

## 8. Image Pyramids (Піраміди зображенъ)

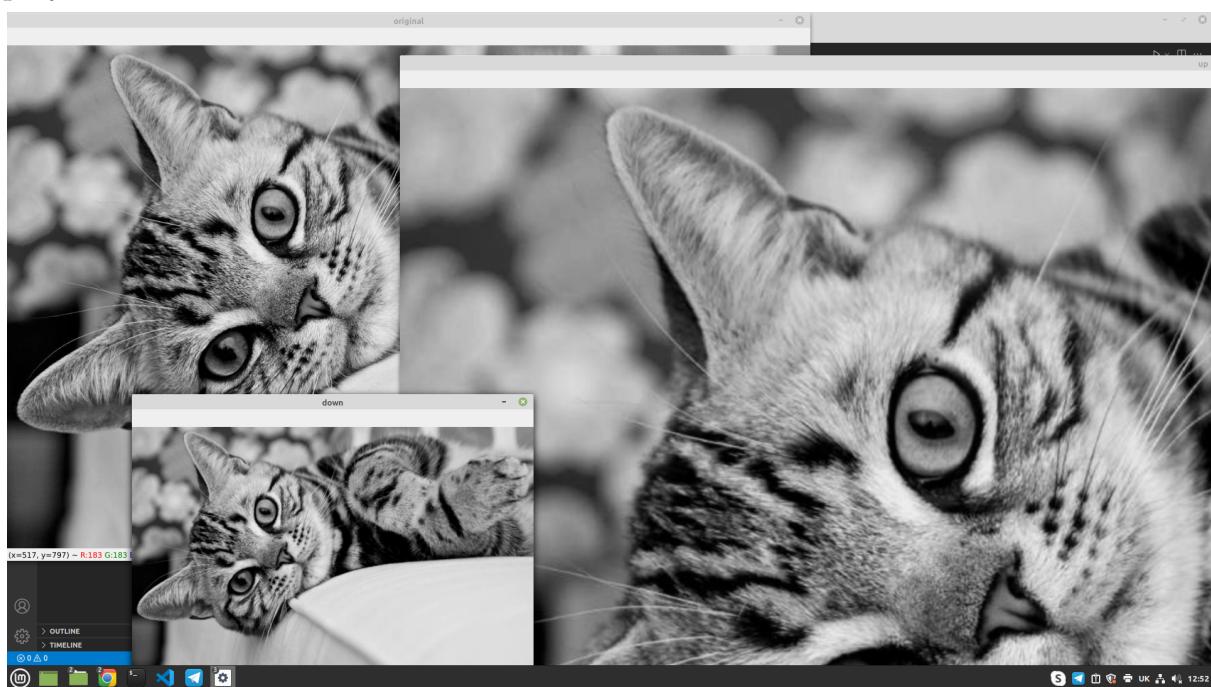
код:

```
import cv2
```

```
img = cv2.imread ('/home/rodion/yuliiao/aboba/cv/basic/cat.jpg')
rows, cols, _channels = map(int, img.shape)
cv2.imshow('original', img)
up = cv2.pyrUp(img, dstsize=(2 * cols, 2 * rows))
cv2.imshow("up", up)

down = cv2.pyrDown(img, dstsize=(cols // 2, rows // 2))
cv2.imshow("down", down)
cv2.waitKey (0)
```

результат:



## 9. Основні порогові операції (Basic Thresholding Operations)

код:

```
import cv2
```

```
img = cv2.imread("/home/rodion/yuliao/aboba/cv/basic/cat.jpg")
img = cv2.cvtColor(img, cv2.COLOR_BGR2GRAY)
cv2.imshow("original", img)
```

```
n,dst = cv2.threshold(img, 0, 255, cv2.THRESH_BINARY)
cv2.imshow("THRESH BINARY", dst)
```

```
n,dst = cv2.threshold(img, 0, 255, cv2.THRESH_BINARY_INV)
cv2.imshow("THRESH BINARY INV", dst)
```

```
n,dst = cv2.threshold(img, 30, 210, cv2.THRESH_TRUNC)
cv2.imshow("THRESH TRUNC", dst)
```

