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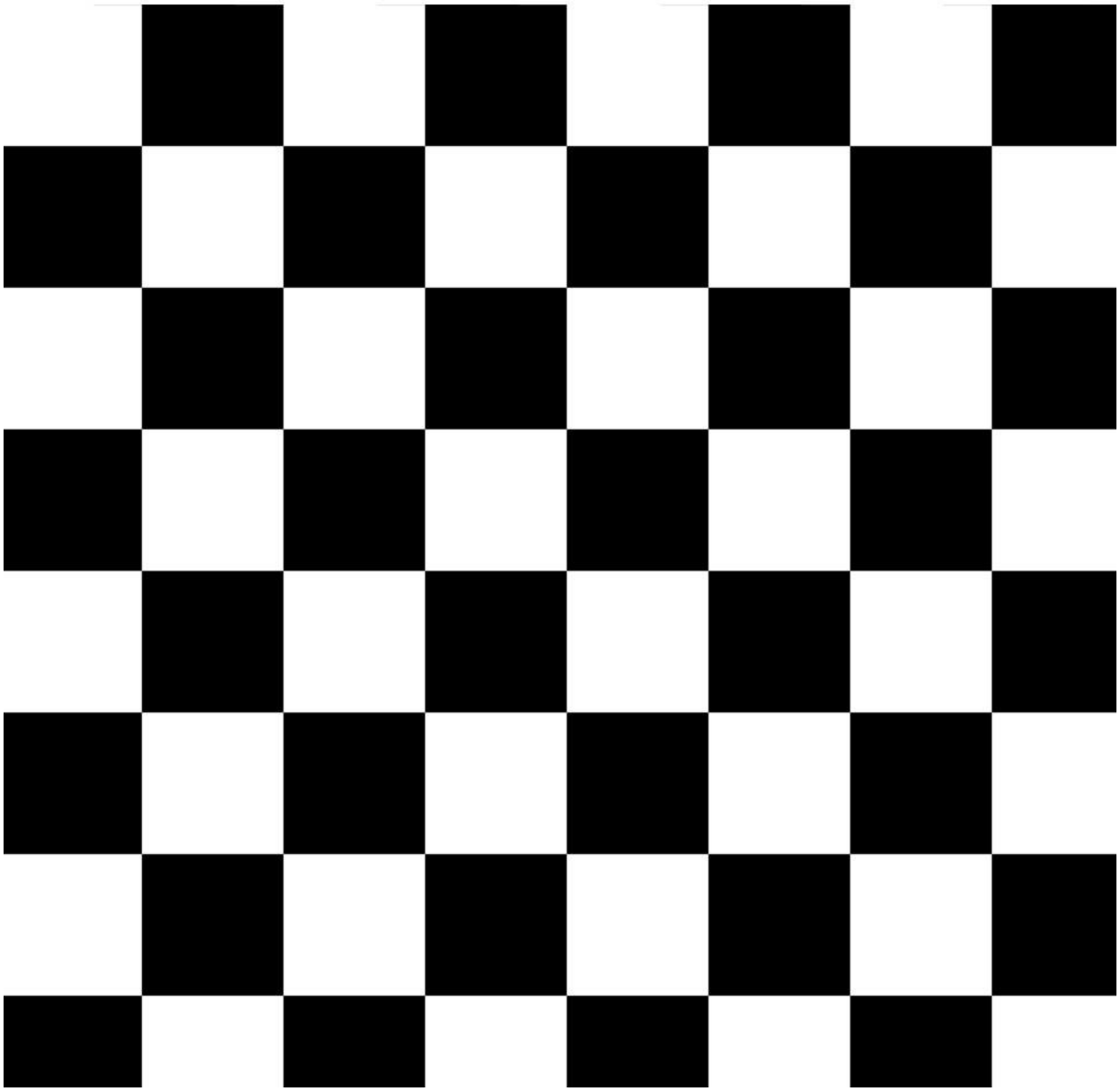
#MINIPROJECT-2--> 8x8 Checkerboard using numpy and opencv

```
import numpy as np

import cv2


img = np.zeros((800,800,3)) #creates a black background of 800x800 pixels


img[0:100,0:100] = 255,255,255 #white

img[0:100,200:300] = 255,255,255

img[0:100,400:500] = 255,255,255

img[0:100,600:700] = 255,255,255


img[100:200,100:200] = 255,255,255

img[100:200,300:400] = 255,255,255

img[100:200,500:600] = 255,255,255

img[100:200,700:800] = 255,255,255


img[200:300,200:300] = 255,255,255

img[200:300,0:100] = 255,255,255

img[200:300,400:500] = 255,255,255
```

```
img[200:300,600:700] = 255,255,255

img[300:400,300:400] = 255,255,255
img[300:400,100:200] = 255,255,255
img[300:400,500:600] = 255,255,255
img[300:400,700:800] = 255,255,255

img[400:500,0:100] = 255,255,255
img[400:500,200:300] = 255,255,255
img[400:500,400:500] = 255,255,255
img[400:500,600:700] = 255,255,255

img[500:600,100:200] = 255,255,255
img[500:600,300:400] = 255,255,255
img[500:600,500:600] = 255,255,255
img[500:600,700:800] = 255,255,255

img[600:700,0:100] = 255,255,255
img[600:700,200:300] = 255,255,255
img[600:700,400:500] = 255,255,255
```

```
img[600:700,600:700] = 255,255,255


img[700:800,100:200] = 255,255,255
img[700:800,300:400] = 255,255,255
img[700:800,500:600] = 255,255,255
img[700:800,700:800] = 255,255,255


cv2.imshow('CHECKER BOARD',img)
cv2.waitKey(0)
cv2.destroyAllWindows()
```

