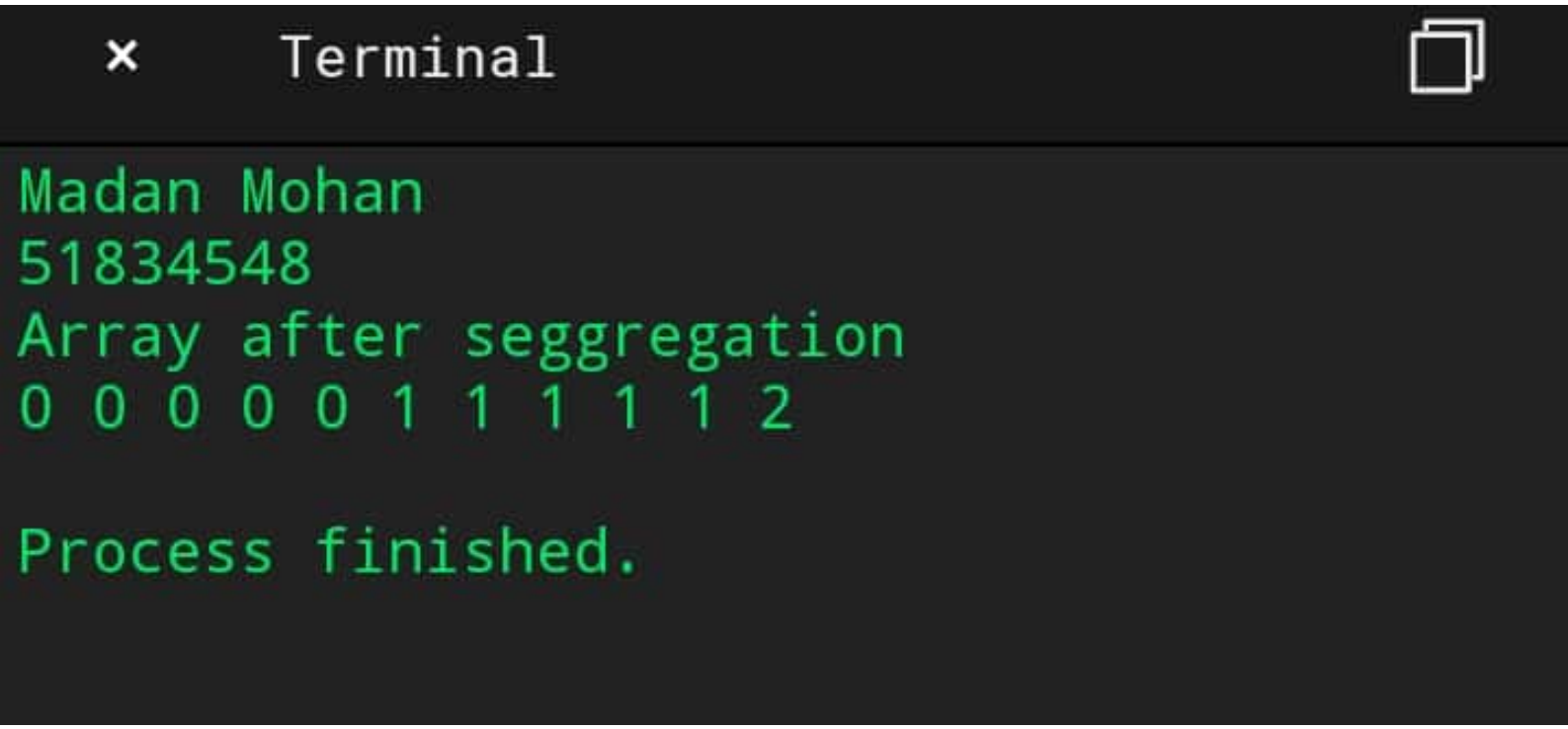
```java
import java.io.*;
class countzot {
static void sort012(int a[], int arr_size)
    {
        int lo = 0;
        int hi = arr_size - 1;
        int mid = 0, temp = 0;
        while (mid <= hi) {
            switch (a[mid]) {
            case 0: {
                temp = a[lo];
                a[lo] = a[mid];
                a[mid] = temp;
                lo++;
                mid++;
                break;
            }
            case 1:
                mid++;
                break;
            case 2: {
                temp = a[mid];
                a[mid] = a[hi];
                a[hi] = temp;
                hi--;
                break;
            }
            }
        }
    }

```

```
31
32 static void printArray(int arr[], int arr_size)
33     {
34         int i;
35         for (i = 0; i < arr_size; i++)
36             System.out.print(arr[i] + " ");
37         System.out.println("");
38     }
39 public static void main(String[] args)
40     {
41       System.out.println("Madan Mohan");
42       System.out.println("51834548");
43 int arr[] = { 0, 1, 1, 0, 1, 2, 1, 0, 0, 0, 1 };
44         int arr_size = arr.length;
45         sort012(arr, arr_size);
46 System.out.println("Array after seggregation ");
47         printArray(arr, arr_size);
48     }
49 }
```



```java
class GFG
{
static int replaceDigit(int x, int d1,
                int d2)
{
  int result = 0, multiply = 1;

  while (x % 10 > 0)
  {
    int remainder = x % 10;
if (remainder == d1)
      result = result + d2 * multiply;

    else
      result = result + remainder * multiply;
       multiply *= 10;
    x = x / 10;
  }
  return result;
}
public static void main(String[] args)
{
  System.out.println("Madan Mohan");
  System.out.println("51834548");
  int x = 645, d1 = 6, d2 = 5;
  System.out.println(replaceDigit(x, d1, d2));
}
}
```

Terminal

```
Madan Mohan
51834548
545

Process finished.
```

```java
class pattern
{
public static void main(String ar[])
{
  System.out.println ("Madan Mohan");
  System.out.println("51834548");
int i, j, k = 1;
System.out.println("Pattern");
for(i=1;i<=5;i++)
{
for(j=1;j<=i;j++)
{
if ( j == 1 || j == i )
k = 1;
else
k = 0;
System.out.print(k+" ");
}
System.out.print("\n");
}
}
}
```

```java
class BinarySearchExample{
 public static void binarySearch(int arr[], int first, int last, int key){
   int mid = (first + last)/2;
   while( first <= last ){
      if ( arr[mid] < key ){
        first = mid + 1;
      }else if ( arr[mid] == key ){
        System.out.println("Element is found at index: " + mid);
        break;
      }else{
         last = mid - 1;
      }
     mid = (first + last)/2;
  }
  if ( first > last ){
```

```
16        System.out.println("Element is not found!");
17      }
18    }
19    public static void main(String args[]){
20      System.out.println("Madan Mohan");
21      System.out.println("51834548");
22           int arr[] = {10,20,30,40,50};
23           int key = 30;
24           int last=arr.length-1;
25           binarySearch(arr,0,last,key);
26    }
27  }
```