Project development phase
Sprint - 3 Test case

Date	19 November 2022
Team ID	PNT2022TMID03574
Project Name	VirtualEye-Lifeguard for Swimming Pools to Detect the Active Drowning

```
[net] #
 Testing #
 batch=1
 # subdivisions=1 #
 Training batch=64
 subdivisions=16
 width=608 height=608
 channels=3
 momentum=0.9
 decay=0.0005
 angle=0 saturation =
 1.5 exposure =
 1.5 hue=.1

 learning_rate=0.01
 burn_in=1000 max_batches
 = 500200 policy=steps
 steps=400000,450000
 scales=.1,.1

 [convolutional]
 batch_normalize=1
 filters=32 size=3
 stride=1 pad=1
 activation=leaky

 # Downsample

 [convolutional]
 batch_normalize=1
 filters=64 size=3
 stride=2 pad=1
 activation=leaky

 [convolutional]
 batch_normalize=1
 filters=32 size=1
 stride=1 pad=1
 activation=leaky

 [convolutional]
 batch_normalize=1
 filters=64 size=3
 stride=1 pad=1
 activation=leaky
 [shortcut]
 from=-3
 activation=linea
 r #
```

Downsample

```
[convolutional]
batch_normalize=1
filters=128 size=3
stride=2 pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=64 size=1
stride=1 pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=128 size=3
stride=1 pad=1
activation=leaky

[shortcut] from=-3
activation=linear

[convolutional]
batch_normalize=1
filters=64 size=1
stride=1 pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=128 size=3
stride=1 pad=1
activation=leaky

[shortcut] from=-3
activation=linear

# Downsample

[convolutional]
batch_normalize=1
filters=256 size=3
stride=2 pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=128 size=1
stride=1 pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=256 size=3
stride=1 pad=1
activation=leaky
```

```
[shortcut] from=-3
activation=linear

[convolutional]
batch_normalize=1
filters=128 size=1
stride=1 pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=256 size=3
stride=1 pad=1
activation=leaky

[shortcut] from=-3
activation=linear

[convolutional]
batch_normalize=1
filters=128 size=1
stride=1 pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=256 size=3
stride=1 pad=1
activation=leaky

[shortcut] from=-3
activation=linear

[convolutional]
batch_normalize=1
filters=128 size=1
stride=1 pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=256 size=3
stride=1 pad=1
activation=leaky

[shortcut] from=-3
activation=linear


[convolutional]
batch_normalize=1
filters=128 size=1
stride=1 pad=1
activation=leaky

[convolutional]
batch_normalize=1
```

filters=256 size=3
stride=1 pad=1
activation=leaky

[shortcut] from=-3
activation=linear

[convolutional]
batch_normalize=1
filters=128 size=1
stride=1 pad=1
activation=leaky
[convolutional]
batch_normalize=1
filters=256 size=3
stride=1 pad=1
activation=leaky

[shortcut] from=-3
activation=linear

[convolutional]
batch_normalize=1
filters=128 size=1
stride=1 pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=256 size=3
stride=1 pad=1
activation=leaky

[shortcut] from=-3
activation=linear

[convolutional]
batch_normalize=1
filters=128 size=1
stride=1 pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=256 size=3
stride=1 pad=1
activation=leaky

