

- Darknet설치

```
soorim@soorim-virtual-machine:~$ git clone https://github.com/AlexeyAB/darknet.git
'darknet'에 복제합니다...
remote: Enumerating objects: 8, done.
remote: Counting objects: 100% (8/8), done.
remote: Compressing objects: 100% (4/4), done.
remote: Total 14730 (delta 2), reused 7 (delta 2), pack-reused 14722
오브젝트를 받는 중: 100% (14730/14730), 13.28 MiB | 5.05 MiB/s, 완료.
델타를 알아내는 중: 100% (10017/10017), 완료.
연결을 확인하는 중입니다... 완료.
```

- 버전 바꾸기

```
soorim@soorim-virtual-machine:~$ cd darknet/
soorim@soorim-virtual-machine:~/darknet$ ls
3rdparty      build.ps1      data           results
CMakeLists.txt build.sh        image_yolov3.sh scripts
DarknetConfig.cmake.in cfg             image_yolov4.sh src
LICENSE       cmake          include        vcpkg.json
Makefile      darknet.py     json_mjpeg_streams.sh video_yolov3.sh
README.md     darknet_images.py net_cam_v3.sh  video_yolov4.sh
build         darknet_video.py net_cam_v4.sh
soorim@soorim-virtual-machine:~/darknet$ git checkout darknet_yolo_v3
Note: checking out 'darknet_yolo_v3'.
```

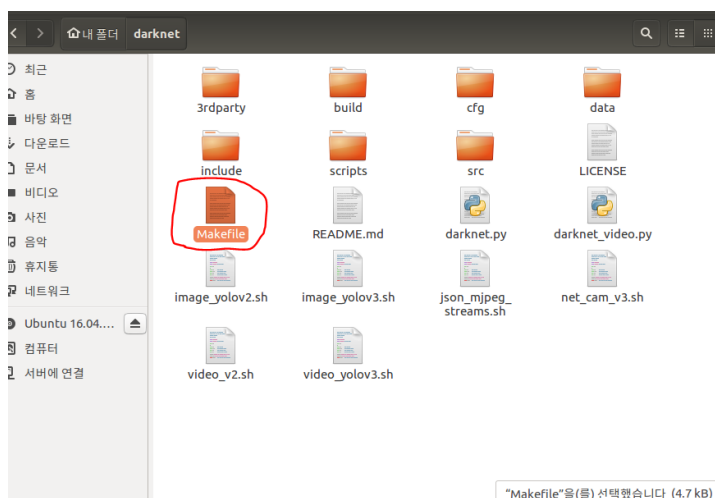
You are in 'detached HEAD' state. You can look around, make experimental changes and commit them, and you can discard any commits you make in this state without impacting any branches by performing another checkout.

If you want to create a new branch to retain commits you create, you may do so (now or later) by using -b with the checkout command again. Example:

```
git checkout -b <new-branch-name>
```

HEAD의 현재 위치는 5e850c2... Minor fixes

- Makefile 수정



```
GPU=0
CUDNN=0
CUDNN_HALF=0
OPENCV=1| —
AVX=0
OPENMP=0
LIBSO=1 —
```

```
soorim@soorim-virtual-machine:~/darknet$ make
```

- 에러 발생 및 해결

```
soorim@soorim-virtual-machine:~/darknet$ make
chmod +x *.sh
g++ -std=c++11 -Iinclude/ -DOPENCV `pkg-config --cflags opencv` -Wall -Wfatal-errors -Wno-
unused-result -Wno-unknown-pragmas -fPIC -Ofast -DOPENCV -fPIC -c ./src/http_stream.cpp -o o
bj/http_stream.o
Package opencv was not found in the pkg-config search path.
Perhaps you should add the directory containing `opencv.pc'
to the PKG_CONFIG_PATH environment variable
No package 'opencv' found
In file included from ./src/http_stream.cpp:1:0:
./src/http_stream.h:7:39: fatal error: opencv2/highgui/highgui_c.h: 그런 파일이나 디렉터리가
없습니다
compilation terminated.
Makefile:142: 'obj/http_stream.o' 타겟에 대한 명령이 실패했습니다
make: *** [obj/http_stream.o] 오류 1
```