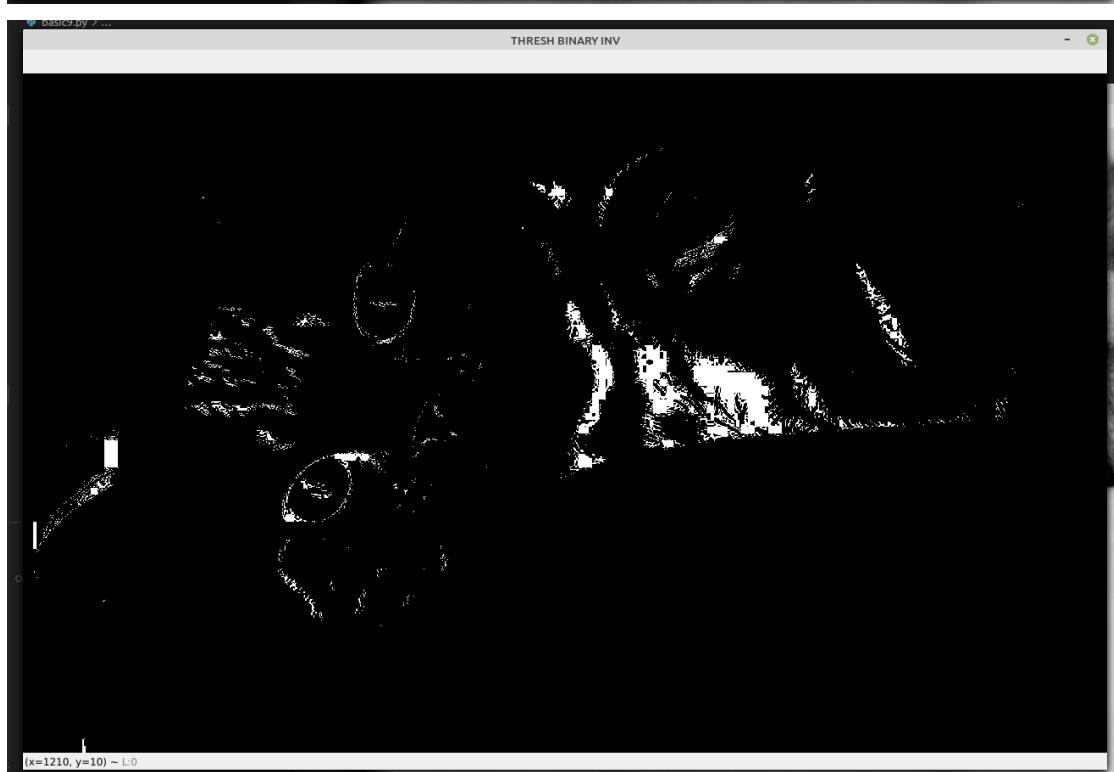
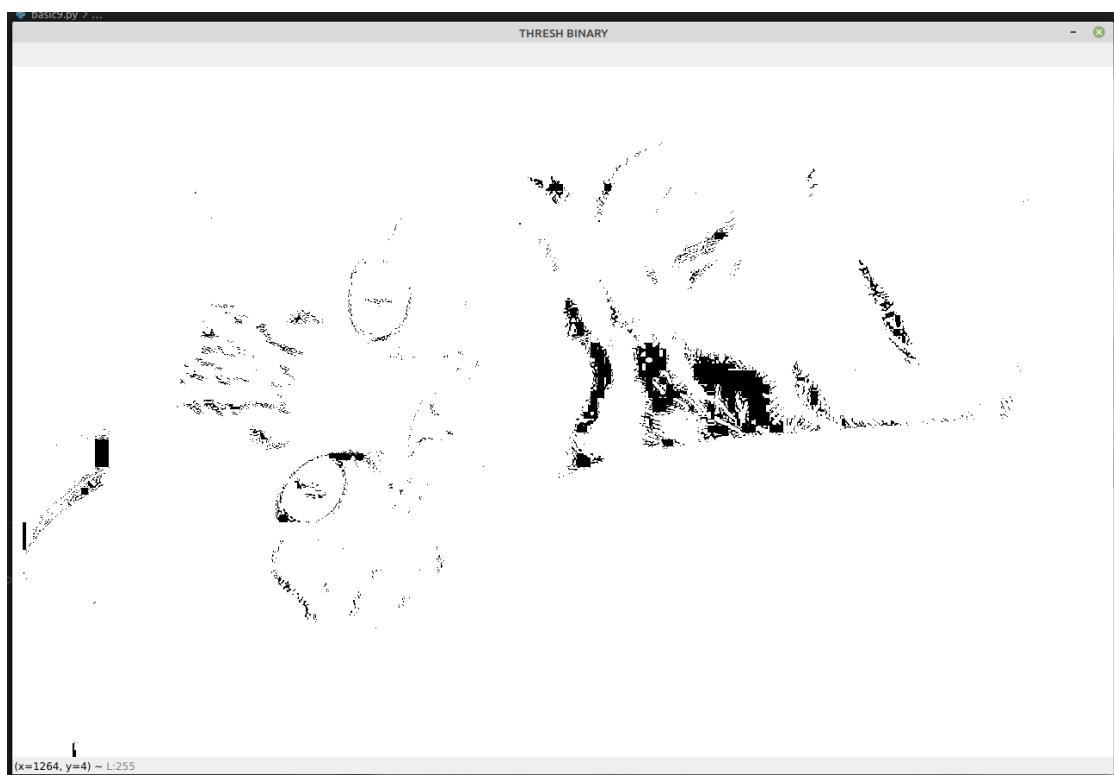
```
n,dst = cv2.threshold(img, 90, 240, cv2.THRESH_TOZERO)
cv2.imshow("THRESH TOZERO", dst)
```