[shortcut] from=-3
activation=linear
#

Downsample

[convolutional]
batch_normalize=1
filters=512 size=3
stride=2

```
pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=256 size=1
stride=1 pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=512 size=3
stride=1 pad=1
activation=leaky

[shortcut] from=-3
activation=linear


[convolutional]
batch_normalize=1
filters=256 size=1
stride=1 pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=512 size=3
stride=1 pad=1
activation=leaky

[shortcut] from=-3
activation=linear


[convolutional]
batch_normalize=1
filters=256 size=1
stride=1 pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=512 size=3
stride=1
pad=1
activation=leaky

[shortcut] from=-3
activation=linear


[convolutional]
batch_normalize=1
filters=256 size=1
stride=1 pad=1
activation=leaky
```

```
[convolutional]
batch_normalize=1
filters=512 size=3
stride=1 pad=1
activation=leaky

[shortcut] from=-3
activation=linear

[convolutional]
batch_normalize=1
filters=256 size=1
stride=1 pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=512 size=3
stride=1 pad=1
activation=leaky

[shortcut] from=-3
activation=linear


[convolutional]
batch_normalize=1
filters=256 size=1
stride=1 pad=1
activation=leaky
[convolutional]
batch_normalize=1
filters=512 size=3
stride=1 pad=1
activation=leaky

[shortcut] from=-3
activation=linear


[convolutional]
batch_normalize=1
filters=256 size=1
stride=1 pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=512 size=3
stride=1 pad=1
activation=leaky

[shortcut] from=-3
activation=linear

[convolutional]
batch_normalize=1
filters=256 size=1
```

```
stride=1 pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=512 size=3
stride=1 pad=1
activation=leaky

[shortcut] from=-3
activation=linear
#

Downsample

[convolutional]
batch_normalize=1
filters=1024 size=3
stride=2 pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=512 size=1
stride=1 pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=1024 size=3
stride=1 pad=1
activation=leaky

[shortcut] from=-3
activation=linear

[convolutional]
batch_normalize=1
filters=512 size=1
stride=1 pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=1024 size=3
stride=1 pad=1
activation=leaky

[shortcut] from=-3
activation=linear

[convolutional]
batch_normalize=1
filters=512 size=1
stride=1 pad=1
activation=leaky
```

```
[convolutional]
batch_normalize=1
filters=1024 size=3
stride=1 pad=1
activation=leaky

[shortcut] from=-3
activation=linear

[convolutional]
batch_normalize=1
filters=512 size=1
stride=1 pad=1
activation=leaky

[convolutional]
batch_normalize=1
filters=1024 size=3
stride=1 pad=1
activation=leaky

[shortcut] from=-3
activation=linear

######################

[convolutional]
batch_normalize=1
filters=512 size=1
stride=1 pad=1
activation=leaky

[convolutional]
batch_normalize=1
size=3 stride=1
pad=1 filters=1024
activation=leaky

[convolutional]
batch_normalize=1
filters=512 size=1
stride=1 pad=1
activation=leaky

[convolutional]
batch_normalize=1
size=3 stride=1
pad=1 filters=1024
activation=leaky

[convolutional]
batch_normalize=1
filters=512 size=1
stride=1 pad=1
activation=leaky

[convolutional]
batch_normalize=1
```

```
size=3 stride=1
pad=1 filters=1024
activation=leaky

[convolutional]
size=1 stride=1
pad=1 filters=255
activation=linear


[yolo] mask
= 6,7,8
anchors = 10,13, 16,30, 33,23, 30,61, 62,45, 59,119, 116,90,
156,198, 373,326
classes=80 num=9
jitter=.3
ignore_thresh = .7
truth_thresh = 1
random=1


[route] layers =
-4

[convolutional]
batch_normalize=1
filters=256 size=1
stride=1 pad=1
activation=leaky

[upsample]
stride=2

[route] layers
= -1, 61



[convolutional]
batch_normalize=1
filters=256 size=1
stride=1 pad=1
activation=leaky

[convolutional]
batch_normalize=1
size=3 stride=1
pad=1 filters=512
activation=leaky

[convolutional]
batch_normalize=1
filters=256 size=1
stride=1 pad=1
activation=leaky

[convolutional]
batch_normalize=1
```

```
size=3 stride=1
pad=1 filters=512
activation=leaky

[convolutional]
batch_normalize=1
filters=256 size=1
stride=1 pad=1
activation=leaky

[convolutional]
batch_normalize=1
size=3 stride=1
pad=1 filters=512
activation=leaky

[convolutional]
size=1 stride=1
pad=1 filters=255
activation=linear


[yolo] mask
= 3,4,5
anchors =
10,13,
16,30,
33,23,
30,61,
62,45,
59,119,
116,90,
156,198, 373,326
classes=80
num=9
jitter=.3
ignore_thresh = .7
truth_thresh   =   1
random=1



[route] layers =
-4

[convolutional]
batch_normalize=1
filters=128 size=1
stride=1 pad=1
activation=leaky

[upsample]
stride=2

[route] layers
= -1, 36
```

```
[convolutional]
batch_normalize=1
filters=128 size=1
stride=1 pad=1
activation=leaky

[convolutional]
batch_normalize=1
size=3 stride=1
pad=1 filters=256
activation=leaky

[convolutional]
batch_normalize=1
filters=128 size=1
stride=1 pad=1
activation=leaky

[convolutional]
batch_normalize=1
size=3 stride=1
pad=1 filters=256
activation=leaky

[convolutional]
batch_normalize=1
filters=128 size=1
stride=1 pad=1
activation=leaky

[convolutional]
batch_normalize=1
size=3 stride=1
pad=1 filters=256
activation=leaky

[convolutional]
size=1 stride=1
pad=1 filters=255
activation=linear


[yolo] mask
= 0,1,2
anchors = 10,13, 16,30, 33,23, 30,61, 62,45, 59,119, 116,90,
156,198, 373,326
classes=80 num=9
jitter=.3
ignore_thresh = .7
truth_thresh = 1
random=1
```