Assignment No:-20

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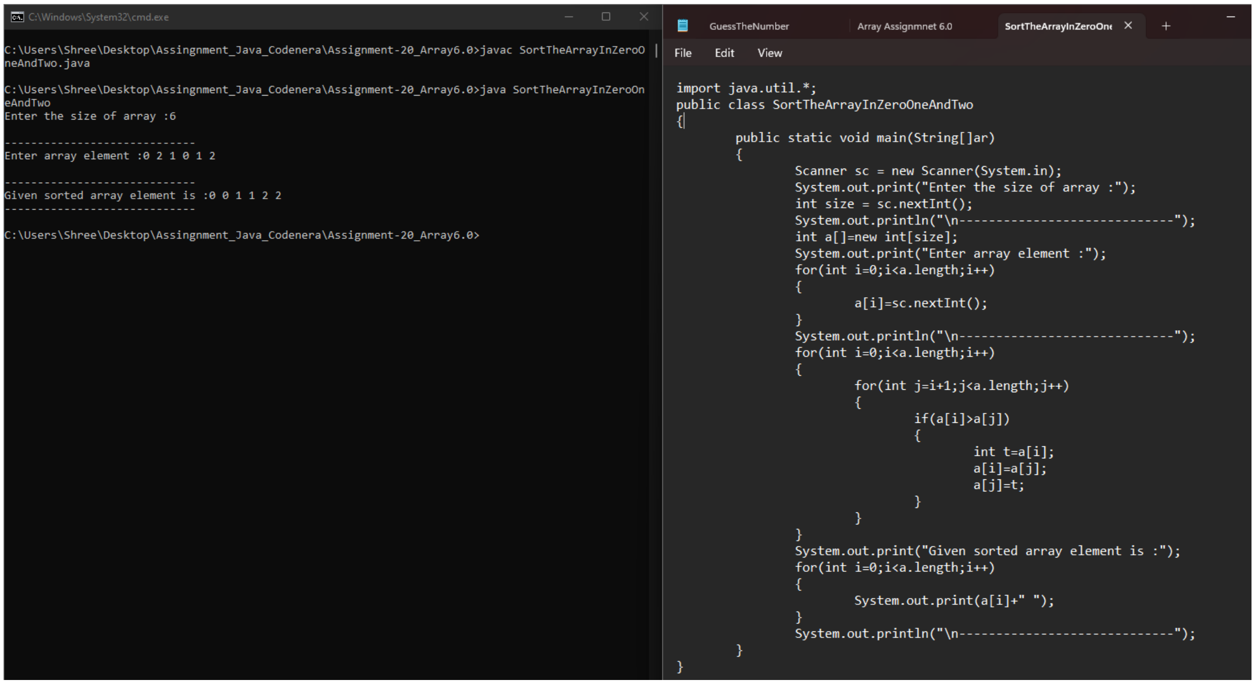
Batch: - Delta - DCA (Java) 2024   Date:-30/5/2024

Q4.Given an array A[] consisting of only 0s, 1s, and 2s. The task is to write a function that sorts the given array.

The functions should put all 0s first, then all 1s and all 2s in last.



```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>javac SortTheArrayInZeroO
neAndTwo.java

C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>java SortTheArrayInZeroOn
eAndTwo
Enter the size of array :6

----------------------------
Enter array element :0 2 1 0 1 2

----------------------------
Given sorted array element is :0 0 1 1 2 2
----------------------------

C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>
```

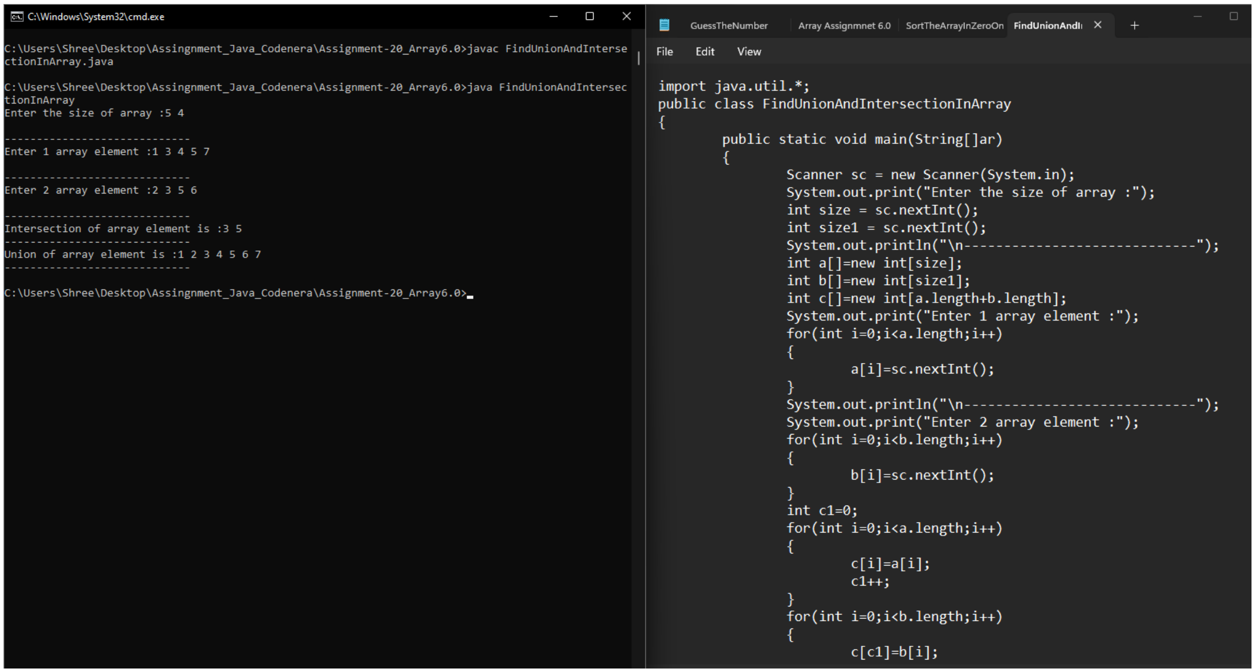
```java
import java.util.*;
public class SortTheArrayInZeroOneAndTwo
{
	public static void main(String[]ar)
	{
		Scanner sc = new Scanner(System.in);
		System.out.print("Enter the size of array :");
		int size = sc.nextInt();
		System.out.println("\n----------------------------");
		int a[]=new int[size];
		System.out.print("Enter array element :");
		for(int i=0;i<a.length;i++)
		{
			a[i]=sc.nextInt();
		}
		System.out.println("\n----------------------------");
		for(int i=0;i<a.length;i++)
		{
			for(int j=i+1;j<a.length;j++)
			{
				if(a[i]>a[j])
				{
					int t=a[i];
					a[i]=a[j];
					a[j]=t;
				}
			}
		}
		System.out.print("Given sorted array element is :");
		for(int i=0;i<a.length;i++)
		{
			System.out.print(a[i]+" ");
		}
		System.out.println("\n----------------------------");
	}
}
```

Q5.Given two sorted arrays, find their union and intersection.

Example:

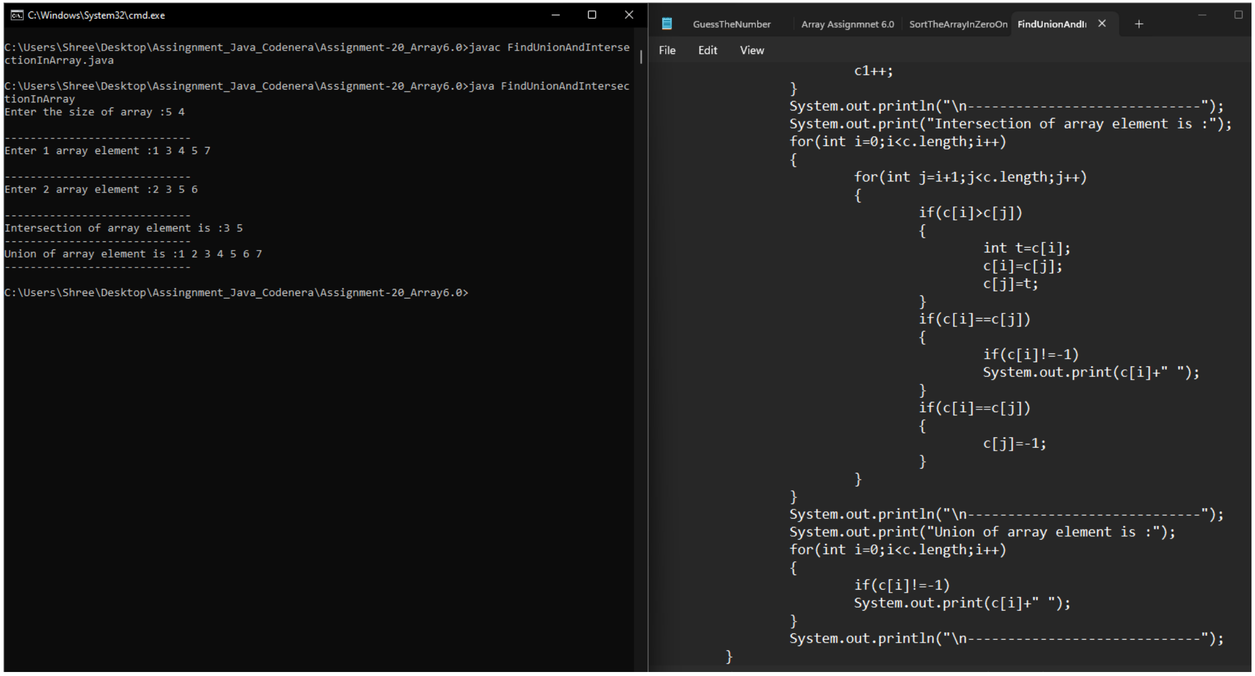
Input: arr1[] = {1, 3, 4, 5, 7}, arr2[] = {2, 3, 5, 6}