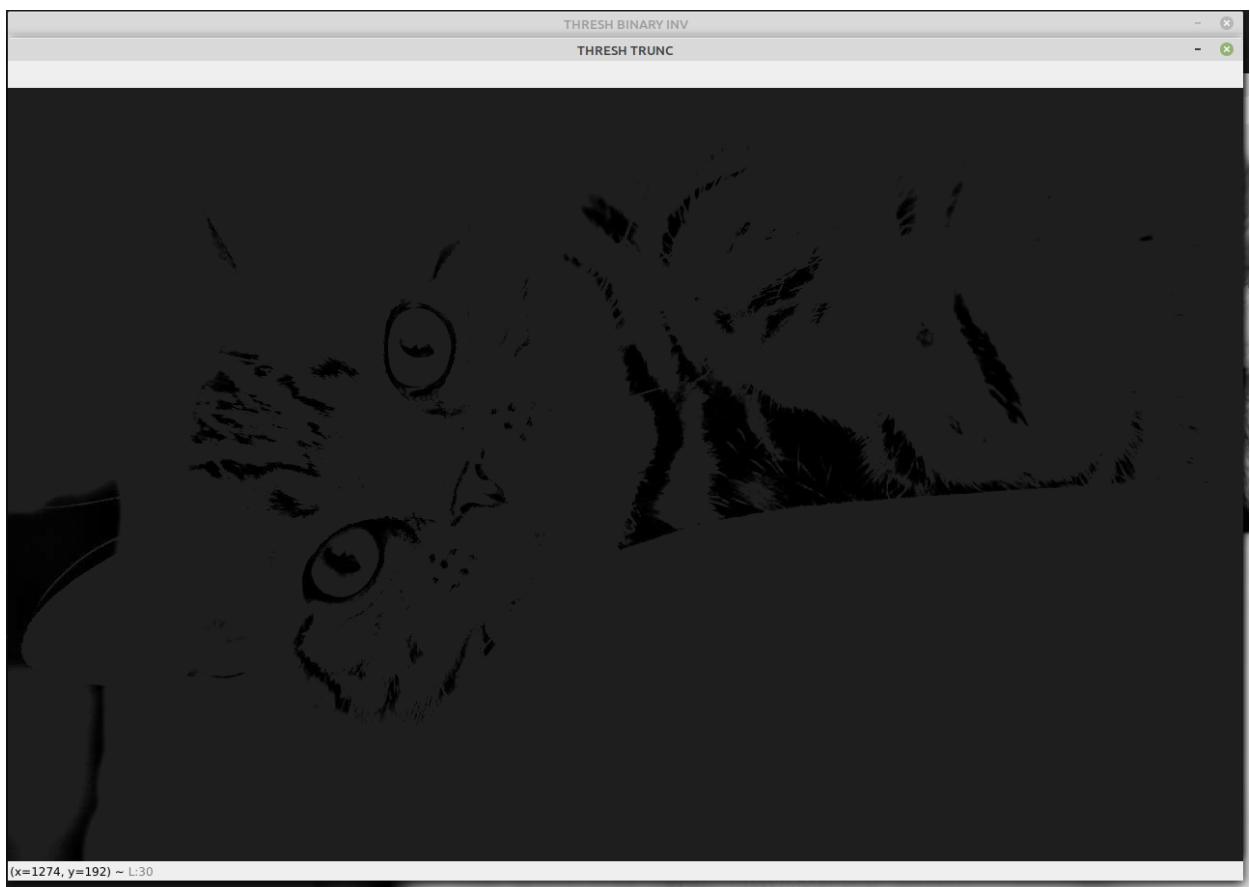
```
n,dst = cv2.threshold(img, 30, 255, cv2.THRESH_TOZERO_INV)
cv2.imshow("THRESH TOZERO INV ", dst)
```