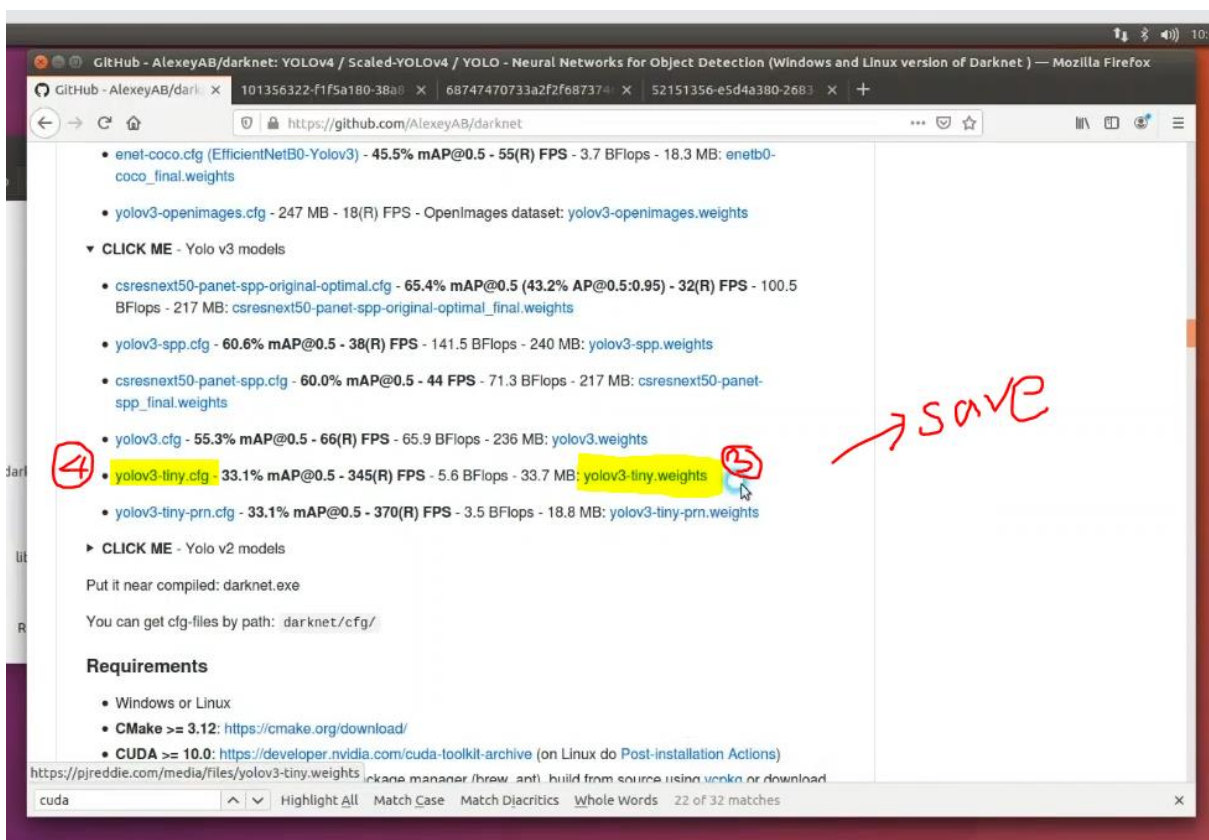
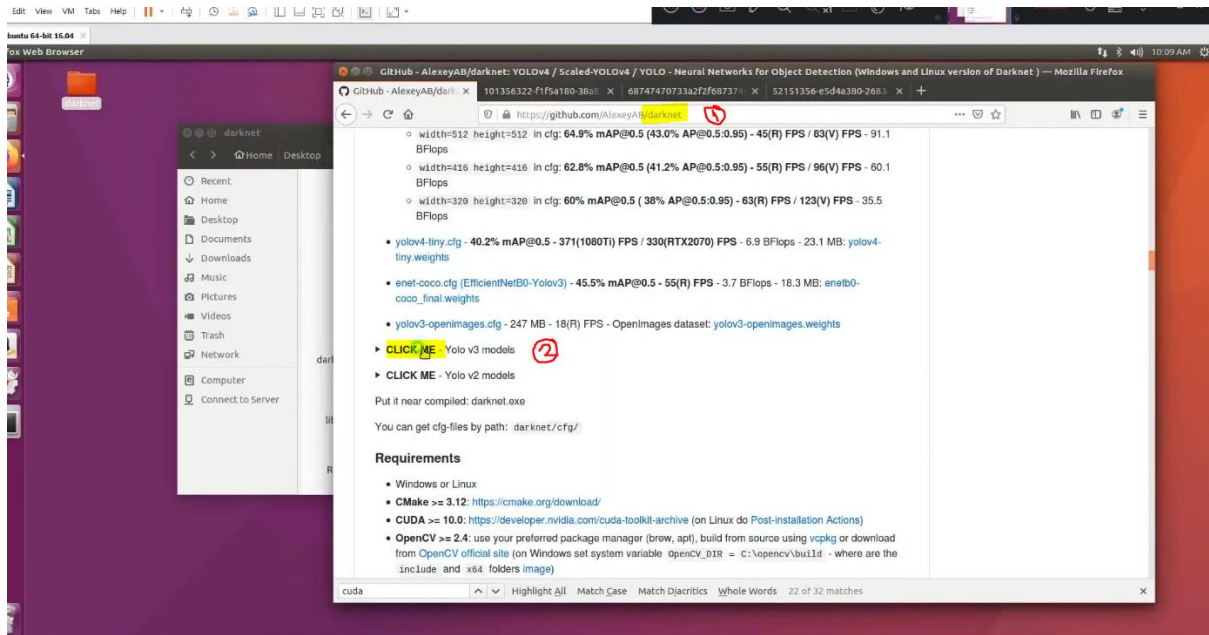
- 아래 명령어 실행

```
soorim@soorim-virtual-machine:~/darknet$ sudo apt install libopencv-dev
```

