ARRAYS SORT()

The Arrays.sort() method in Java is used to sort the elements of an array in ascending order. It's part of the java.util.Arrays class, so you'll need to import this class to use it.

ARRAYS BINARY()

The Arrays.binarySearch() method is used to efficiently search for a specific element within a sorted array. It follows the binary search algorithm, which repeatedly divides the search interval in half. If the value of the search key is less than the middle element, the search continues in the left half. If the search key is greater than the middle element, the search continues in the right half. This process continues until the key is found or the interval is empty.

Important: Binary search only works correctly on sorted arrays. If you try to use it on an unsorted array, the results will be unpredictable.

ARRAYS EQUAL()

The Arrays.equals() method is used to check if two arrays are equal to each other. Two arrays are considered equal if they contain the same number of elements, and all corresponding elements in both arrays are equal.

Here's a Java code example demonstrating the use of Arrays.equals():

ARRAYS COMPARE

The Arrays.compare() method is used to lexicographically compare two arrays. Lexicographical comparison means that the arrays are compared element by element until a difference is found, or one array runs out of elements before the other.

The result of Arrays.compare(array1, array2) is:

A negative integer if array1 is lexicographically less than array2.

Zero if array1 is lexicographically equal to array2.

A positive integer if array1 is lexicographically greater than array2

ARRAYS FILLINGS()

The Arrays class provides several fill() methods that allow you to populate an array with a specific value. There are overloaded versions of fill() to work with different primitive data types and also versions that allow you to fill a specific range within an array

ARRAYS COPY OF

The Arrays class provides several copyOf() methods that allow you to create a new array that is a copy of an existing array. You can also specify the new length of the copied array, which can be either longer or shorter than the original.

ARRAYS TO STRING()

The toString() method in the Arrays class provides a convenient way to get a string representation of the contents of a single-dimensional array. This is extremely useful for printing arrays or for logging purposes, as it formats the array elements in a readable way (enclosed in square brackets [] and separated by commas and spaces).