```
package org.ex1;
import java.util.Scanner;
public class Program {
private static Scanner sc = new Scanner(System.in);
public static void acceptRecord(int[] arr) {
if (arr != null) {
for (int index = 0; index < arr.length; ++index) {</pre>
System.out.print("Enter element: ");
arr[index] = sc.nextInt();
}
}
}
public static void printRecord(int[] arr) {
if (arr != null) {
for (int index = 0; index < arr.length; ++index) {</pre>
System.out.print(arr[index] + " ");
System.out.println();
public static void CloseScaner() {
sc.close();
public static void main(String[] args) {
int[] arr = new int[5];
Program.acceptRecord(arr);
Program.printRecord(arr);
Program.CloseScaner();
}
Assignment7 - Question1/src/org/ex1/Program,java - Eclipse IDE
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1 package org.exi;
3 import java.util.Scanner;
4 public class Program (
5 private static Scanner sc = new Scanner(System.in);
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org.ex1

org.ex1

s sc: Scanner
s acceptRecord(int[]): void
s printRecord(int[]): void
s CloseScaner(): void
s main(Strindl1): void
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```

```
package org.ex2;
import java.util.Scanner;
public class Program {
private static Scanner sc = new Scanner(System.in);
public static void acceptRecord(int[] arr) {
if (arr != null) {
for (int index = 0; index < arr.length; ++index) {</pre>
System.out.print("Enter element for arr[" + index + "]: ");
arr[index] = sc.nextInt();
}
}
}
public static void printRecord(int[] arr) {
if (arr != null) {
for (int index = 0; index < arr.length; ++index) {</pre>
System.out.println("arr[" + index + "] = " + arr[index]);
}
}
public static void main(String[] args) {
int[] arr = new int[5];
System.out.println("Default values of the array:");
Program.printRecord(arr);
Program.acceptRecord(arr);
System.out.println("Updated values of the array:");
Program.printRecord(arr);
}
```

```
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```

```
package org.ex3;
import java.util.Scanner;
public class Program {
public static int findMax(int[] arr) {
int max = arr[0];
for (int i = 1; i < arr.length; i++) {</pre>
if (arr[i] > max) {
max = arr[i];
}
}
return max;
}
public static int findMin(int[] arr) {
int min = arr[0];
for (int i = 1; i < arr.length; i++) {</pre>
if (arr[i] < min) {</pre>
min = arr[i];
}
}
return min;
}
public static void main(String[] args) {
Scanner sc = new Scanner(System.in);
System.out.print("Enter the number of elements in the array: ");
int n = sc.nextInt();
int[] arr = new int[n];
```

```
System.out.println("Enter the elements of the array:");
for (int i = 0; i < n; i++) {
arr[i] = sc.nextInt();
int maxValue = findMax(arr);
int minValue = findMin(arr);
System.out.println("Maximum value in the array: " + maxValue);
System.out.println("Minimum value in the array: " + minValue);
sc.close();
}
}
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                                                                                                                                                                                                                                                                                           public static int findMax(int[] arr) {
   int max = arr[0];
   for (int i = 1; i < arr.length; i++) {
      if (arr[i] > max) {
            max = arr[i];
      }
   }
}
                                                                                                                                                                                                                                                                                          Find All Activate...

> W Question3

> M JRE System Library [JavaSE-1.8]

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→ # org.ex3
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                Program.java
    Question4
Question5
Question6
Question7
                                                                                         Maximum value in the array: 18
Minimum value in the array: 10
```

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```
package org.ex4;
import java.util.Scanner;

public class Program {
  public static int[] removeDuplicates(int[] arr) {
   int n = arr.length;
  int[] temp = new int[n];
  int j = 0;

for (int i = 0; i < n; i++) {
  boolean isDuplicate = false;
  for (int k = 0; k < j; k++) {
   if (arr[i] == temp[k]) {
    isDuplicate = true;
   break;
}</pre>
```

```
if (!isDuplicate) {
temp[j++] = arr[i];
}
}
int[] uniqueArray = new int[j];
for (int i = 0; i < j; i++) {
uniqueArray[i] = temp[i];
}
return uniqueArray;
}
public static void main(String[] args) {
Scanner sc = new Scanner(System.in);
System.out.print("Enter the number of elements in the array: ");
int n = sc.nextInt();
int[] arr = new int[n];
System.out.println("Enter the elements of the array:");
for (int i = 0; i < n; i++) {</pre>
arr[i] = sc.nextInt();
int[] uniqueArray = removeDuplicates(arr);
System.out.println("Array without duplicates:");
for (int i = 0; i < uniqueArray.length; i++) {</pre>
System.out.print(uniqueArray[i] + " ");
sc.close();
}
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3 - | 3 | 3 | 4 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5
                                                   2
3 import java.util.Scanner;
                                                                                                                                                             Find All Activate...
                                                        public static int[] removeDuplicates(int[] arr) {
   int n = arr.length;
   int[] temp = new int[n];
   int j = 0;
                                                            for (int i = 0; i < n; i++) {
   boolean isOuplicate = false;
   for (int k = 0; k < j; k++) {
      if (arr[i] == temp[k]) {
            isOuplicate = true;
            break;
            real</pre>
                                                                                                                                                                      $ E 12 × × 0 × 8
                                                                                                                                                             org.ex4