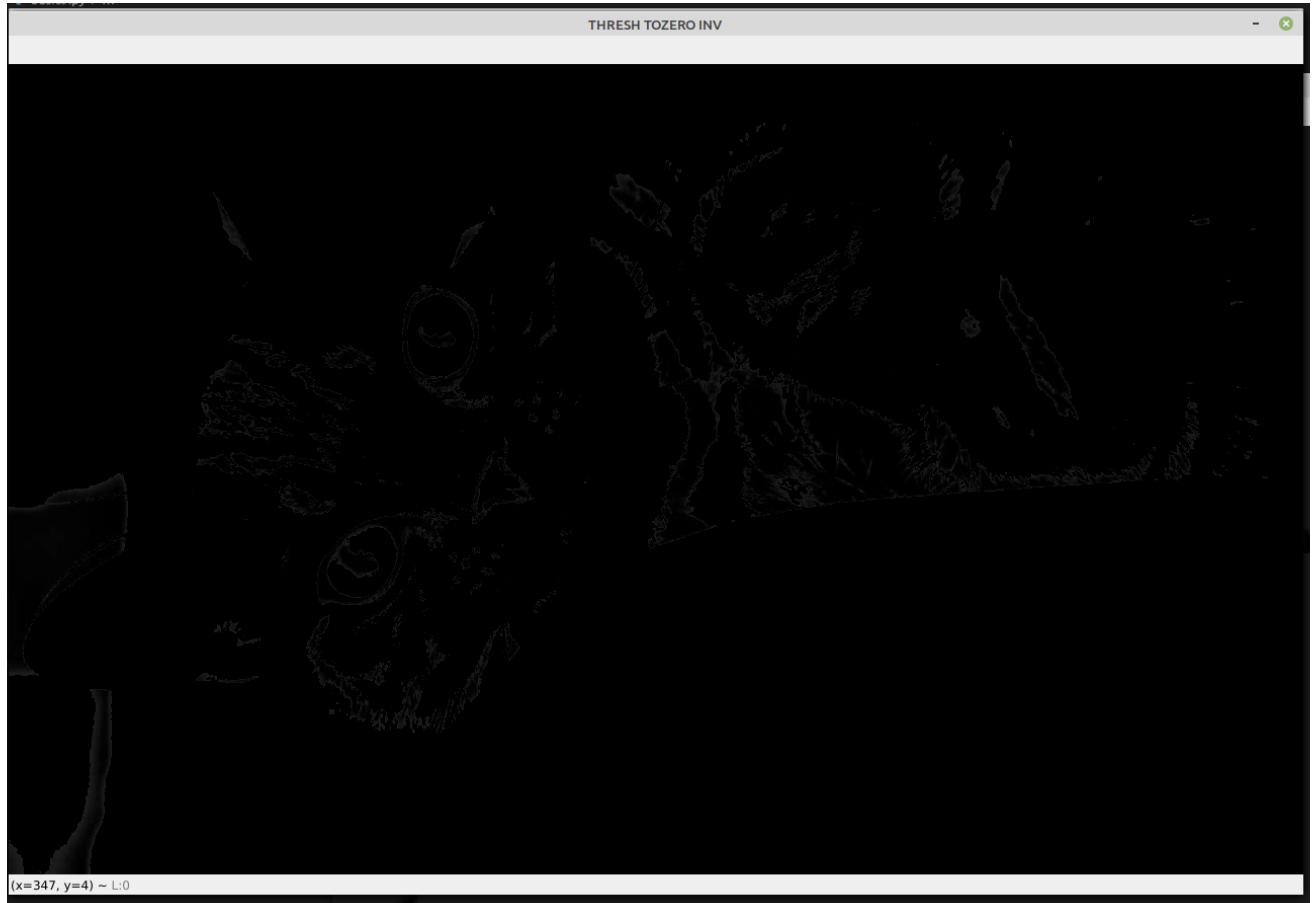
```
cv2.waitKey(0)
```

результат:









## 10. Порогові операції з використанням inRange (Thresholding Operations using inRange)

Код:

```
import cv2
img=cv2.imread("/home/rodion/yuliao/aboba/cv/basic/smoothing.jpg")
cv2.imshow("original",img)
img = cv2.cvtColor (img, cv2.COLOR_BGR2HSV)
f = cv2.inRange (img, (50, 30, 50), (255, 255, 255))

cv2.imshow("inRange",f)
cv2.waitKey (0)
```

Результат:

