*** Displaying Coordinates of the Image**

Task 1.ipynb U

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[1]
```
import cv2
```

[2]
```
def click_event(event, x, y, flags, params):
    if event == cv2.EVENT_LBUTTONDOWN:
        print(x,' ',y)
        font = cv2.FONT_HERSHEY_SIMPLEX
        cv2.putText(img, str(x)+','+str(y), (x,y), font, 1, (255,0,0),2)
        cv2.imshow('image', img)
    if event == cv2.EVENT_RBUTTONDOWN:
        print(x,' ',y)
        font = cv2.FONT_HERSHEY_SIMPLEX
        b = img[y,x,0]
        g = img[y,x,1]
        r = img[y,x,2]
        cv2.putText(img, str(b)+','+str(g)+','+str(r), (x,y), font, 1, (255,255,0),2)
        cv2.imshow('image', img)
```

[3]
```
if __name__ == "__main__":
    img = cv2.imread('img.jpg',1)
    cv2.imshow('image', img)
    cv2.setMouseCallback('image', click_event)
    cv2.waitKey()
    cv2.destroyAllWindows()
```

```
386   105
190   103
135   317
198   431
379   437
40   39
88   191
177   149
```

*** High Dynamic Range of Images**

Task 2.ipynb U

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[1]
```
import cv2 as cv
import numpy as np
```

[2]
```
img_fn = ["img0.jfif", "img1.jfif", "img2.jfif", "img3.jfif"]
img_list = [cv.imread(fn) for fn in img_fn]
exposure_times = np.array([15.0, 2.5, 0.25, 0.0333], dtype=np.float32)
```

[3]
```
merge_debevec = cv.createMergeDebevec()
hdr_debevec = merge_debevec.process(img_list, times=exposure_times.copy())
merge_robertson = cv.createMergeRobertson()
hdr_robertson = merge_robertson.process(img_list, times=exposure_times.copy())
```

[4]
```
tonemap1 = cv.createTonemap(gamma = 2.2)
res_debevec = tonemap1.process(hdr_debevec.copy())
res_robertson = tonemap1.process(hdr_robertson.copy())
```

[5]
```
res_debevec_8bits = np.clip(res_debevec*255,0,255).astype('uint8')
res_robertson_8bits = np.clip(res_robertson*255,0,255).astype('uint8')
```

[6]
```
cv.imwrite('ldr_debevec2.jpg', res_debevec_8bits)
cv.imwrite('ldr_robertson2.jpg', res_robertson_8bits)
```

... True

*** CNN**