Output: Union: {1, 2, 3, 4, 5, 6, 7}, Intersection: {3, 5}



```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>javac FindUnionAndInterse
ctionInArray.java

C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>java FindUnionAndIntersec
tionInArray
Enter the size of array :5 4

----------------------------
Enter 1 array element :1 3 4 5 7

----------------------------
Enter 2 array element :2 3 5 6

----------------------------
Intersection of array element is :3 5
----------------------------
Union of array element is :1 2 3 4 5 6 7
----------------------------

C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>
```

```
import java.util.*;
public class FindUnionAndIntersectionInArray
{
        public static void main(String[]ar)
        {
                Scanner sc = new Scanner(System.in);
                System.out.print("Enter the size of array :");
                int size = sc.nextInt();
                int size1 = sc.nextInt();
                System.out.println("\n----------------------------");
                int a[]=new int[size];
                int b[]=new int[size1];
                int c[]=new int[a.length+b.length];
                System.out.print("Enter 1 array element :");
                for(int i=0;i<a.length;i++)
                {
                        a[i]=sc.nextInt();
                }
                System.out.println("\n----------------------------");
                System.out.print("Enter 2 array element :");
                for(int i=0;i<b.length;i++)
                {
                        b[i]=sc.nextInt();
                }
                int c1=0;
                for(int i=0;i<a.length;i++)
                {
                        c[i]=a[i];
                        c1++;
                }
                for(int i=0;i<b.length;i++)
                {
                        c[c1]=b[i];
```



```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>javac FindUnionAndInterse
ctionInArray.java

C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>java FindUnionAndIntersec
tionInArray
Enter the size of array :5 4

----------------------------
Enter 1 array element :1 3 4 5 7

----------------------------
Enter 2 array element :2 3 5 6

----------------------------
Intersection of array element is :3 5
----------------------------
Union of array element is :1 2 3 4 5 6 7
----------------------------

C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>
```

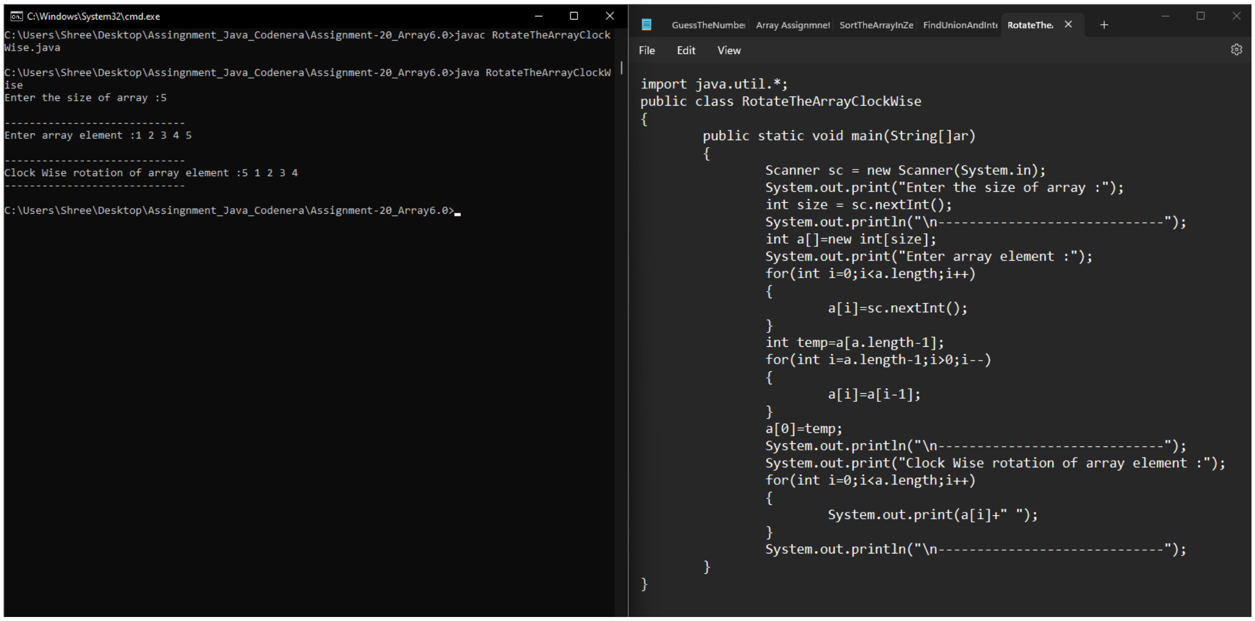
```
                        c1++;
                }
                System.out.println("\n----------------------------");
                System.out.print("Intersection of array element is :");
                for(int i=0;i<c.length;i++)
                {
                        for(int j=i+1;j<c.length;j++)
                        {
                                if(c[i]>c[j])
                                {
                                        int t=c[i];
                                        c[i]=c[j];
                                        c[j]=t;
                                }
                                if(c[i]==c[j])
                                {
                                        if(c[i]!=-1)
                                        System.out.print(c[i]+" ");
                                }
                                if(c[i]==c[j])
                                {
                                        c[j]=-1;
                                }
                        }
                }
                System.out.println("\n----------------------------");
                System.out.print("Union of array element is :");
                for(int i=0;i<c.length;i++)
                {
                        if(c[i]!=-1)
                        System.out.print(c[i]+" ");
                }
                System.out.println("\n----------------------------");
        }
```

Q6.Given an array, cyclically rotate the array clockwise by one.

Examples:

Input: arr[] = {1, 2, 3, 4, 5}

Output: arr[] = {5, 1, 2, 3, 4}



```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>javac RotateTheArrayClock
Wise.java

C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>java RotateTheArrayClockW
ise
Enter the size of array :5

-----------------------------
Enter array element :1 2 3 4 5

-----------------------------
Clock Wise rotation of array element :5 1 2 3 4
-----------------------------

C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>
```

```java
import java.util.*;
public class RotateTheArrayClockWise
{
        public static void main(String[]ar)
        {
                Scanner sc = new Scanner(System.in);
                System.out.print("Enter the size of array :");
                int size = sc.nextInt();
                System.out.println("\n-----------------------------");
                int a[]=new int[size];
                System.out.print("Enter array element :");
                for(int i=0;i<a.length;i++)
                {
                        a[i]=sc.nextInt();
                }
                int temp=a[a.length-1];
                for(int i=a.length-1;i>0;i--)
                {
                        a[i]=a[i-1];
                }
                a[0]=temp;
                System.out.println("\n-----------------------------");
                System.out.print("Clock Wise rotation of array element :");
                for(int i=0;i<a.length;i++)
                {
                        System.out.print(a[i]+" ");
                }
                System.out.println("\n-----------------------------");
        }
}
```

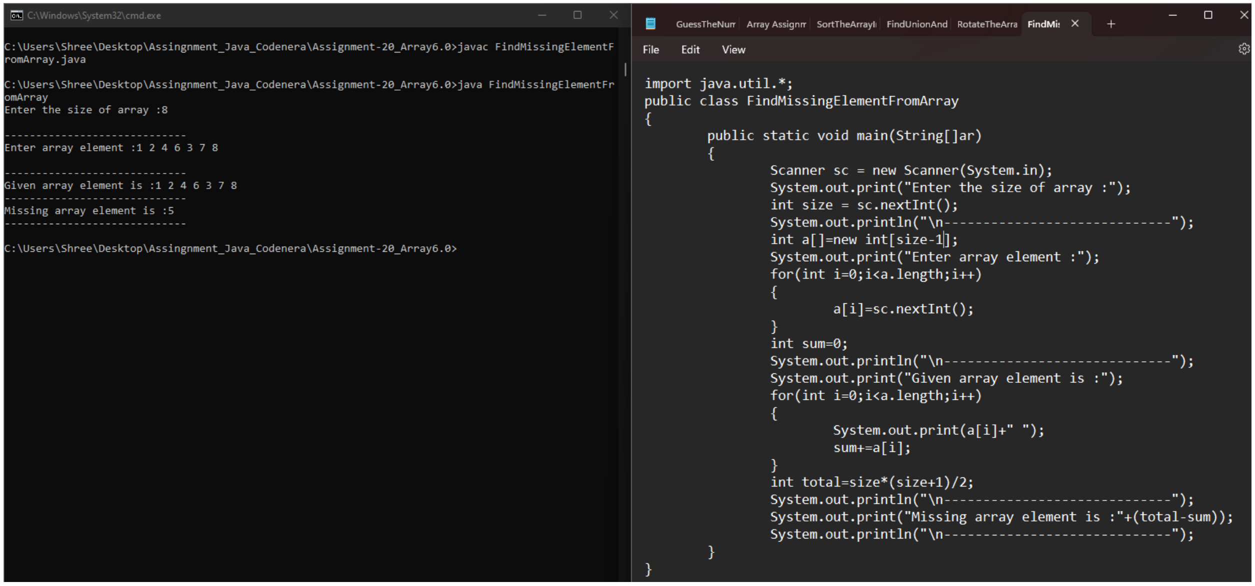
Q7.Given an array arr[] of size N-1 with integers in the range of [1, N], the task is to find the missing number from the first N integers.

Note: There are no duplicates in the list.

Examples:

Input: arr[] = {1, 2, 4, 6, 3, 7, 8}, N = 8

Output: 5



```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>javac FindMissingElementF
romArray.java

C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>java FindMissingElementFr
omArray
Enter the size of array :8

-----------------------------
Enter array element :1 2 4 6 3 7 8

-----------------------------
Given array element is :1 2 4 6 3 7 8
-----------------------------
Missing array element is :5
-----------------------------

C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>
```

```java
import java.util.*;
public class FindMissingElementFromArray
{
        public static void main(String[]ar)
        {
                Scanner sc = new Scanner(System.in);
                System.out.print("Enter the size of array :");
                int size = sc.nextInt();
                System.out.println("\n-----------------------------");
                int a[]=new int[size-1];
                System.out.print("Enter array element :");
                for(int i=0;i<a.length;i++)
                {
                        a[i]=sc.nextInt();
                }
                int sum=0;
                System.out.println("\n-----------------------------");
                System.out.print("Given array element is :");
                for(int i=0;i<a.length;i++)
                {
                        System.out.print(a[i]+" ");
                        sum+=a[i];
                }
                int total=size*(size+1)/2;
                System.out.println("\n-----------------------------");
                System.out.print("Missing array element is :"+(total-sum));
                System.out.println("\n-----------------------------");
        }
}
```

Q8.Given three arrays sorted in non-decreasing order, print all common elements in these arrays.

Examples:

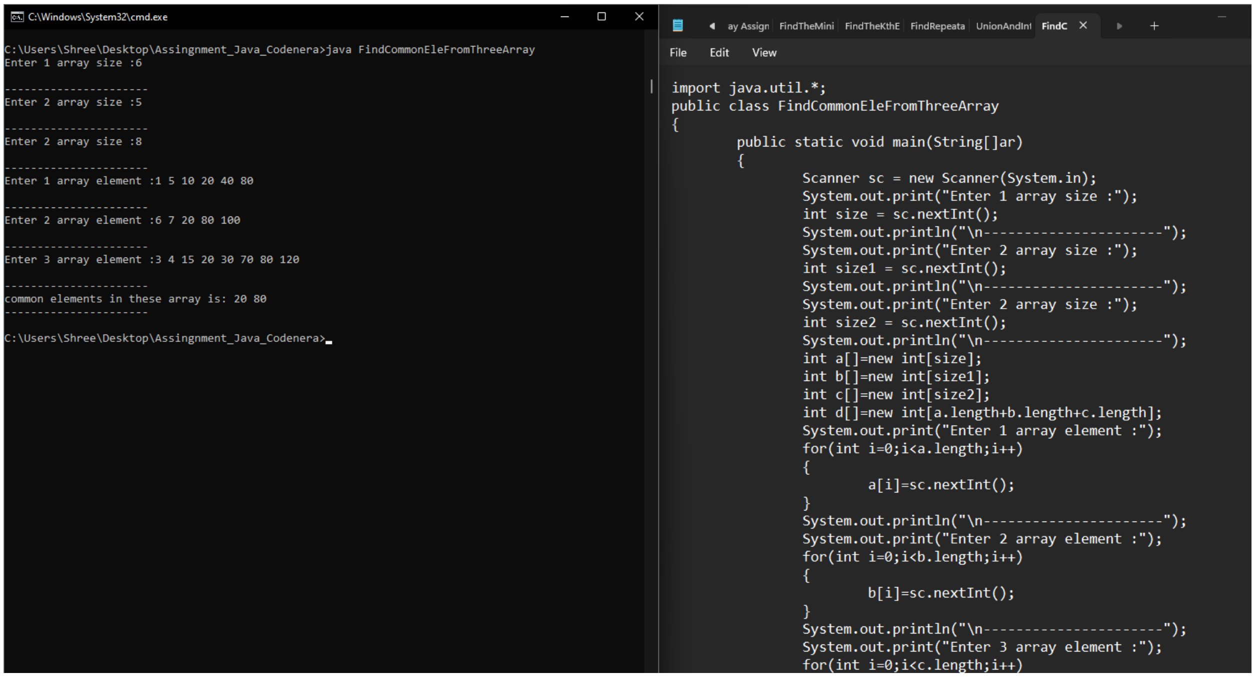
Input:

ar1[] = {1, 5, 10, 20, 40, 80}

ar2[] = {6, 7, 20, 80, 100}

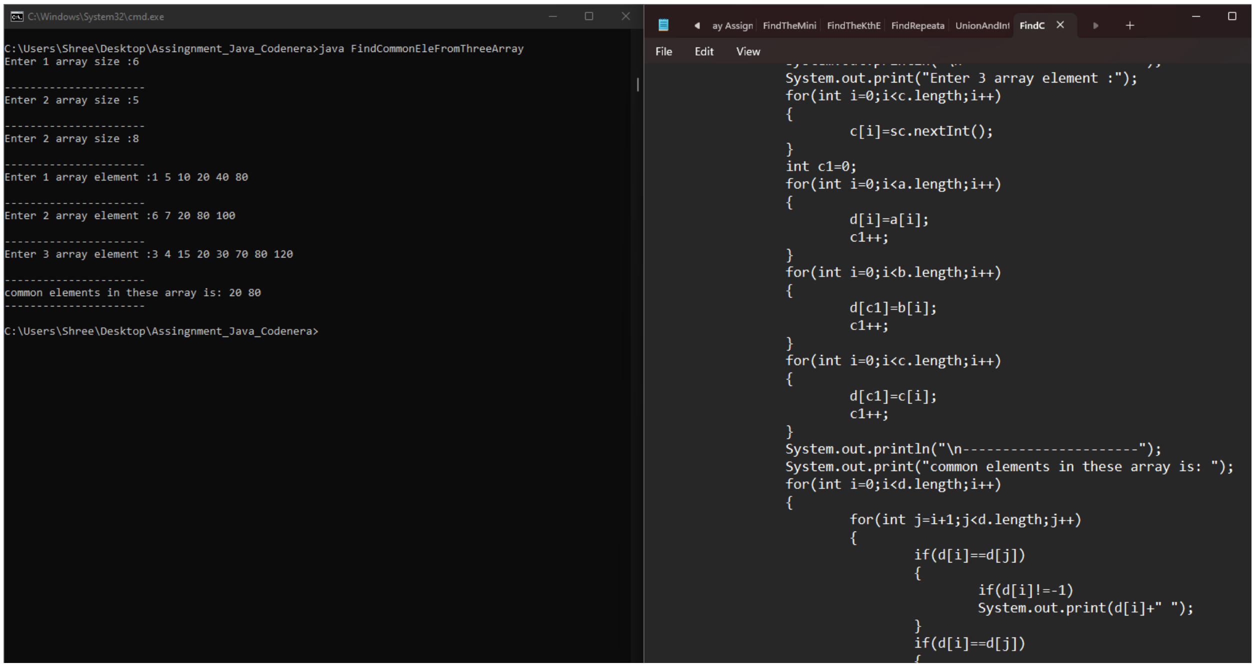
ar3[] = {3, 4, 15, 20, 30, 70, 80, 120}

Output: 20, 80



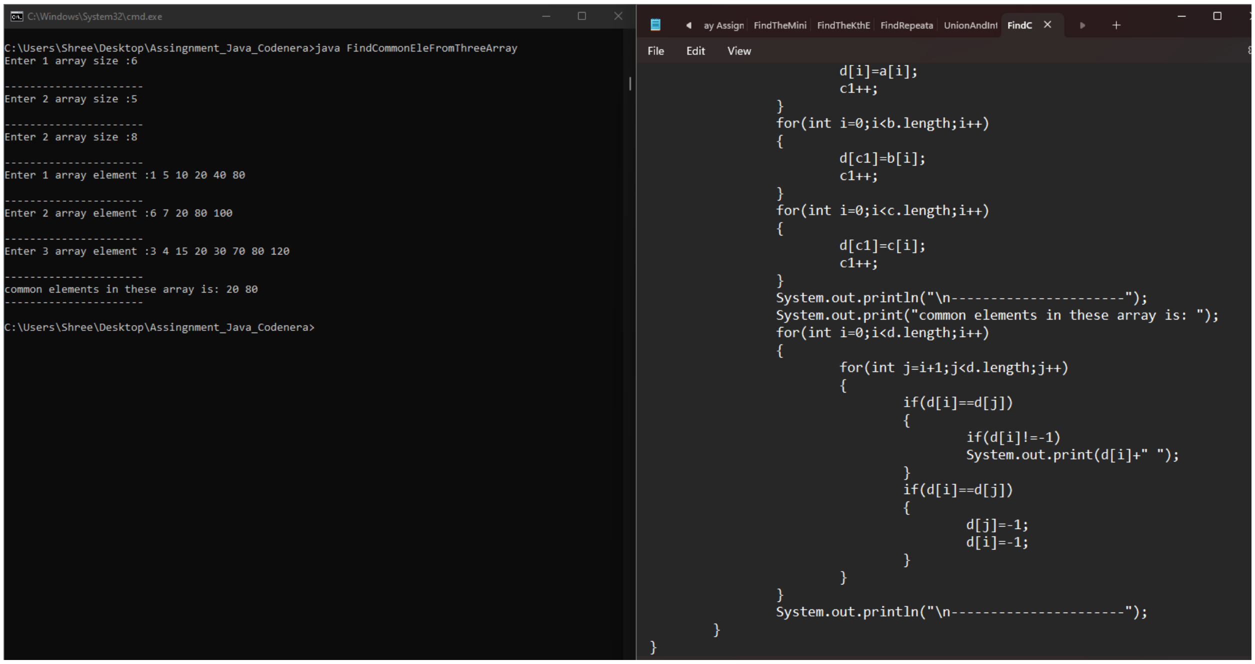
```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java FindCommonEleFromThreeArray
Enter 1 array size :6

----------------------
Enter 2 array size :5

----------------------
Enter 2 array size :8

----------------------
Enter 1 array element :1 5 10 20 40 80

----------------------
Enter 2 array element :6 7 20 80 100

----------------------
Enter 3 array element :3 4 15 20 30 70 80 120

----------------------
common elements in these array is: 20 80
----------------------

C:\Users\Shree\Desktop\Assingnment_Java_Codenera>
```

```java
import java.util.*;
public class FindCommonEleFromThreeArray
{
        public static void main(String[]ar)
        {
                Scanner sc = new Scanner(System.in);
                System.out.print("Enter 1 array size :");
                int size = sc.nextInt();
                System.out.println("\n----------------------");
                System.out.print("Enter 2 array size :");
                int size1 = sc.nextInt();
                System.out.println("\n----------------------");
                System.out.print("Enter 2 array size :");
                int size2 = sc.nextInt();
                System.out.println("\n----------------------");
                int a[]=new int[size];
                int b[]=new int[size1];
                int c[]=new int[size2];
                int d[]=new int[a.length+b.length+c.length];
                System.out.print("Enter 1 array element :");
                for(int i=0;i<a.length;i++)
                {
                        a[i]=sc.nextInt();
                }
                System.out.println("\n----------------------");
                System.out.print("Enter 2 array element :");
                for(int i=0;i<b.length;i++)
                {
                        b[i]=sc.nextInt();
                }
                System.out.println("\n----------------------");
                System.out.print("Enter 3 array element :");
                for(int i=0;i<c.length;i++)
```



```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java FindCommonEleFromThreeArray
Enter 1 array size :6

---------------------
Enter 2 array size :5

---------------------
Enter 2 array size :8

---------------------
Enter 1 array element :1 5 10 20 40 80

---------------------
Enter 2 array element :6 7 20 80 100

---------------------
Enter 3 array element :3 4 15 20 30 70 80 120

---------------------
common elements in these array is: 20 80
---------------------

C:\Users\Shree\Desktop\Assingnment_Java_Codenera>
```

```
                System.out.print("Enter 3 array element :");
                for(int i=0;i<c.length;i++)
                {
                        c[i]=sc.nextInt();
                }
                int c1=0;
                for(int i=0;i<a.length;i++)
                {
                        d[i]=a[i];
                        c1++;
                }
                for(int i=0;i<b.length;i++)
                {
                        d[c1]=b[i];
                        c1++;
                }
                for(int i=0;i<c.length;i++)
                {
                        d[c1]=c[i];
                        c1++;
                }
                System.out.println("\n---------------------");
                System.out.print("common elements in these array is: ");
                for(int i=0;i<d.length;i++)
                {
                        for(int j=i+1;j<d.length;j++)
                        {
                                if(d[i]==d[j])
                                {
                                        if(d[i]!=-1)
                                        System.out.print(d[i]+" ");
                                }
                                if(d[i]==d[j])
                                {
```



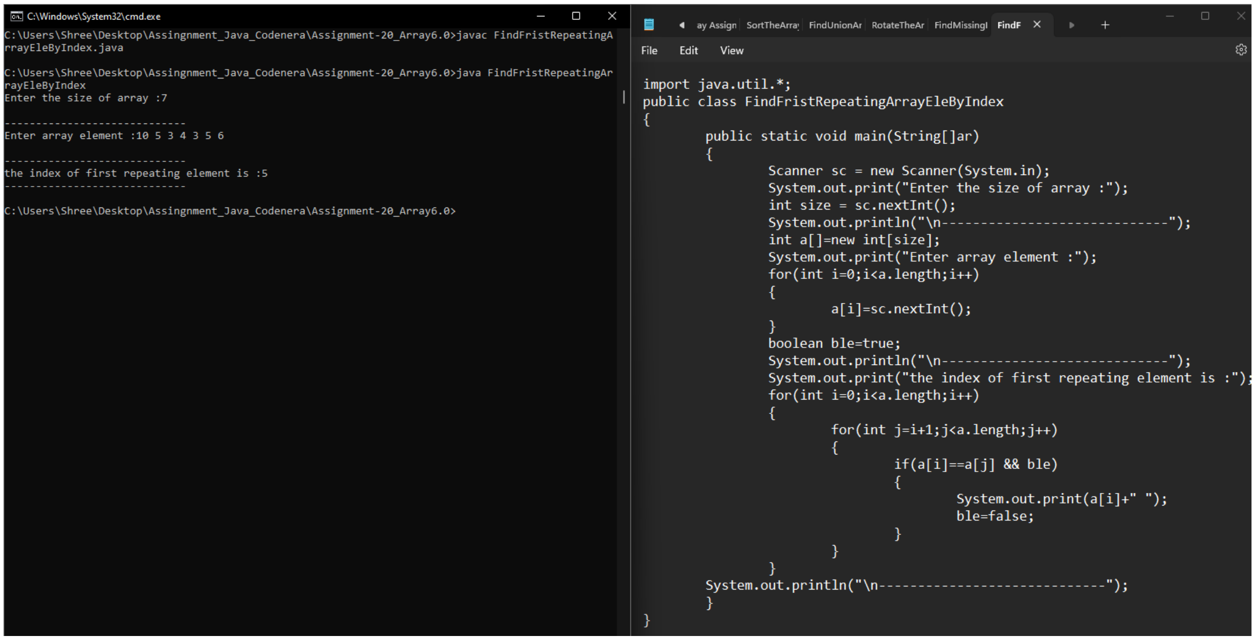
```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java FindCommonEleFromThreeArray
Enter 1 array size :6

---------------------
Enter 2 array size :5

---------------------
Enter 2 array size :8

---------------------
Enter 1 array element :1 5 10 20 40 80

---------------------
Enter 2 array element :6 7 20 80 100

---------------------
Enter 3 array element :3 4 15 20 30 70 80 120

---------------------
common elements in these array is: 20 80
---------------------

C:\Users\Shree\Desktop\Assingnment_Java_Codenera>
```

```
                        d[i]=a[i];
                        c1++;
                }
                for(int i=0;i<b.length;i++)
                {
                        d[c1]=b[i];
                        c1++;
                }
                for(int i=0;i<c.length;i++)
                {
                        d[c1]=c[i];
                        c1++;
                }
                System.out.println("\n---------------------");
                System.out.print("common elements in these array is: ");
                for(int i=0;i<d.length;i++)
                {
                        for(int j=i+1;j<d.length;j++)
                        {
                                if(d[i]==d[j])
                                {
                                        if(d[i]!=-1)
                                        System.out.print(d[i]+" ");
                                }
                                if(d[i]==d[j])
                                {
                                        d[j]=-1;
                                        d[i]=-1;
                                }
                        }
                }
                System.out.println("\n---------------------");
        }
}
```

Q9.Given an array of integers arr[], The task is to find the index of first repeating element in it i.e. the element that occurs more than once and whose index of the first occurrence is the smallest.

Examples: Input: arr[] = {10, 5, 3, 4, 3, 5, 6}

Output: 5



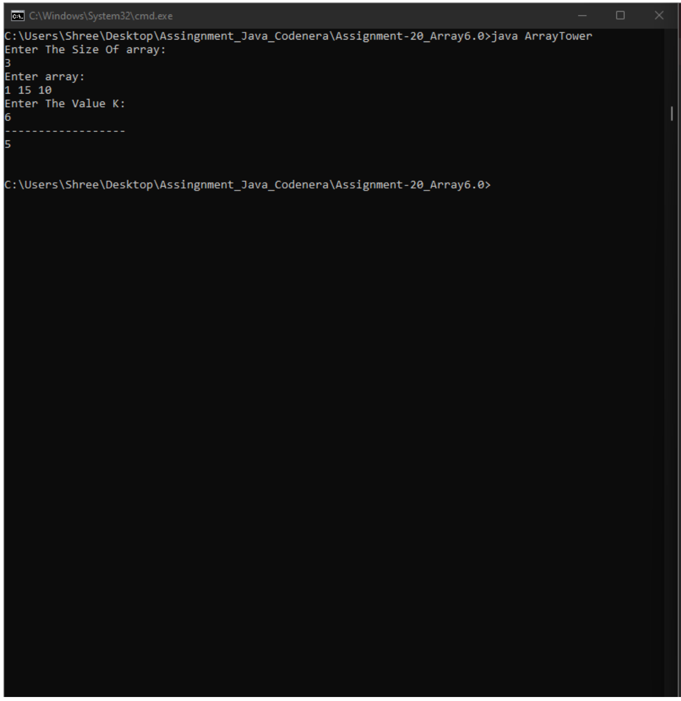
```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>javac FindFristRepeatingA
rrayEleByIndex.java

C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>java FindFristRepeatingAr
rayEleByIndex
Enter the size of array :7

----------------------------
Enter array element :10 5 3 4 3 5 6

----------------------------
the index of first repeating element is :5
----------------------------

C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>
```

```
import java.util.*;
public class FindFristRepeatingArrayEleByIndex
{
        public static void main(String[]ar)
        {
                Scanner sc = new Scanner(System.in);
                System.out.print("Enter the size of array :");
                int size = sc.nextInt();
                System.out.println("\n----------------------------");
                int a[]=new int[size];
                System.out.print("Enter array element :");
                for(int i=0;i<a.length;i++)
                {
                        a[i]=sc.nextInt();
                }
                boolean ble=true;
                System.out.println("\n----------------------------");
                System.out.print("the index of first repeating element is :");
                for(int i=0;i<a.length;i++)
                {
                        for(int j=i+1;j<a.length;j++)
                        {
                                if(a[i]==a[j] && ble)
                                {
                                        System.out.print(a[i]+" ");
                                        ble=false;
                                }
                        }
                }
        System.out.println("\n----------------------------");
        }
}
```

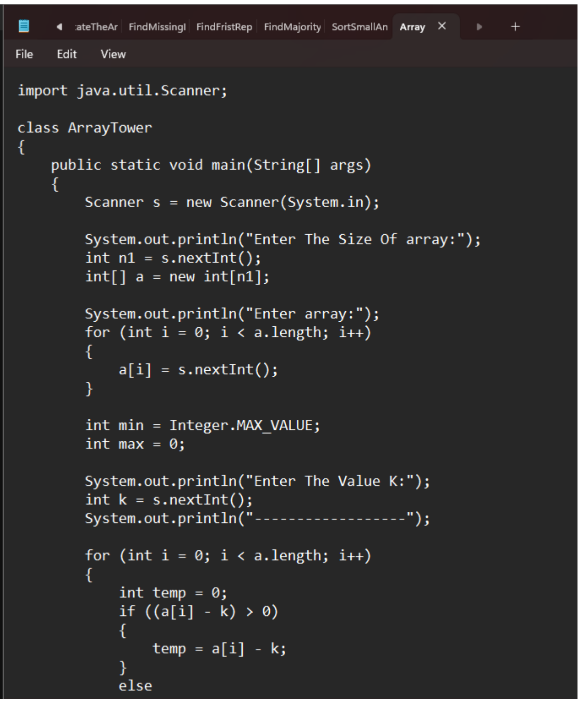
Q10.Given the heights of N towers and a value of K, either increase or decrease the height of every tower by K (only once) where K > 0. After modifications, the task is to minimize the difference between the heights of the longest and the shortest tower and output its difference. Examples: Input: arr[] = {1, 15, 10}, k = 6

Output: Maximum difference is 5.

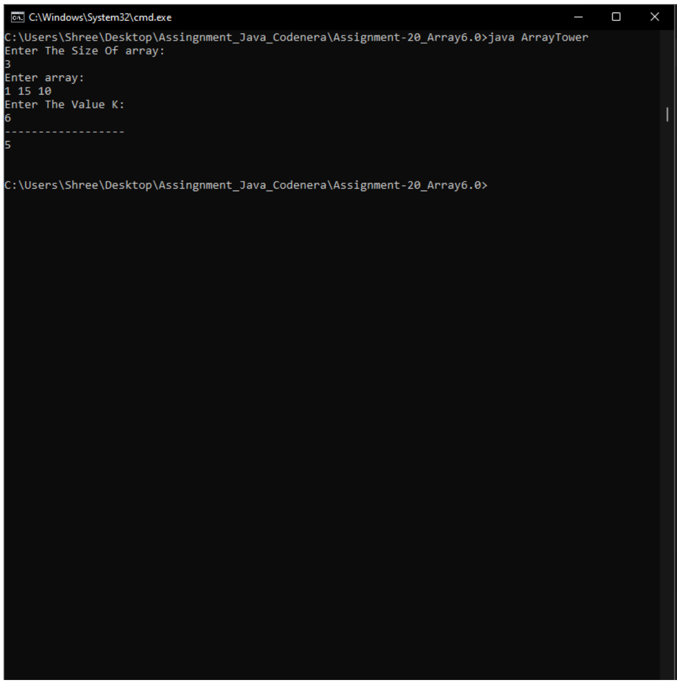
Explanation: Change 1 to 7, 15 to 9 and 10 to 4. Maximum difference is 5 (between 4 and 9). We can't get a lower difference.



