TutorialKart

Java Program to Print Elements of Array

Java – Print Array Elements

In this tutorial, we will learn how to traverse through an array in Java, and print those elements in the array one by one.

You can use any of the looping statements and iterate through the array. Going forward in this tutorial, we shall go through example programs, that use while loop, for loop and advanced for loop to iterate through elements and print them.

Print Array Elements using While Loop

To traverse through elements of an array using while loop, initialize an index variable with zero before while loop, and increment it in the while loop. Prepare a while loop with condition that checks if the index is still within the bounds of the array. And for the body of while loop, print the element of array by accessing it using array variable name and index.

Algorithm

Following would be the detailed steps to print elements of array.

1. Start.
2. Take array in **nums**.
3. Initialize an variable for **index** and initialize it to zero.
4. Check if **index** is less than length of the array **nums**. If the condition is false, go to ***step 7***.
5. Access the element **nums[index]** and print it.
6. Increment **index**. Go to ***step 4***.
7. Stop.

Java Program – PrintArrayElements.java

```
/**
 * Java Program - Print Elements of Array
 */

public class PrintArrayElements {

    public static void main(String[] args) {
```

```
        //array
        int[] nums = {25, 87, 69, 55};

        //while loop to iterate over elements of array
        //index is used to access elements of array
        int index = 0;
        while( index < nums.length ) {
            //get element
            int num = nums[index];
            //work with element
            System.out.println(num);
            //increment index
            index++;
        }
    }
}
```

Output

```
25
87
69
55
```

Print Array Elements using For Loop

We can use for loop to iterate over array elements and print them during each iteration.

The difference between while loop and for loop is that we write statements to initialize and update loop control variables in the for loop in a single line.

The algorithm we used for the above example using while loop, will still hold for this program of printing array elements using for loop.

In the following java program, we shall use for loop to iterate and print the element of given array.

Java Program – PrintArrayElements.java

```
/**
 * Java Program - Print Elements of Array
 */
public class PrintArrayElements {
    public static void main(String[] args) {
        //array
        int[] nums = {25, 87, 69, 55};

        //for loop to iterate over elements of array
        for(int index = 0; index < nums.length; index++) {
            //get element
            int num = nums[index];
            //work with element
            System.out.println(num);
```

```
            System.out.println(num);
        }
    }
}
```

Output

```
25
87
69
55
```

Print Array Elements using Advanced For Loop

Advanced For Loop in Java is an enhancement for the regular loop, in case of iterating over an iterable.

In the following program, we shall iterate over the array `nums`. During each iteration, we get the element to variable `num`.

Java Program – PrintArrayElements.java

```
/**
 * Java Program - Print Elements of Array
 */
public class PrintArrayElements {
    public static void main(String[] args) {
        //integer array
        int[] nums = {25, 87, 69, 55};
        //advanced for loop to iterate over elements of array
        for(int num: nums) {
            System.out.println(num);
        }
    }
}
```

Output

```
25
87
69
55
```

Conclusion

In this Java Tutorial, we have written Java programs to print array elements, using different looping statements available in Java.