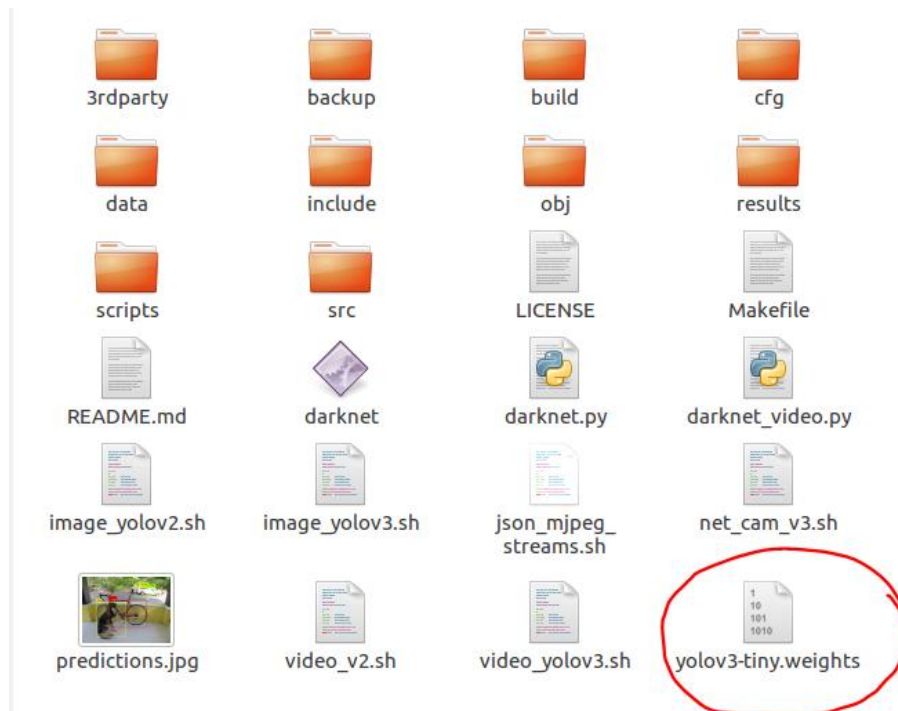
```
soorim@soorim-virtual-machine:~/darknet$ make
```

- 결과 Make 성공

예제 실행하기 위한 준비



다운로드 후 darknet폴더로 옮겨 놓기



```
soorim@soorim-virtual-machine:~/darknet$ ./darknet detector test ./cfg/coco.data ./cfg/yolov3-tiny.cfg ./yolov3-tiny.weights data/dog.jpg -i 0 -thresh 0.25
```

```
soorim@soorim-virtual-machine:~/darknet$ ./darknet detector test ./cfg/coco.data
./cfg/yolov3-tiny.cfg ./yolov3-tiny.weights data/dog.jpg -i 0 -thresh 0.25
layer    filters  size  input              output
 0 conv    16  3 x 3 / 1  416 x 416 x 3  ->  416 x 416 x 16  0.150 BF
 1 max      2  2 x 2 / 2  416 x 416 x 16  ->  208 x 208 x 16  0.003 BF
 2 conv    32  3 x 3 / 1  208 x 208 x 16  ->  208 x 208 x 32  0.399 BF
 3 max      2  2 x 2 / 2  208 x 208 x 32  ->  104 x 104 x 32  0.001 BF
 4 conv    64  3 x 3 / 1  104 x 104 x 32  ->  104 x 104 x 64  0.399 BF
 5 max      2  2 x 2 / 2  104 x 104 x 64  ->   52 x  52 x 64  0.001 BF
 6 conv   128  3 x 3 / 1   52 x  52 x 64  ->   52 x  52 x 128 0.399 BF
 7 max      2  2 x 2 / 2   52 x  52 x 128  ->   26 x  26 x 128 0.000 BF
 8 conv   256  3 x 3 / 1   26 x  26 x 128  ->   26 x  26 x 256 0.399 BF
```

- 실행 결과

```
20 route 19 8
21 conv 256 3 x 3 / 1  26 x  26 x 384 ->  26 x  26 x 256 1.196 BF
22 conv 255 1 x 1 / 1  26 x  26 x 256 ->  26 x  26 x 255 0.088 BF
23 yolo
Total BFLOPS 5.571
Loading weights from ./yolov3-tiny.weights...
seen 64
Done!
data/dog.jpg: Predicted in 976.734000 milli-second:
dog: 81%
bicycle: 39%
car: 71%
truck: 41%
truck: 61%
car: 40%
```