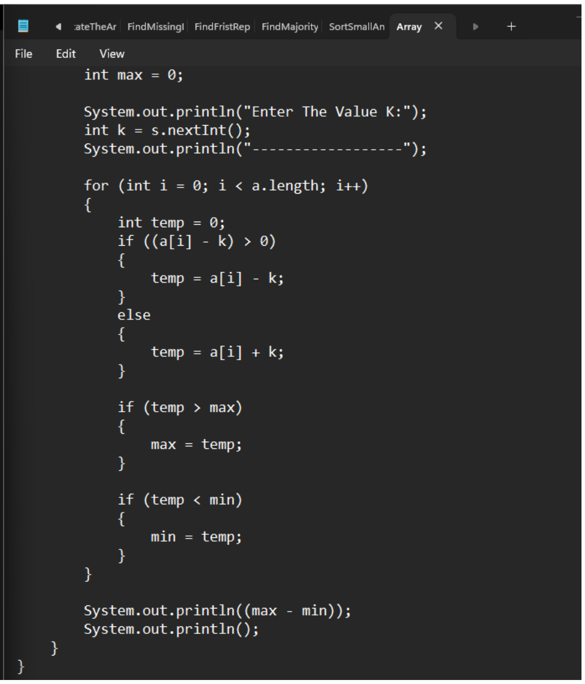
```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>java ArrayTower
Enter The Size Of array:
3
Enter array:
1 15 10
Enter The Value K:
6
-----------------
5


C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>
```



```java
import java.util.Scanner;

class ArrayTower
{
    public static void main(String[] args)
    {
        Scanner s = new Scanner(System.in);

        System.out.println("Enter The Size Of array:");
        int n1 = s.nextInt();
        int[] a = new int[n1];

        System.out.println("Enter array:");
        for (int i = 0; i < a.length; i++)
        {
            a[i] = s.nextInt();
        }

        int min = Integer.MAX_VALUE;
        int max = 0;

        System.out.println("Enter The Value K:");
        int k = s.nextInt();
        System.out.println("-----------------");

        for (int i = 0; i < a.length; i++)
        {
            int temp = 0;
            if ((a[i] - k) > 0)
            {
                temp = a[i] - k;
            }
            else
```



```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>java ArrayTower
Enter The Size Of array:
3
Enter array:
1 15 10
Enter The Value K:
6
-----------------
5


C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>
```



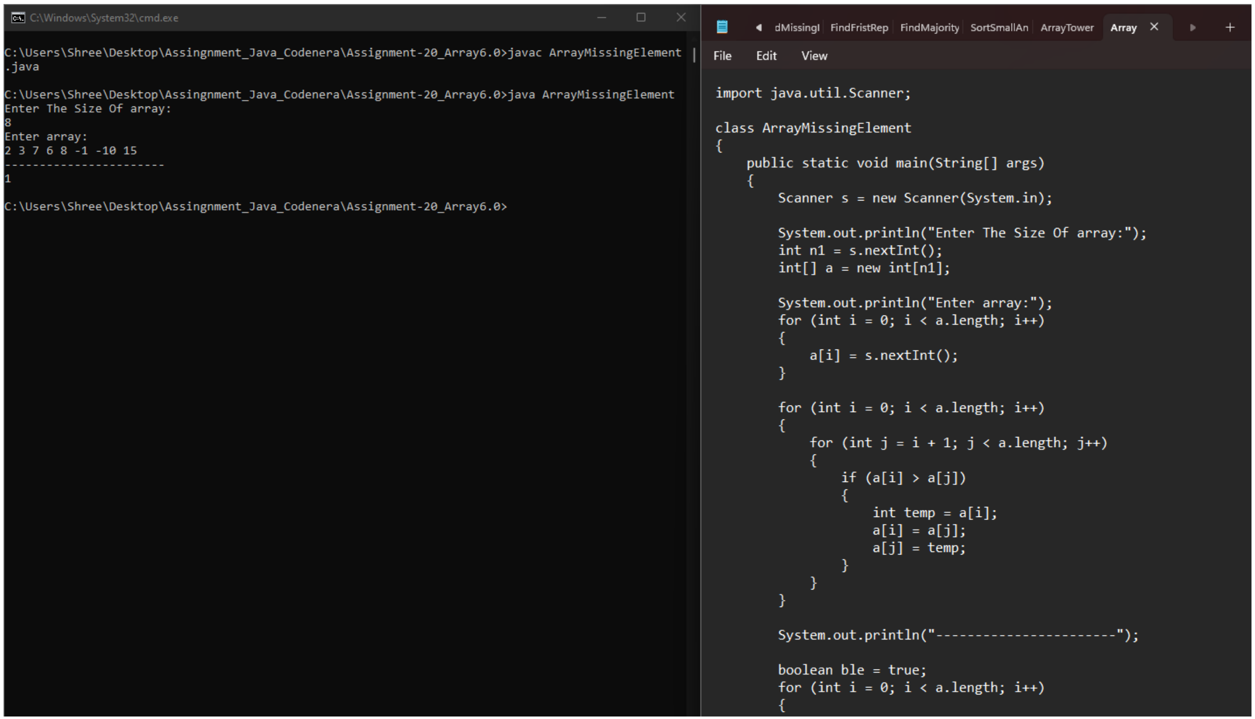
```java
        int max = 0;

        System.out.println("Enter The Value K:");
        int k = s.nextInt();
        System.out.println("-----------------");

        for (int i = 0; i < a.length; i++)
        {
            int temp = 0;
            if ((a[i] - k) > 0)
            {
                temp = a[i] - k;
            }
            else
            {
                temp = a[i] + k;
            }

            if (temp > max)
            {
                max = temp;
            }

            if (temp < min)
            {
                min = temp;
            }
        }

        System.out.println((max - min));
        System.out.println();
    }
}
```

Q11.Given an unsorted array arr[] with both positive and negative elements, the task is to find the smallest positive number missing from the array.

Note: You can modify the original array.

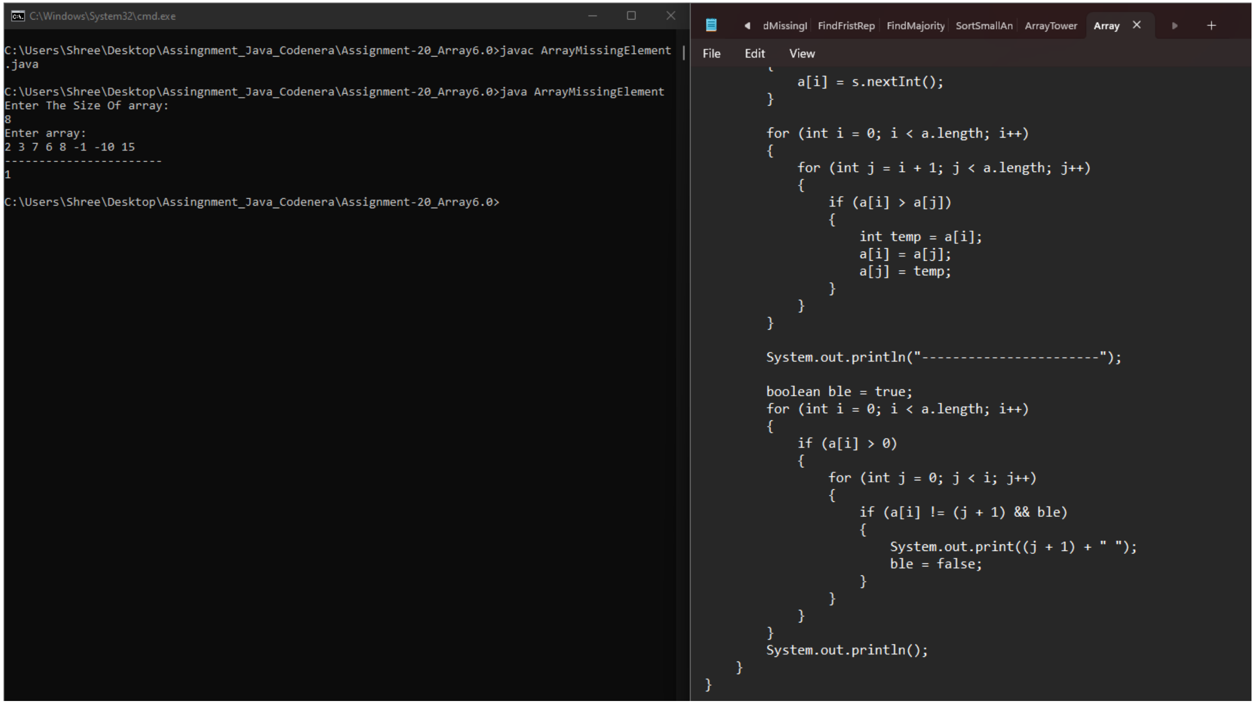
Examples:Input: arr[] = {2, 3, 7, 6, 8, -1, -10, 15}

Output: 1



```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>javac ArrayMissingElement
.java

C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>java ArrayMissingElement
Enter The Size Of array:
8
Enter array:
2 3 7 6 8 -1 -10 15
----------------------
1

C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>
```

```java
import java.util.Scanner;

class ArrayMissingElement
{
    public static void main(String[] args)
    {
        Scanner s = new Scanner(System.in);

        System.out.println("Enter The Size Of array:");
        int n1 = s.nextInt();
        int[] a = new int[n1];

        System.out.println("Enter array:");
        for (int i = 0; i < a.length; i++)
        {
            a[i] = s.nextInt();
        }

        for (int i = 0; i < a.length; i++)
        {
            for (int j = i + 1; j < a.length; j++)
            {
                if (a[i] > a[j])
                {
                    int temp = a[i];
                    a[i] = a[j];
                    a[j] = temp;
                }
            }
        }

        System.out.println("----------------------");

        boolean ble = true;
        for (int i = 0; i < a.length; i++)
        {
```



```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>javac ArrayMissingElement
.java

C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>java ArrayMissingElement
Enter The Size Of array:
8
Enter array:
2 3 7 6 8 -1 -10 15
----------------------
1

C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>
```

