Nongmaithem Rithvi Singh

A2 Batch

KODOZJ3LI

The Arrays Class

The Arrays class in **java.util** package is a part of the Java Collection Framework. This class provides static methods to dynamically create and access Java arrays. It consists of only static methods and the methods of Object class. The methods of this class can be used by the class name itself. These methods help programmers expanding horizons with arrays for instance there are often times when loops are used to do some tasks on an array like:

Fill an array with a particular value.

Sort an Array.

Search in an Array.

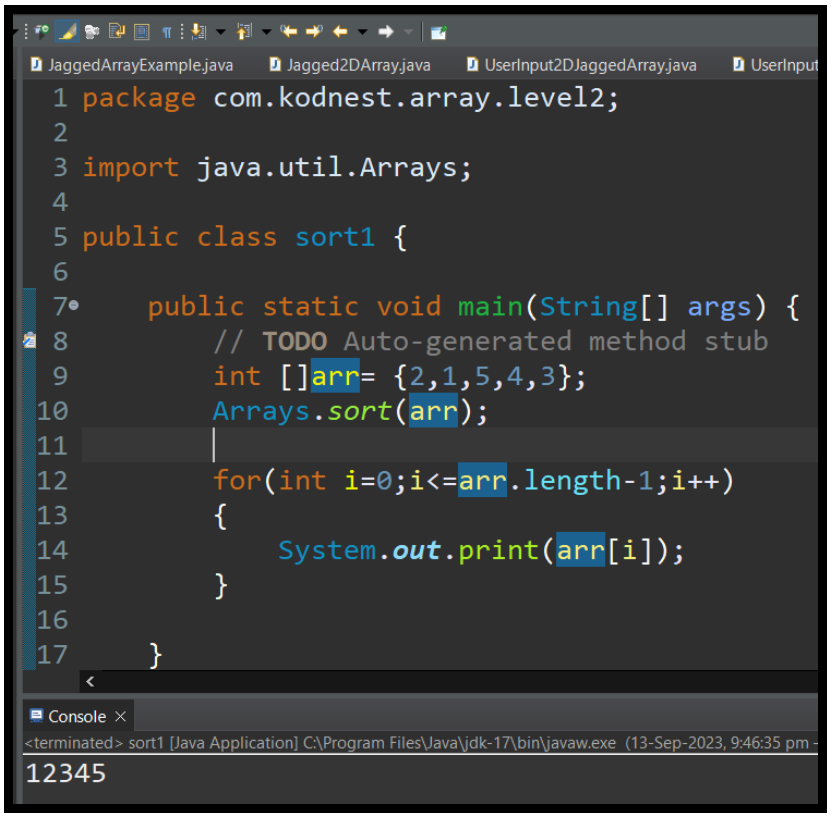
And many more.

Arrays class provides several static methods that can be used to perform these tasks directly without the use of loops, hence forth making our code super short and optimized.

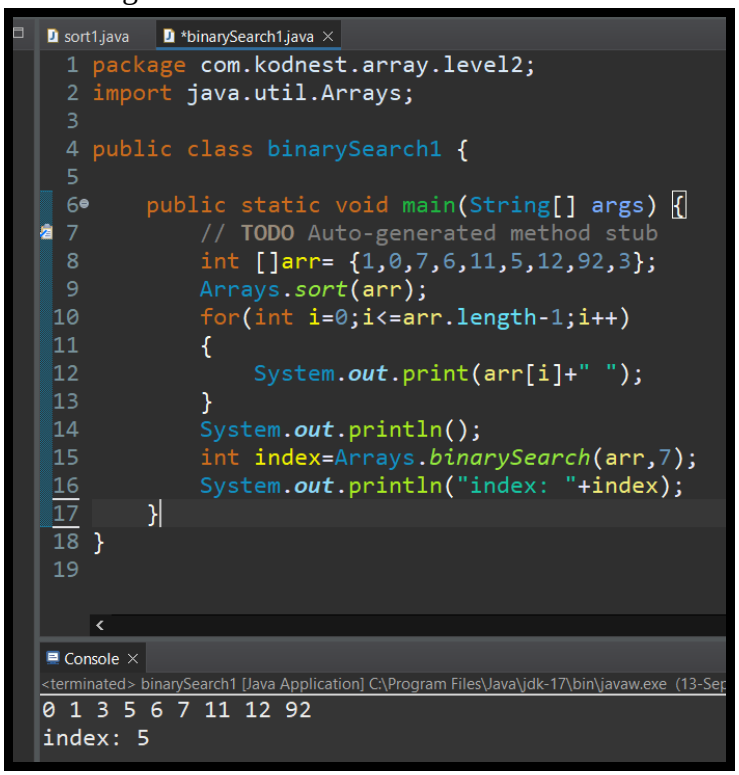
Methods in Arrays Class:

Following are some of the methods in class Arrays-

1. sort(): Sorts the complete array in ascending order.



2. binarySearch(): Searches for the specified element in the array with the help of Binary Search algorithm.



3. equals(array1,array2) : Checks if both the arrays are equal or not.

```java
package com.kodnest.array.level2;

import java.util.Arrays;

public class Equals1 {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        int []arr1= {2,1,5,4,3};
        int []arr2= {2,1,5,4,3};
        boolean check=Arrays.equals(arr1, arr2);
        System.out.println(check);

    }

}
```

```
<terminated> Equals1 [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe  (13-Sep-2023, 1
true
```

4. fill(original array, fill value) : Assigns this fill value to each index of this arrays. The parameter may also contain range, from which index to which index the operation should be done. fill(original array, FromIndex,ToIndex).

```java
package com.kodnest.array.level2;
import java.util.Arrays;

public class Fill1 {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        int []arr= {2,1,5,4,3};
        Arrays.fill(arr,7);
        for(int i=0;i<=arr.length-1;i++)
        {
            System.out.print(arr[i]);
        }
```

```
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77777
```

```java
package com.kodnest.array.level2;
import java.util.Arrays;

public class Fill1 {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        int []arr= {2,1,5,4,3};
        Arrays.fill(arr,0,2,7);
        for(int i=0;i<=arr.length-1;i++)
        {
            System.out.print(arr[i]);
        }
```

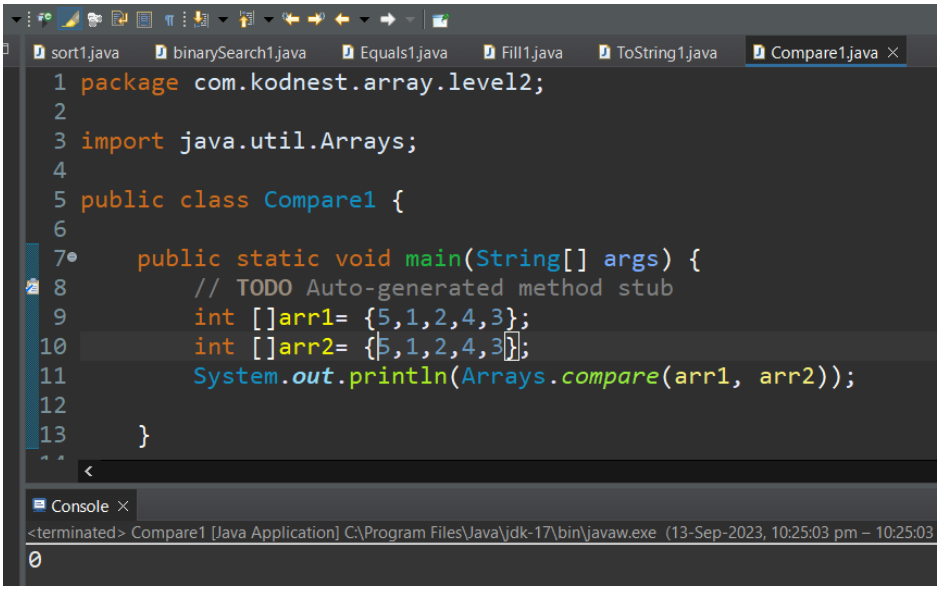
```
<terminated> Fill1 [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (13-Sep-2023
77543
```