#OUTPUT:



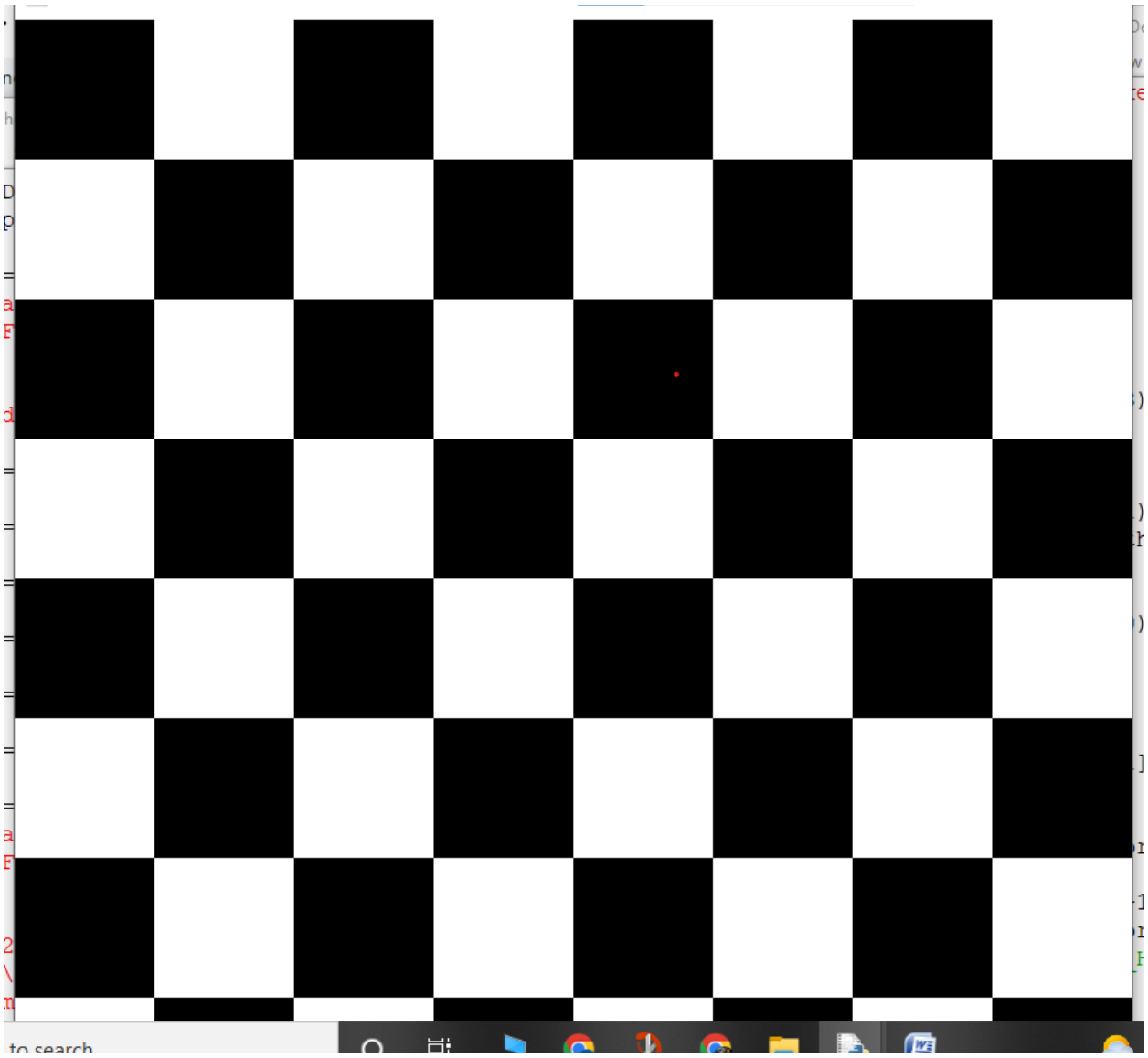
#MINIPROJECT 2-->8x8 Checker board using numpy and opencv

#Using for loop

```
import numpy as np
import cv2

width=7
height=7
pixels=100

row=(width+1)*pixels
col=(height+1)*pixels
image=np.zeros((col,row,3),dtype=np.uint8)
image.fill(255)
y0=0
fill_color=0
for j in range(0,height+1):
    for i in range(0,width+1):
        x0=i*pixels
        y0=j*pixels
        rect_start=(x0,y0)
```

```
        x1=x0+pixels
        y1=y0+pixels
        rect_end=(x1,y1)
        image[y0:y1,x0:x1]=fill_color
        if width%2:
            if i !=width:
                fill_color=(0 if (fill_color==255)else 255)
        else:
            if i !=width+1:
                fill_color=(0 if (fill_color==255)else 255)
cv2.imwrite("%d_Width_%d_Height.jpeg"%(width,height),image)
cv2.imshow("hi",image)

cv2.waitKey()
```

#OUTPUT:



(The output contains total 8x8 checker board but the screenshot is not clear with the last row, you can count the number of checkerboard rows and columns)