Write a Java program to find the index of an array element.

public class Exercise6 {

public static int findIndex (int[] my\_array, int t) {

if (my\_array == null) return -1;

int len = my\_array.length;

int i = 0;

while (i < len) {

if (my\_array[i] == t) return i;

else i=i+1;

}

return -1;

}

public static void main(String[] args) {

int[] my\_array = {25, 14, 56, 15, 36, 56, 77, 18, 29, 49};

System.out.println("Index position of 25 is: " + findIndex(my\_array, 25));

System.out.println("Index position of 77 is: " + findIndex(my\_array, 77));

}

}

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Sample Output:

Index position of 25 is: 0

Index position of 77 is: 6

Graphical user interface, text, application

Description automatically generated

Write a Java program to remove a specific element from an array.

import java.util.Arrays;

public class Exercise7 {

public static void main(String[] args) {

int[] my\_array = {25, 14, 56, 15, 36, 56, 77, 18, 29, 49};

System.out.println("Original Array : "+Arrays.toString(my\_array));

// Remove the second element (index->1, value->14) of the array

int removeIndex = 1;

for(int i = removeIndex; i < my\_array.length -1; i++){

my\_array[i] = my\_array[i + 1];

}

// We cannot alter the size of an array , after the removal, the last and second last element in the array will exist twice

System.out.println("After removing the second element: "+Arrays.toString(my\_array));

}

}

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Sample Output:

Original Array : [25, 14, 56, 15, 36, 56, 77, 18, 29, 49]

After removing the second element: [25, 56, 15, 36, 56, 77, 18, 29, 49, 49]

Graphical user interface, text, application

Description automatically generated

Write a Java program to copy an array by iterating the array.

import java.util.Arrays;

public class Exercise8 {

public static void main(String[] args) {

int[] my\_array = {25, 14, 56, 15, 36, 56, 77, 18, 29, 49};

int[] new\_array = new int[10];

System.out.println("Source Array : "+Arrays.toString(my\_array));

for(int i=0; i < my\_array.length; i++) {

new\_array[i] = my\_array[i];

}

System.out.println("New Array: "+Arrays.toString(new\_array));

}

}

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Sample Output:

Source Array : [25, 14, 56, 15, 36, 56, 77, 18, 29, 49]

New Array: [25, 14, 56, 15, 36, 56, 77, 18, 29, 49]

Graphical user interface, text, application

Description automatically generated

Write a Java program to insert an element (specific position) into an array.

import java.util.Arrays;

public class Exercise9 {

public static void main(String[] args) {

int[] my\_array = {25, 14, 56, 15, 36, 56, 77, 18, 29, 49};

// Insert an element in 3rd position of the array (index->2, value->5)

int Index\_position = 2;

int newValue = 5;

System.out.println("Original Array : "+Arrays.toString(my\_array));

for(int i=my\_array.length-1; i > Index\_position; i--){

my\_array[i] = my\_array[i-1];

}

my\_array[Index\_position] = newValue;

System.out.println("New Array: "+Arrays.toString(my\_array));

}

}

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Sample Output:

Original Array : [25, 14, 56, 15, 36, 56, 77, 18, 29, 49]

New Array: [25, 14, 5, 56, 15, 36, 56, 77, 18, 29]

Graphical user interface, application

Description automatically generated

Write a Java program to find the maximum and minimum value of an array.

import java.util.Arrays;

public class Exercise10 {

static int max;

static int min;

public static void max\_min(int my\_array[]) {

max = my\_array[0];

min = my\_array[0];

int len = my\_array.length;

for (int i = 1; i < len - 1; i = i + 2) {

if (i + 1 > len) {

if (my\_array[i] > max) max = my\_array[i];

if (my\_array[i] < min) min = my\_array[i];

}

if (my\_array[i] > my\_array[i + 1]) {

if (my\_array[i] > max) max = my\_array[i];

if (my\_array[i + 1] < min) min = my\_array[i + 1];

}

if (my\_array[i] < my\_array[i + 1]) {

if (my\_array[i] < min) min = my\_array[i];

if (my\_array[i + 1] > max) max = my\_array[i + 1];

}

}

}

public static void main(String[] args) {

int[] my\_array = {25, 14, 56, 15, 36, 56, 77, 18, 29, 49};

max\_min(my\_array);

System.out.println(" Original Array: "+Arrays.toString(my\_array));

System.out.println(" Maximum value for the above array = " + max);

System.out.println(" Minimum value for the above array = " + min);

}

}

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Sample Output:

Original Array: [25, 14, 56, 15, 36, 56, 77, 18, 29, 49]

Maximum value for the above array = 77

Minimum value for the above array = 14

Graphical user interface, text, application

Description automatically generated

Write a Java program to reverse an array of integer values.

import java.util.Arrays;

public class Exercise11 {

public static void main(String[] args){

int[] my\_array1 = {

1789, 2035, 1899, 1456, 2013,

1458, 2458, 1254, 1472, 2365,

1456, 2165, 1457, 2456};

System.out.println("Original array : "+Arrays.toString(my\_array1));

for(int i = 0; i < my\_array1.length / 2; i++)

{

int temp = my\_array1[i];

my\_array1[i] = my\_array1[my\_array1.length - i - 1];

my\_array1[my\_array1.length - i - 1] = temp;

}

System.out.println("Reverse array : "+Arrays.toString(my\_array1));

}

}

Copy

Sample Output:

Original array : [1789, 2035, 1899, 1456, 2013, 1458, 2458, 1254, 1472, 2365, 1456, 2165, 1457, 2456]

Reverse array : [2456, 1457, 2165, 1456, 2365, 1472, 1254, 2458, 1458, 2013, 1456, 1899, 2035, 1789]

Text

Description automatically generated