Program

s removeDuplicates(int[]): int[]

main(String[]): void
                                                 Array without duplicates:
12 13 14 16
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```

```
package org.ex5;
import java.util.Scanner;
public class Program {
public static int[] findIntersection(int[] arr1, int[] arr2) {
int n1 = arr1.length;
int n2 = arr2.length;
int[] temp = new int[Math.min(n1, n2)];
int k = 0;
for (int i = 0; i < n1; i++) {</pre>
for (int j = 0; j < n2; j++) {</pre>
if (arr1[i] == arr2[j]) {
boolean alreadyExists = false;
for (int m = 0; m < k; m++) {</pre>
if (temp[m] == arr1[i]) {
alreadyExists = true;
break;
}
if (!alreadyExists) {
temp[k++] = arr1[i];
}
int[] intersectionArray = new int[k];
for (int i = 0; i < k; i++) {</pre>
intersectionArray[i] = temp[i];
return intersectionArray;
}
public static void main(String[] args) {
Scanner sc = new Scanner(System.in);
System.out.print("Enter the number of elements in the first array: ");
int n1 = sc.nextInt();
int[] arr1 = new int[n1];
System.out.println("Enter the elements of the first array:");
for (int i = 0; i < n1; i++) {</pre>
arr1[i] = sc.nextInt();
}
System.out.print("Enter the number of elements in the second array: ");
int n2 = sc.nextInt();
int[] arr2 = new int[n2];
System.out.println("Enter the elements of the second array:");
for (int i = 0; i < n2; i++) {</pre>
arr2[i] = sc.nextInt();
}
int[] intersection = findIntersection(arr1, arr2);
```

```
System.out.println("Intersection of the two arrays:");
for (int i = 0; i < intersection.length; i++) {</pre>
System.out.print(intersection[i] + " ");
sc.close();
}
                                                                                                                                                                                                                                                                                                                                                         - 5 X
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                                                                                                                                                                                                                                                                                                                      Find ► All ► Activate... ?
                                                                                                                      System.out.print("Enter the number of elements in the first array: ");
int nl = sc.nextin();
int[] arrl = new int[nl];
System.out.println("Enter the elements of the first array:");
for (int i * 0; i < nl; int]
arrl[i] = sc.nextint();
                                                                                                                                                                                                                                                                                                                    © Outline X

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□ org.ex5

□ p. Program
□ findintersection(int], int[]) : int[]
□ f main(String[]) : void
                                                                                                                         System.out.print("Enter the number of elements in the second array: ");
int n2 = sc.nextInt();
int[] arr2 = new int[n2];
                                                                                                Enter the number of elements in the second array: 2
Enter the elements of the second array:
                                                                                                  Intersection of the two arrays:
                                                                        Type here to search
```

```
package org.ex6;
import java.util.Scanner;
public class Program {
public static int findMissingNumber(int[] arr, int N) {
int expectedSum = N * (N + 1) / 2;
int actualSum = 0;
for (int num : arr) {
actualSum += num;
return expectedSum - actualSum;
}
public static void main(String[] args) {
Scanner sc = new Scanner(System.in);
System.out.print("Enter the value of N (size of the array + 1): ");
int N = sc.nextInt();
int[] arr = new int[N - 1];
System.out.println("Enter " + (N - 1) + " elements (numbers from 1 to " + N
+ "):");
```

```
for (int i = 0; i < N - 1; i++) {</pre>
arr[i] = sc.nextInt();
int missingNumber = findMissingNumber(arr, N);
System.out.println("The missing number is: " + missingNumber);
sc.close();
}
}
                                                                                                                                                                                                                                                                                                                                                           - 6 ×
Assignment7 - Question6/src/org/ex6/Program.java - Eclipse IDE
Q [함] 12 짱
> 🔀 Question1
> 🔀 Question2
                                                                                                        import java.util.Scanner:
                                                                                                      5 public class Program {
  > ﷺ Question5
> ﷺ Question6
> ﷺ [RE System Library [Java5E-1.8]]
> ﷺ [RE System Library [Java5E-1.8]]
> ∰ Question6
> ∰ [Program.java]
> ∰ Question6
> ∰ Question9
                                                                                                      \overset{'}{\otimes \ominus} \qquad \text{public static int findMissingNumber(int[] arr, int N) } \ \{
                                                                                                                                                                                                                                                                                                                                         $ □ 12 × × 0 × 8
                                                                                                                       int actualSum = 0;
for (int num : arr) {
    actualSum += num;
}
                                                                                                                                                                                                                                                                                                                        org.ec6

Program

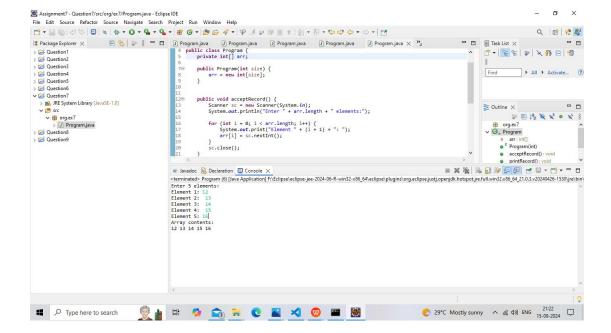
SindMissingNumber(int[], int): int

main(String[]): void
                                                                                                 The missing number is: 2
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```

