**STEP-BY-STEP PROCEDURE FOR YOLOv11**

Step-1: create a folder(yolov11\_numplate)  
Step-2:create a folder which contains images that are going to be trained and validated

Step-3:Run commands on terminal

Step-4:<https://pytorch.org/get-started/locally/>  
Step-5:In label studio(create project)do annotation manually

Step-6:Export the project into the environment  
Step-7:Create a separate folder train(contains all the images and labels) and val(contains some images and labels)

Step-8:create a python file(train.py) and yaml file (data\_custom.yaml) and download a yolomodel from<https://github.com/ultralytics/ultralytics?tab=readme-ov-file>

Step-9:Now run python train.py on terminal

Step-10:In(RUN>DETECT>TRAIN)best.pt—copy and paste it on environment as(yolov11.pt)  
Step-11:Create a predict.py file and run it on terminal

**TERMINAL PROGRAM**

cd environment  
conda create -n yolov11\_numplate python=3.11 -y

conda activate yolov11\_numplate

pip install ultralytics

Python  
>>>import torch

>>>torch.cuda.is\_available()  
If false—--exit()

install pytorch from pytorch web(pip3 install torch torchvision torchaudio --index-url <https://download.pytorch.org/whl/cu121>)

true—-exit()

Pip install label-studio

Label-studio

Python train.py  
Python predict.py

**PROGRAM FOR train.py**

from ultralytics import YOLO

model = YOLO("yolo11m.pt")

model.train(data = "data\_custom.yaml", imgsz = 640, batch = 4, epochs = 100, workers = 0, device = 0)

**PROGRAM FOR data\_custom.yaml**

train: C:\Users\mdfah\OneDrive\Documents\yolov11\_numplate\train

val: C:\Users\mdfah\OneDrive\Documents\yolov11\_numplate\val

nc: 2

names: ["car","taxi"]

**PROGRAM FOR predict.py**

from ultralytics import YOLO

model = YOLO("yolov11.pt")

model.predict(source = "4.jpg", show=True, save=True, conf=0.4)