5. toString(original array): It returns a string representation of the contents of this array. The string representation consists of a list of the array's elements, enclosed in square brackets ("[]"). Adjacent elements are separated by the characters a comma followed by a space. Elements are converted to strings as by String.valueOf() function.

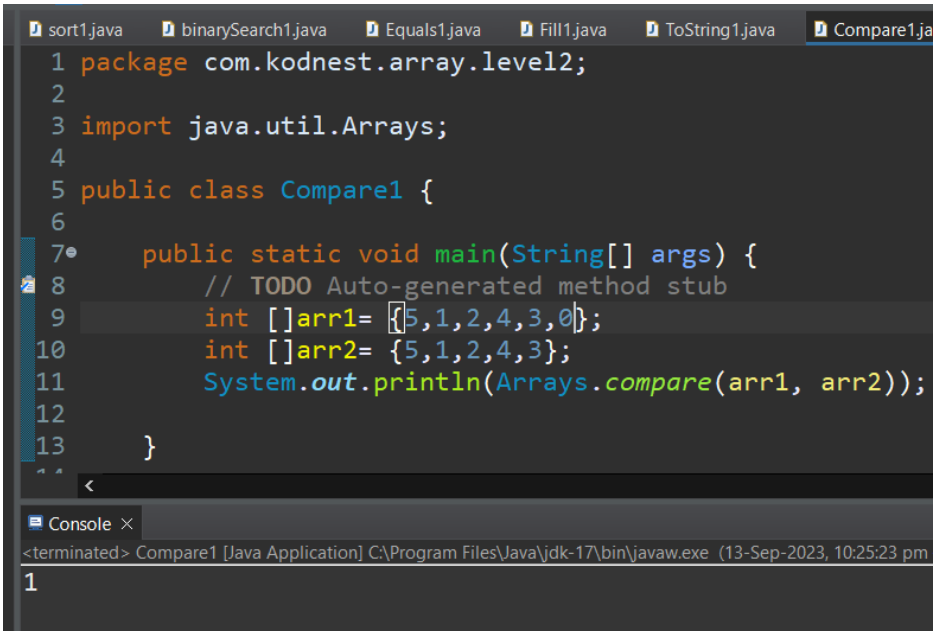
```java
package com.kodnest.array.level2;
import java.util.Arrays;

public class ToString1 {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        int []arr= {2,1,5,4,3};
        String str=Arrays.toString(arr);
        System.out.println(str);

    }
```

```
<terminated> ToString1 [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (13-Sep-202
[2, 1, 5, 4, 3]
```

6. compare(array1,array2): Compares two arrays passed as parameters lexicographically.



Returns 0 if both arrays are equal.



Returns 1 if first array is greater than the second array.

```java
package com.kodnest.array.level2;

import java.util.Arrays;

public class Compare1 {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        int []arr1= {5,1,2,4,6};
        int []arr2= {5,1,2,4,3};
        System.out.println(Arrays.compare(arr1, arr2));

    }
```

