',
        34: 'baseball bat',
        35: 'baseball glove',
        36: 'skateboard',
        37: 'surfboard',
        38: 'tennis racket',
        39: 'bottle',
        40: 'wine glass',
        41: 'cup',
        42: 'fork',
        43: 'knife',
        44: 'spoon',
        45: 'bowl',
        46: 'banana',
        47: 'apple',
        48: 'sandwich',
        49: 'orange',
        50: 'broccoli',
        51: 'carrot',
        52: 'hot dog',
        53: 'pizza',
        54: 'donut',
        55: 'cake',
        56: 'chair',
        57: 'couch',
        58: 'potted plant',
        59: 'bed',
        60: 'dining table',
        61: 'toilet',
        62: 'tv',
        63: 'laptop',
        64: 'mouse',
        65: 'remote',
        66: 'keyboard',
        67: 'cell phone',
        68: 'microwave',
        69: 'oven',
        70: 'toaster',
        71: 'sink',
        72: 'refrigerator',
        73: 'book',
        74: 'clock',
        75: 'vase',
        76: 'scissors',
        77: 'teddy bear',
        78: 'hair drier',
        79: 'toothbrush'}
```

```
lis = open("/content/runs/detect/predict/labels/WhatsApp Image 2023-10-09 at 8.
```

```
lis
```

```
['2 0.369782 0.737926 0.205734 0.11682\n',
 '2 0.853627 0.94484 0.285024 0.109394\n',
 '2 0.367448 0.935823 0.255005 0.127515\n',
 '2 0.722974 0.775774 0.217175 0.152198\n',
 '2 0.743779 0.367471 0.104968 0.0606297\n',
 '5 0.634305 0.243851 0.0941039 0.0775056\n',
 '2 0.381159 0.581387 0.135111 0.0915906\n',
 '2 0.938388 0.605896 0.119452 0.0942297\n',
 '2 0.712903 0.666653 0.164352 0.0959604\n',
 '2 0.391579 0.521001 0.125743 0.0714471\n',
 '7 0.649857 0.552923 0.168708 0.169907\n',
 '2 0.802312 0.424667 0.120699 0.0735205\n',
 '2 0.568823 0.419562 0.104277 0.0591692\n',
 '2 0.21865 0.375607 0.0944134 0.055346\n',
 '2 0.386459 0.458957 0.127085 0.0877241\n',
 '2 0.901872 0.539021 0.157849 0.0808674\n',
 '2 0.174987 0.394918 0.101065 0.0580173\n',
 '2 0.688703 0.327753 0.0884388 0.0507633\n',
 '2 0.269297 0.264663 0.067285 0.0326288\n',
 '2 0.597512 0.455866 0.102273 0.0582544\n',
 '2 0.851605 0.483326 0.134421 0.0811062\n',
 '2 0.130281 0.517135 0.139265 0.080393\n',
 '2 0.565479 0.371668 0.0973665 0.0535486\n',
```

```
           '2 0.540369 0.342477 0.0893191 0.0519532\n',
           '2 0.369759 0.403074 0.106672 0.0631513\n',
           '2 0.0410781 0.656702 0.0821561 0.105091\n',
           '5 0.400252 0.154186 0.0514822 0.0452379\n',
           '2 0.069295 0.218078 0.0564199 0.025028\n',
           '2 0.0792506 0.561755 0.158501 0.103947\n',
           '7 0.0781361 0.56136 0.156272 0.101589\n',
           '2 0.368533 0.329041 0.0933012 0.0559332\n',
           '2 0.389415 0.366067 0.0943271 0.0585486\n',
           '2 0.159284 0.471226 0.129143 0.070106\n',
           '2 0.509766 0.315878 0.0777015 0.0513878\n']
```

```
for l in lis:
  ind = int(l.split()[0])
  print(ind,names[ind])
```

```
    2 car
    2 car
    2 car
    2 car
    2 car
    5 bus
    2 car
    2 car
    2 car
    2 car
    7 truck
    2 car
    2 car
    2 car
    2 car
    2 car
    2 car
    2 car
    2 car
    2 car
    2 car
    2 car
    2 car
    2 car
    5 bus
    2 car
    2 car
    7 truck
    2 car
    2 car
    2 car
    2 car
```

```
for l in lis:
 li=lis[5].split()
 xc,yc,nw,nh = float(li[1]),float(li[2]),float(li[3]),float(li[4])
```

```
img = cv2.imread("/WhatsApp Image 2023-10-09 at 8.22.35 PM.jpeg")
h,w= img.shape[0],img.shape[1]
```

```
xc*=w
yc*=h
nw*=w
nh*=h
top_left=(int(xc-nw/2),int(yc-nh/2))
bot_right=(int(xc+nw/2),int(yc+nh/2))
```

```
top_left,bot_right
```

```
    ((432, 226), (501, 311))
```

```
img=cv2.rectangle(img,top_left,bot_right,(0,255,0),3)
cv2_imshow(img)
```

```
model.predict("/content/WhatsApp Image 2023-10-09 at 11.54.26 PM.jpeg",save=Tru

       'clock', 75: 'vase', 76: 'scissors', 77: 'teddy bear', 78: 'hair
    drier', 79: 'toothbrush'}
     orig_img: array([[[21, 14, 11],
            [21, 14, 11],
            [21, 14, 11],
            ...,
            [21, 16, 17],
```

```
        [15, 13, 13]],

       [[90, 61, 46],
        [89, 60, 45],
        [88, 59, 44],
        ...,
        [16, 14, 14],
        [16, 14, 14],
        [16, 14, 14]],

       [[90, 61, 46],
        [90, 61, 46],
        [91, 62, 47],
        ...,
        [15, 13, 13],
        [15, 13, 13],
        [15, 13, 13]]], dtype=uint8)
orig_shape: (601, 1068)
path: '/content/WhatsApp Image 2023-10-09 at 11.54.26 PM.jpeg'
probs: None
save_dir: 'runs/detect/predict'
speed: {'preprocess': 4.08935546875, 'inference': 173.10738563537598,
'postprocess': 1.4407634735107422}]
```