

```

1  import java.io.*;
2  class countzot {
3  static void sort012(int a[], int arr_size)
4  {
5      int lo = 0;
6      int hi = arr_size - 1;
7      int mid = 0, temp = 0;
8      while (mid <= hi) {
9          switch (a[mid]) {
10             case 0: {
11                 temp = a[lo];
12                 a[lo] = a[mid];
13                 a[mid] = temp;
14                 lo++;
15                 mid++;
16                 break;
17             }
18             case 1:
19                 mid++;
20                 break;
21             case 2: {
22                 temp = a[mid];
23                 a[mid] = a[hi];
24                 a[hi] = temp;
25                 hi--;
26                 break;
27             }
28         }
29     }
30 }
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("Suhail");
42     System.out.println("51834539");
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 }

```

48 }
49 }

```
Suhail  
51834539  
Array after seggregation  
0 0 0 0 0 1 1 1 1 1 2  
  
Process finished.
```

```

1  class GFG
2  {
3  static int replaceDigit(int x, int d1,
4                          int d2)
5  {
6      int result = 0, multiply = 1;
7
8      while (x % 10 > 0)
9      {
10         int remainder = x % 10;
11         if (remainder == d1)
12             result = result + d2 * multiply;
13
14         else
15             result = result + remainder * multiply;
16             multiply *= 10;
17         x = x / 10;
18     }
19     return result;
20 }
21 public static void main(String[] args)
22 {
23     System.out.println("Suhail");
24     System.out.println("51834539");
25     int x = 645, d1 = 6, d2 = 5;
26     System.out.println(replaceDigit(x, d1, d2));
27 }
28 }
29
30

```

× Terminal



```

Suhail
51834539
545

```

Process finished.

```
1  class pattern
2  {
3  public static void main(String ar[])
4  {
5      System.out.println("Suhail");
6      System.out.println("51834539");
7      int i, j, k = 1;
8      System.out.println("Pattern");
9      for(i=1;i<=5;i++)
10     {
11         for(j=1;j<=i;j++)
12         {
13             if ( j == 1 || j == i )
14                 k = 1;
15             else
16                 k = 0;
17             System.out.print(k+" ");
18         }
19         System.out.print("\n");
20     }
21 }
22 }
```

× Terminal



```
Suhail
51834539
Pattern
1
1 1
1 0 1
1 0 0 1
1 0 0 0 1
```

```
Process finished.
```

```

1 class BinarySearchExample{
2     public static void binarySearch(int arr[], int first, int last, int key){
3         int mid = (first + last)/2;
4         while( first <= last ){
5             if ( arr[mid] < key ){
6                 first = mid + 1;
7             }else if ( arr[mid] == key ){
8                 System.out.println("Element is found at index: " + mid);
9                 break;
10            }else{
11                last = mid - 1;
12            }
13            mid = (first + last)/2;
14        }
15        if ( first > last ){

```

```
16     System.out.println("Element is not found!");
17 }
18 }
19 public static void main(String args[]){
20     System.out.println("Suhail");
21     System.out.println("51834539");
22     int arr[] = {1,2,3,4,5};
23     int key = 4;
24     int last=arr.length-1;
25     binarySearch(arr,0,last,key);
26 }
27 }
```


× Terminal

```
Suhail  
51834539  
Element is found at index: 3  
  
Process finished.
```