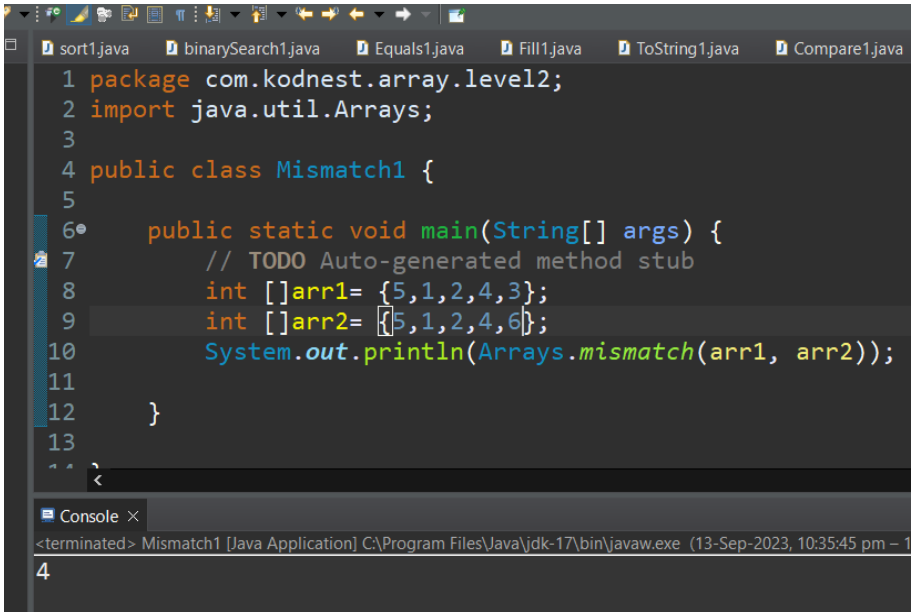
```
<terminated> Compare1 [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe  (13-Sep-2023, 10:25:38 pm – 10:2
1
```

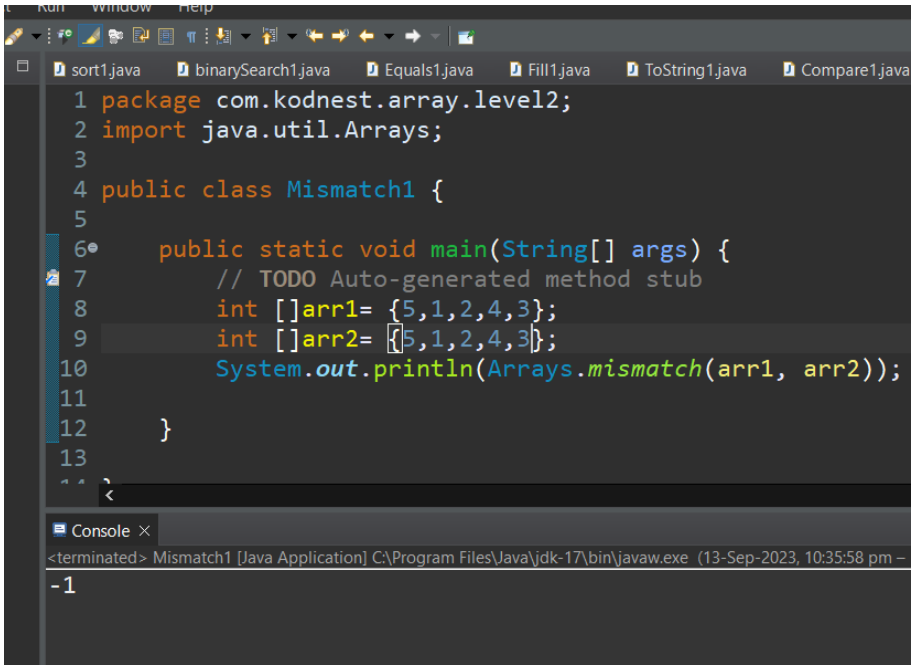
Greater Array means greater in the elements lexicographically, and not in the array length.

```java
package com.kodnest.array.level2;

import java.util.Arrays;

public class Compare1 {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        int []arr1= {5,1,2,4,3};
        int []arr2= {6,1,2,4,3};
        System.out.println(Arrays.compare(arr1, arr2));

    }
```

```
<terminated> Compare1 [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe  (13-Sep-2023, 10:27:26 pm – 10:27:
-1
```

7. mismatch(array1,array2): Finds and returns the index of the first unmatched element between the two specified arrays.





Returns -1 if arrays are equal.