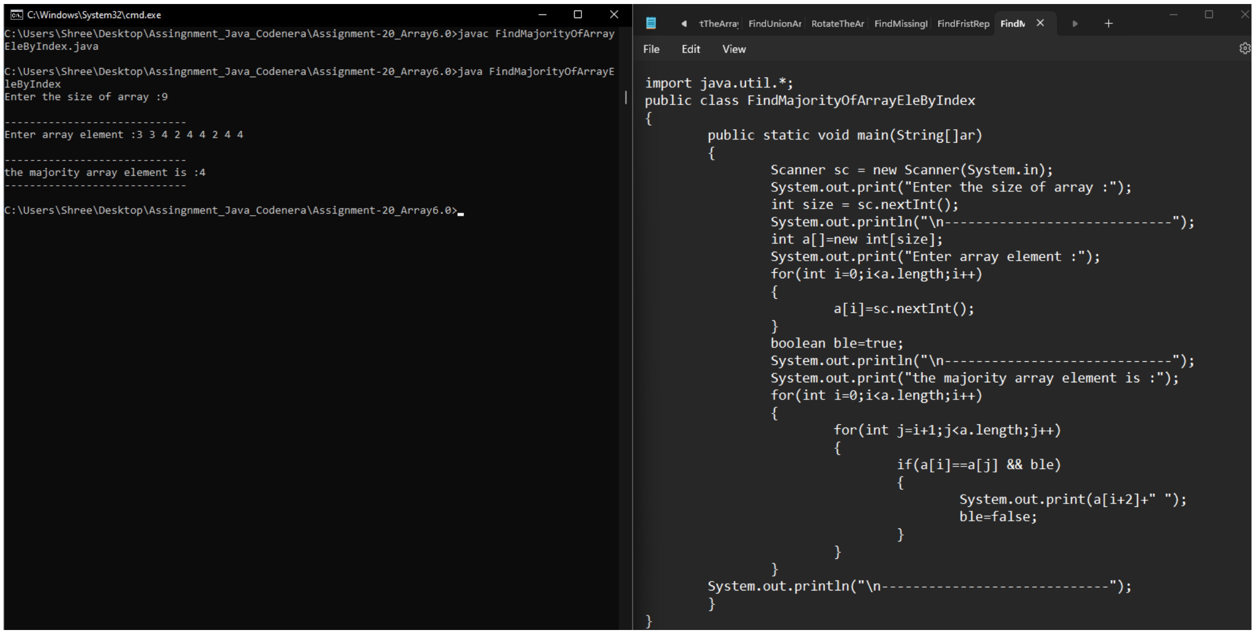
```java
            a[i] = s.nextInt();
        }

        for (int i = 0; i < a.length; i++)
        {
            for (int j = i + 1; j < a.length; j++)
            {
                if (a[i] > a[j])
                {
                    int temp = a[i];
                    a[i] = a[j];
                    a[j] = temp;
                }
            }
        }

        System.out.println("----------------------");

        boolean ble = true;
        for (int i = 0; i < a.length; i++)
        {
            if (a[i] > 0)
            {
                for (int j = 0; j < i; j++)
                {
                    if (a[i] != (j + 1) && ble)
                    {
                        System.out.print((j + 1) + " ");
                        ble = false;
                    }
                }
            }
        }
        System.out.println();
    }
}
```

Q12.Find the majority element in the array. A majority element in an array A[] of size n is an element that appears more than n/2 times (and hence there is at most one such element).

Examples :

Input : {3, 3, 4, 2, 4, 4, 2, 4, 4}

Output : 4



```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>javac FindMajorityOfArray
EleByIndex.java

C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>java FindMajorityOfArrayE
leByIndex
Enter the size of array :9

-----------------------------
Enter array element :3 3 4 2 4 4 2 4 4

-----------------------------
the majority array element is :4
-----------------------------

C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>
```

```java
import java.util.*;
public class FindMajorityOfArrayEleByIndex
{
        public static void main(String[]ar)
        {
                Scanner sc = new Scanner(System.in);
                System.out.print("Enter the size of array :");
                int size = sc.nextInt();
                System.out.println("\n-----------------------------");
                int a[]=new int[size];
                System.out.print("Enter array element :");
                for(int i=0;i<a.length;i++)
                {
                        a[i]=sc.nextInt();
                }
                boolean ble=true;
                System.out.println("\n-----------------------------");
                System.out.print("the majority array element is :");
                for(int i=0;i<a.length;i++)
                {
                        for(int j=i+1;j<a.length;j++)
                        {
                                if(a[i]==a[j] && ble)
                                {
                                        System.out.print(a[i+2]+" ");
                                        ble=false;
                                }
                        }
                }
        System.out.println("\n-----------------------------");
        }
}
```

Q13. Given two sorted arrays A and B of size p and q, write a Java program to merge elements of A with B by maintaining the sorted order i.e.

fill A with first p smallest elements and fill B with remaining elements.

Example: Input :

int[] A = { 1, 5, 6, 7, 8, 10 }

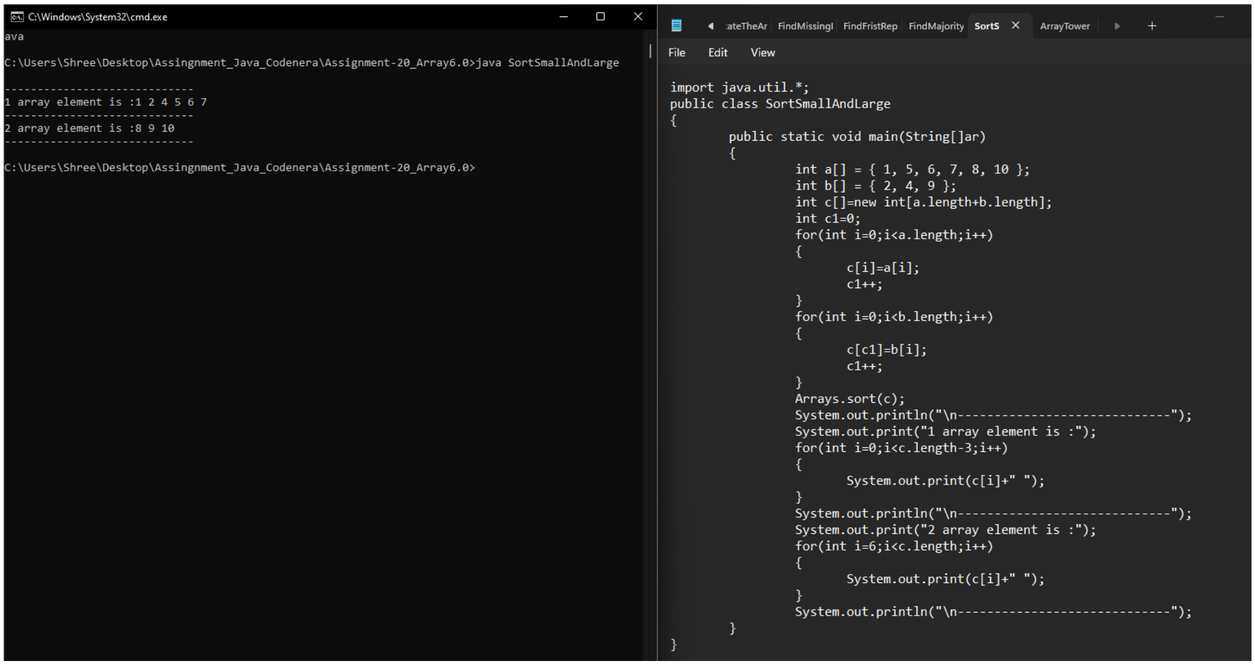
int[] B = { 2, 4, 9 }

Output:

Sorted Arrays:

A: [1, 2, 4, 5, 6, 7]

B: [8, 9, 10]



```
ava

C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>java SortSmallAndLarge

-----------------------------
1 array element is :1 2 4 5 6 7
-----------------------------
2 array element is :8 9 10
-----------------------------

C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>
```

