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Q1) SOLUTION:

```
public class Main
{
   public void targetcheck(int[] arr,int x){
      int left=0,right=0;
      left=right+1;
      int n=arr.length-1;
      while(left!=right){
         if(arr[left]+arr[right]==x){
            System.out.println("["+left+","+right+"]");
            break;
         }
         else if(arr[left]+arr[right]>x){
            right=(right-1+n)%n;
         }
         else{
            left=(left+1)%n;
         }
      }
   }
          public static void main(String[] args) {
             int arr[]={2,7,11,15};
             int target=9;
             Main obj=new Main();
             obj.targetcheck(arr,target);

          }
}
```

Q2) SOLUTION:

```
import java.util.Arrays;
public class Main
{
   public void swapper(int []arr,int val){
      int l=0,c=0,r=arr.length-1;
      while(l!=r){
         if (arr[r]==val){
            r--;
            c++;
         }
         else if(arr[l]!=val){
            l++;
         }
```

```
            else{
                int t=arr[l];
                arr[l]=arr[r];
                arr[r]=t;
                l++;
                r--;
                c++;
            }
        }
        System.out.print(c+ ", ");
        System.out.print("[");
        for(int i=0;i<arr.length;i++){
            if (arr[i]==val){
                System.out.print("_"+",");
            }
            else{
                System.out.print(arr[i]+",");
            }
        }
        System.out.print("]");
    }
            public static void main(String[] args) {
                int arr[]={3,2,2,3};
                int target=3;
                Main obj=new Main();
                obj.swapper(arr,target);


            }
}
```

Q3) SOLUTION:

```
import java.util.Arrays;
public class Main
{
    public int ckeckpresent(int []arr,int val){
        int l=0,r=arr.length-1,c=0;
        while(l!=r){
            if (arr[r]==val){
                return r;

            }
            else if(arr[l]==val){
                return l;
            }
            else{
                l++;
                r--;
            }
        }
        for(int i=0;i<=r;i++)
```

```
        {
            if(arr[i]<val && arr[i+1]>val)
            {
              c=i+1;
            }
        }
        return c;
    }
          public static void main(String[] args) {
             int arr[]={1,3,5,6,7,5,3,2,9};
             int target=4;
             Main obj=new Main();
             int n=obj.ckeckpresent(arr,target);
             System.out.print(n);


          }
}
```

Q4) SOLUTION:

```
import java.util.Arrays;
public class Main
{
    public void addtoarray(int []arr){
        int r=arr.length-1;
        while(r>=0){
            if(arr[r]==9){
                arr[r]=0;
                r--;
            }
            else{
                arr[r]+=1;
                System.out.print(Arrays.toString(arr));
                break;
            }
        }
    }
          public static void main(String[] args) {
             int arr[]={1,4,0,1};
             Main obj=new Main();
             obj.addtoarray(arr);


          }
}
```

Q5) SOLUTION:

```
import java.util.Arrays;
public class Main
{
   public void addtoarray(int []arr,int [] arr2,int m,int n)
   {
      for(int i=0;i<m+n;i++){
         if(i>(m-1)){
            arr[i]=arr2[i-m];
         }
      }
      Arrays.sort(arr);
      System.out.print(Arrays.toString(arr));
   }
         public static void main(String[] args) {
            int arr[]={1,2,3,0,0,0};
            int arr2[]={2,5,6};
            int m=3,n=3;

            Main obj=new Main();
            obj.addtoarray(arr,arr2,m,n);
         }
}
```

Q6) SOLUTION:

```
import java.util.Arrays;
import java.util.*;
public class Main
{
   int zero=0;
   public boolean correctzeros(int []arr)
   {
      Map <Integer,Integer> mymap=new HashMap<Integer,Integer>();
      for(int num : arr){
         if (mymap.containsKey(num)){
            return true;
         }
         else{
            mymap.put(num,1);
         }
      }
      return false;
```

```
    }
        public static void main(String[] args) {
            int arr[]={1,2,3,4};

            Main obj=new Main();
            boolean val=obj.correctzeros(arr);
            System.out.print(val);
        }
}
```

Q7) SOLUTION:

```
import java.util.Arrays;
public class Main
{
   int zero=0;
   public void correctzeros(int []arr)
   {
      for(int i=0;i<arr.length;i++){
         if(arr[i]!=0){
            arr[zero]=arr[i];
            zero++;
         }
      }
      while(zero<arr.length){
         arr[zero]=0;
         zero++;
      }
      System.out.print(Arrays.toString(arr));
   }
        public static void main(String[] args) {
            int arr[]={1,0,2,0,3,0};

            Main obj=new Main();
            obj.correctzeros(arr);


        }
}
```

Q8) SOLUTION:

```
import java.util.Arrays;
import java.util.*;
public class Main
{

   public void correctzeros(int []arr)
   {
      int index = 0;
```

```
        int index2 = 0;
        Map<Integer, Integer> mymap = new HashMap<>();

        for (int num : arr) {
            if (mymap.containsKey(num)) {
                mymap.put(num, mymap.get(num) + 1);
                if (mymap.get(num) > 1) {
                index2 = num;
            }
            } else {
                mymap.put(num, 1);
            }
        }

        for (int i = 0; i < arr.length; i++) {
            if (!mymap.containsKey(i + 1)) {
                index = i + 1;
                break;
            }
        }

        System.out.println("[" + index2 + ", " + index + "]");
    }
            public static void main(String[] args) {
                int arr[]={1,2,3,4,4};

                Main obj=new Main();
        obj.correctzeros(arr);

            }
}
```