```
package org.ex1;
import java.util.Scanner;
public class Program {
private static Scanner sc = new Scanner(System.in);
public static void acceptRecord(int[] arr) {
if (arr != null) {
for (int index = 0; index < arr.length; ++index) {</pre>
System.out.print("Enter element: ");
arr[index] = sc.nextInt();
}
}
}
public static void printRecord(int[] arr) {
if (arr != null) {
for (int index = 0; index < arr.length; ++index) {</pre>
System.out.print(arr[index] + " ");
System.out.println();
}
```

```
public static void CloseScaner() {
    sc.close();
}

public static void main(String[] args) {
    int[] arr = new int[5];
    Program.acceptRecord(arr);
    Program.printRecord(arr);
    Program.CloseScaner();
}
}
```



```
package org.ex8;
import java.util.Scanner;

public class Program {
  private int[] arr;

public Program(int size) {
  arr = new int[size];
  }

public void setArray(int[] values) {
  if (values.length == arr.length) {
  for (int i = 0; i < arr.length; i++) {
  arr[i] = values[i];
  }
  } else {
  System.out.println("Error: Array size mismatch.");
  }
}</pre>
```

```
public int[] getArray() {
return arr;
}
public void printArray() {
System.out.println("Array contents:");
for (int value : arr) {
System.out.print(value + " ");
}
System.out.println();
public static void main(String[] args) {
Scanner sc = new Scanner(System.in);
Program program = new Program(5);
System.out.println("Enter " + program.getArray().length + " elements:");
int[] inputArray = new int[program.getArray().length];
for (int i = 0; i < inputArray.length; i++) {</pre>
System.out.print("Element " + (i + 1) + ": ");
inputArray[i] = sc.nextInt();
}
program.setArray(inputArray);
program.printArray();
sc.close();
}
}
Assignment7 - Question8/src/org/ex8/Program.java - Eclipse IDE
                                                                                                                                                                                                                                                                                                                                                                                              5 ×
s [] Program.java [] Program.j
              public class Program {
    private int[] arr;
       13

140 public void setArray(int[] values) {
      © Declaration © Console ×

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```

```
import java.util.Scanner;
```

```
class AirplaneSeating {
private char[][] seats;
private int rows;
private int columns;
public AirplaneSeating(int rows, int columns) {
this.rows = rows;
this.columns = columns;
seats = new char[rows][columns];
for (int i = 0; i < rows; i++) {</pre>
for (int j = 0; j < columns; j++) {</pre>
seats[i][j] = '0';
}
}
}
public boolean bookSeat(int row, int col) {
if (isSeatValid(row, col)) {
if (seats[row][col] == '0') {
seats[row][col] = 'X';
System.out.println("Seat " + (row + 1) + "," + (col + 1) + " has been
booked.");
return true;
} else {
System.out.println("Seat " + (row + 1) + "," + (col + 1) + " is already
booked.");
} else {
System.out.println("Invalid seat selection.");
}
return false;
}
public boolean cancelSeat(int row, int col) {
if (isSeatValid(row, col)) {
if (seats[row][col] == 'X') {
seats[row][col] = '0';
System.out.println("Booking for seat " + (row + 1) + "," + (col + 1) + "
has been canceled.");
return true;
} else {
System.out.println("Seat " + (row + 1) + "," + (col + 1) + " is not
booked.");
} else {
System.out.println("Invalid seat selection.");
return false;
}
public boolean isSeatAvailable(int row, int col) {
if (isSeatValid(row, col)) {
return seats[row][col] == '0';
}
```

```
System.out.println("Invalid seat selection.");
return false;
public void displaySeatingChart() {
System.out.println("Seating Chart:");
for (int i = 0; i < rows; i++) {</pre>
for (int j = 0; j < columns; j++) {</pre>
System.out.print(seats[i][j] + " ");
System.out.println();
private boolean isSeatValid(int row, int col) {
return row >= 0 && row < rows && col >= 0 && col < columns;</pre>
}
}
public class Program {
public static void main(String[] args) {
Scanner scanner = new Scanner(System.in);
AirplaneSeating airplane = new AirplaneSeating(5, 4);
airplane.displaySeatingChart();
airplane.bookSeat(2, 1);
airplane.bookSeat(3, 2);
airplane.displaySeatingChart();
airplane.cancelSeat(2, 1);
if (airplane.isSeatAvailable(2, 1)) {
System.out.println("Seat 3,2 is available.");
} else {
System.out.println("Seat 3,2 is not available.");
airplane.displaySeatingChart();
scanner.close();
}
}
```

