CSE47201 Computer Vision Programming Assignment 1

Problem 1

Mount google drive

In [1]:

```python
from google.colab import drive
drive.mount('/content/drive')
```

Mounted at /content/drive

In [2]:

```python
ls
```

drive/ sample_data/

In [3]:

```python
cd drive/MyDrive/
```

/content/drive/MyDrive

In [4]:

```python
import cv2
import numpy as np
from google.colab.patches import cv2_imshow
```

In [5]:

```python
cd "CSE472: Computer Vision"/"Assignment 1"
```

/content/drive/MyDrive/CSE472: Computer Vision/Assignment 1

Visualizing images

In [6]:

```python
# The order of digits in the images folder
digits = [7, 4, 3, 8, 9]
```

In [7]:

```python
# Function to visualize the imamges
# img_id is the id of images, ranging from 1 to 5, coordinate is the position of the digit
def visualize_image(img_id, coordinate):
    print(f"image{img_id}:")
    # Read the image
    img = cv2.imread(f"PA1_problem1_images/image{img_id}.png", cv2.IMREAD_UNCHANGED)
    # Only consider the red channel
    img = img[:, :, 2]
    # Everything above 24 is convert to 255 (maximum possible value)
    img[img > 24] = 255
    img = img.astype(np.uint8)
    # Circle the position
    cv2.circle(img, (coordinate[0], coordinate[1]), 50, (255, 255, 255))
    # Showing the newly visualized image
    cv2_imshow(img)
    # Comment of what the digit is
```

```
    print(f"The digit is {digits[img_id - 1]}")
```

