Java - Arrays

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Creating and Processing Arrays : Part I

```
public class TestArray {

    public static void main(String[] args) {
        double[] myList = {1.9, 2.9, 3.4, 3.5};

        // Works but not the preferred way
        // double myList[] = {1.9, 2.9, 3.4, 3.5};

        // Print all the array elements
        for (int i = 0; i < myList.length; i++) {
            System.out.print(myList[i] + "  ");
        }
        System.out.println("");

        // Print all the array elements
        for (double element: myList) {
            System.out.print(element+"  ");
        }
        System.out.println("");
```

Creating and Processing Arrays : Part II

```
        // Summing all elements
        double total = 0;
        for (int i = 0; i < myList.length; i++) {
            total += myList[i];
        }
        System.out.println("Total is " + total);

        // Finding the largest element
        double max = myList[0];
        for (int i = 1; i < myList.length; i++) {
            if (myList[i] > max) max = myList[i];
        }
        System.out.println("Max is " + max);
    }
}
```

Creating and Processing Arrays : Part III

When the above code is compiled and executed, it produces the following result:

```
1.9 2.9 3.4 3.5
1.9 2.9 3.4 3.5
Total is 11.7
Max is 3.5
```

Passing an Array to a Method and Returning an Array from a Method : Part I

```
package ewu.cse;
public class JavaArrays {
    public static void main(String[] args) {
        int[] myList = {9, 14, 15, 17};
        // Print all the array elements
        System.out.println("Actual list");
        for (int element: myList) {
            System.out.print(element+"  ");
        }
        System.out.println("");
        int [] revereseList = reverse(myList);
        System.out.println("Reverse list");
        for (int element: revereseList) {
            System.out.print(element+"  ");
        }
        System.out.println("");
    }
```

Passing an Array to a Method and Returning an Array from a Method : Part II

```
    public static int[] reverse(int[] list) {
      int[] result = new int[list.length];
      for (int i=0,j=result.length-1;i<list.length;i++,j--) {
          result[j] = list[i];
      }
      return result;
    }
}
```

When the above code is compiled and executed, it produces the following result:

```
Actual list
9 14 15 17
Reverse list
17 15 14 9
```

References


DEITEL, Java How to Program, 11/e


Java: the complete reference, Herbert Schildt, McGraw-Hill Education Group