Roll No: 04

Name: Badhe Rohan Vikas

Assignment No: 9

Assignment Name : Write a python program for use of Binary search algorithm to search an element.(Using recursion)

------------------------------------------------------------------------------------------------------------------------------------------

def binary\_search(arr, low, high, ele):

    if high >= low:

        mid = (high + low) // 2

        if arr[mid] == x:

            return mid+1

        elif arr[mid] > x:

            return binary\_search(arr, low, mid - 1, x)

        else:

            return binary\_search(arr, mid + 1, high, x)

    else:

        return -1

arr = [2, 3, 4, 10, 40]

x = 10

result = binary\_search(arr, 0, len(arr) - 1, x)

if result != -1:

    print("Element is present at Position", str(result))

else:

    print("Element is not present in array")

**Output :**

Element is present at Position 4