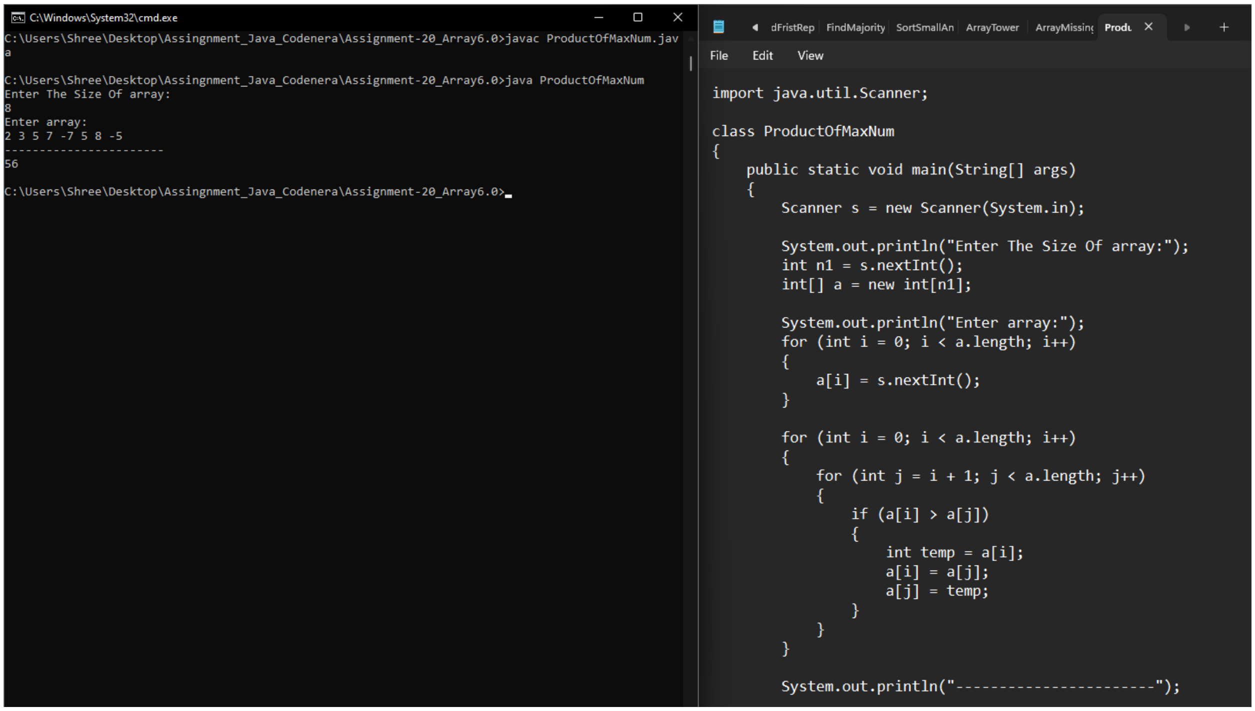
```java
import java.util.*;
public class SortSmallAndLarge
{
        public static void main(String[]ar)
        {
                int a[] = { 1, 5, 6, 7, 8, 10 };
                int b[] = { 2, 4, 9 };
                int c[]=new int[a.length+b.length];
                int c1=0;
                for(int i=0;i<a.length;i++)
                {
                        c[i]=a[i];
                        c1++;
                }
                for(int i=0;i<b.length;i++)
                {
                        c[c1]=b[i];
                        c1++;
                }
                Arrays.sort(c);
                System.out.println("\n-----------------------------");
                System.out.print("1 array element is :");
                for(int i=0;i<c.length-3;i++)
                {
                        System.out.print(c[i]+" ");
                }
                System.out.println("\n-----------------------------");
                System.out.print("2 array element is :");
                for(int i=6;i<c.length;i++)
                {
                        System.out.print(c[i]+" ");
                }
                System.out.println("\n-----------------------------");
        }
}
```

Q14.Write a Java program to find maximum product of two integers in a given array of integers.

Example:

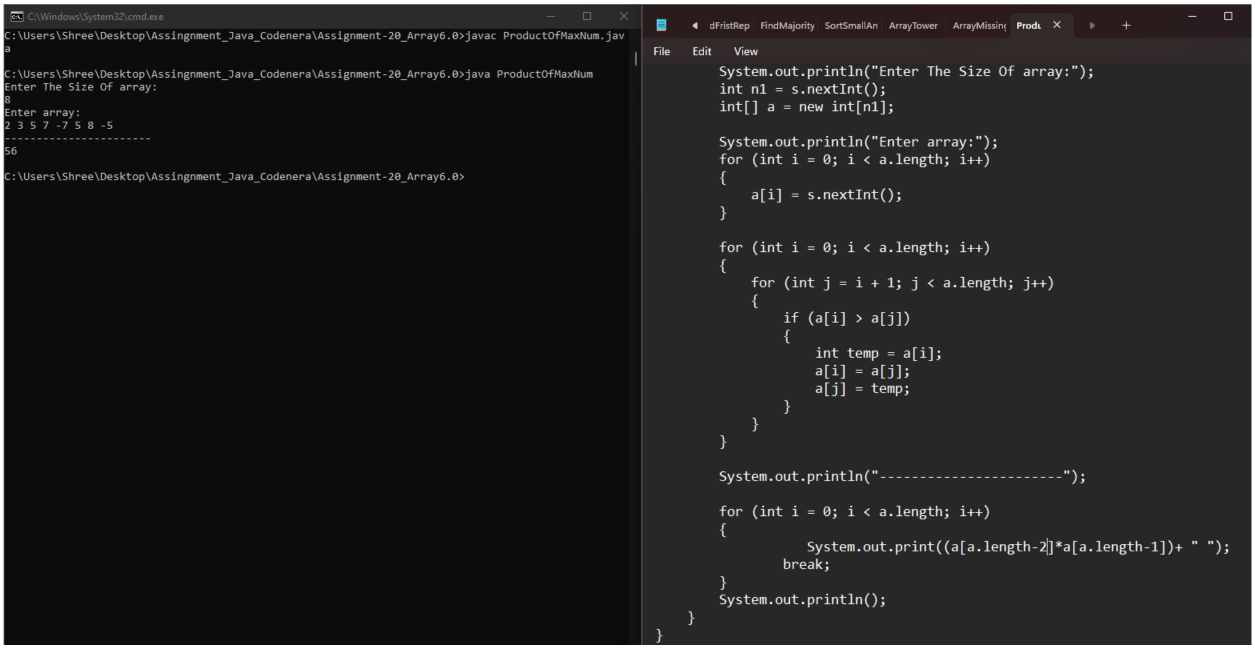
Input : nums = { 2, 3, 5, 7, -7, 5, 8, -5 }

Output: Pair is (7, 8), Maximum Product: 56



```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>javac ProductOfMaxNum.jav
a

C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>java ProductOfMaxNum
Enter The Size Of array:
8
Enter array:
2 3 5 7 -7 5 8 -5
----------------------
56

C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>
```

```java
import java.util.Scanner;

class ProductOfMaxNum
{
    public static void main(String[] args)
    {
        Scanner s = new Scanner(System.in);

        System.out.println("Enter The Size Of array:");
        int n1 = s.nextInt();
        int[] a = new int[n1];

        System.out.println("Enter array:");
        for (int i = 0; i < a.length; i++)
        {
            a[i] = s.nextInt();
        }

        for (int i = 0; i < a.length; i++)
        {
            for (int j = i + 1; j < a.length; j++)
            {
                if (a[i] > a[j])
                {
                    int temp = a[i];
                    a[i] = a[j];
                    a[j] = temp;
                }
            }
        }

        System.out.println("----------------------");
```



```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>javac ProductOfMaxNum.jav
a

C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>java ProductOfMaxNum
Enter The Size Of array:
8
Enter array:
2 3 5 7 -7 5 8 -5
----------------------
56

C:\Users\Shree\Desktop\Assingnment_Java_Codenera\Assignment-20_Array6.0>
```

```java
        System.out.println("Enter The Size Of array:");
        int n1 = s.nextInt();
        int[] a = new int[n1];

        System.out.println("Enter array:");
        for (int i = 0; i < a.length; i++)
        {
            a[i] = s.nextInt();
        }

        for (int i = 0; i < a.length; i++)
        {
            for (int j = i + 1; j < a.length; j++)
            {
                if (a[i] > a[j])
                {
                    int temp = a[i];
                    a[i] = a[j];
                    a[j] = temp;
                }
            }
        }

        System.out.println("----------------------");

        for (int i = 0; i < a.length; i++)
        {
                     System.out.print((a[a.length-2]*a[a.length-1])+ " ");
                break;
        }
        System.out.println();
    }
}
```