In [8]:

```
visualize_image(1, (230, 290))
```
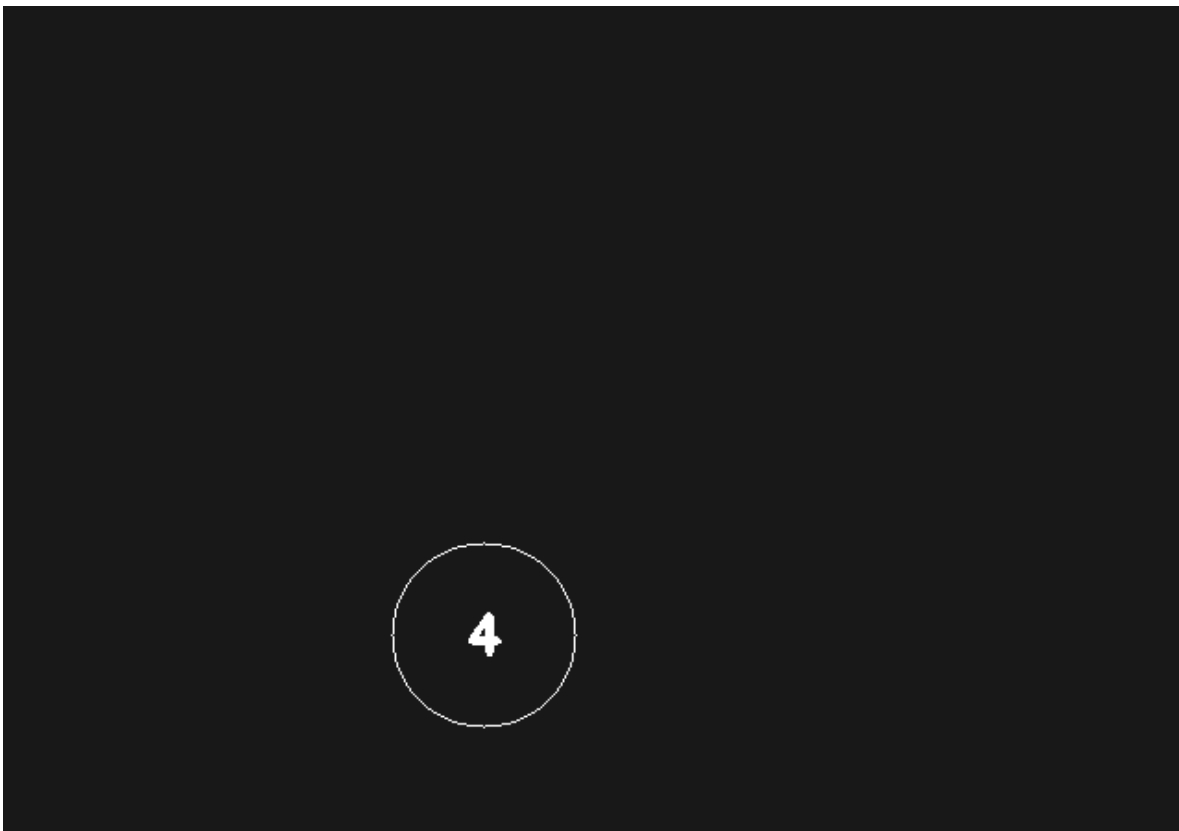
image1:
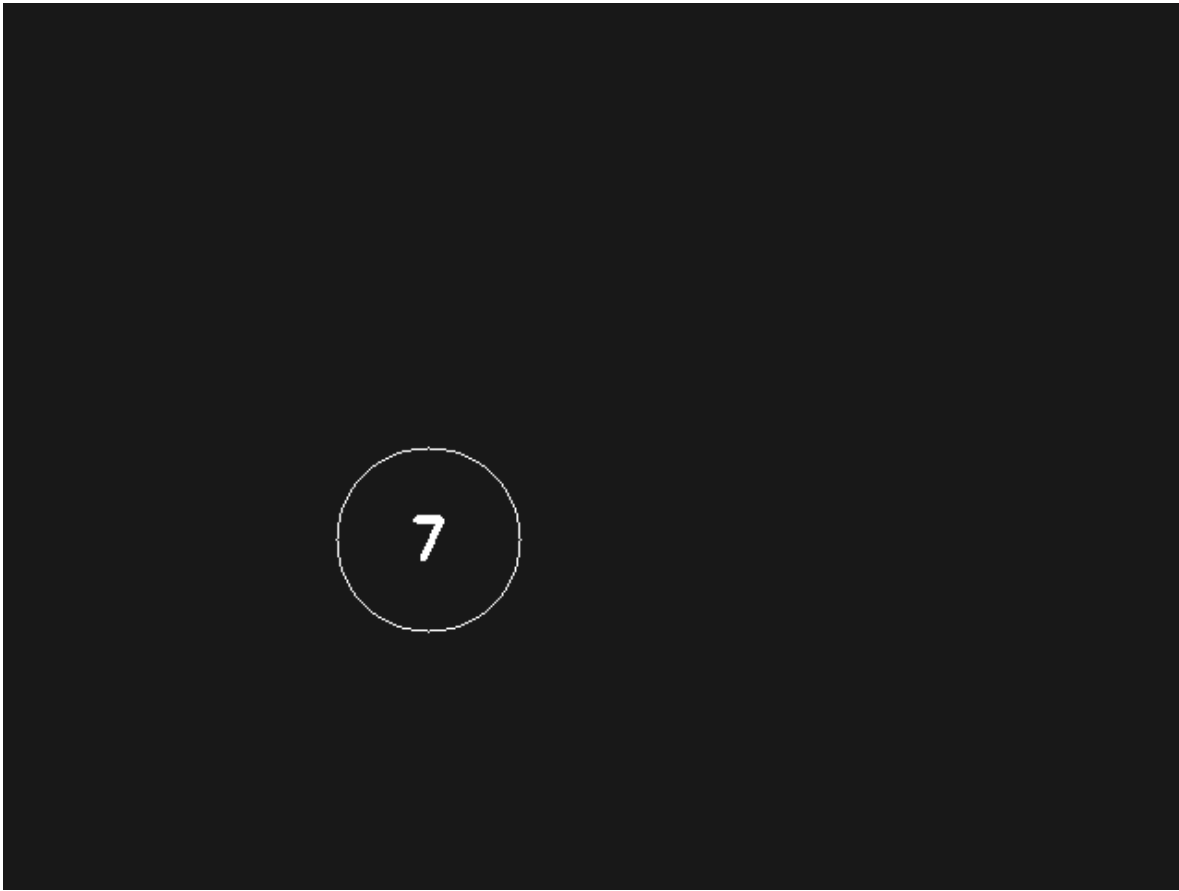
The digit is 7

In [9]:

```
visualize_image(2, (260, 340))
```

image2:

The digit is 4

```
visualize_image(3, (360, 240))
```

image3:

The digit is 3

```
visualize_image(4,  (360, 140))
```

image4:

The digit is 8
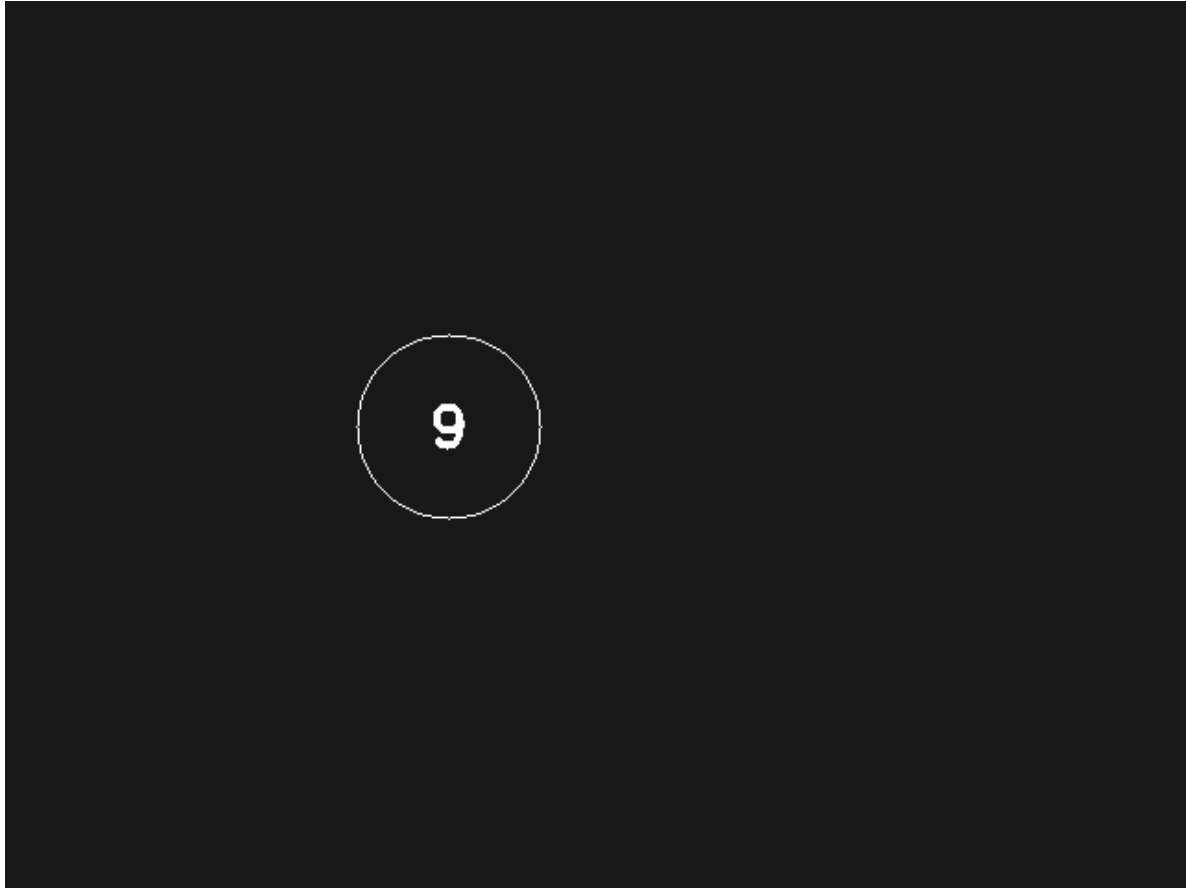
```
visualize_image(5,  (240, 230))
```

image5:

The digit is 9