

JAVA.UTIL.COLLECTIONS.BINARYSEARCH METHOD

http://www.tutorialspoint.com/java/util/collections_binarysearch_comparable.htm

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Description

The **binarySearch***List* < ?*extends Comparable* < ?*superT* >> , *T* method is used to search the specified list for the specified object using the binary search algorithm.

Declaration

Following is the declaration for **java.util.Collections.binarySearch** method.

```
public static <T> int binarySearch(List<? extends Comparable<? super T>> list, T key)
```

Parameters

- **list** -- This is the list to be searched.
- **key** -- This is the key to be searched for.

Return Value

The method call returns the index of the search key, if it is contained in the list.

Exception

- **ClassCastException** -- This is thrown if the list contains elements that are not mutually comparable.

Example

The following example shows the usage of **java.util.Collections.binarySearch**

```
package com.tutorialspoint;

import java.util.*;

public class CollectionsDemo {
    public static void main(String args[]) {
        // create arraylist
        ArrayList<String> arlst=new ArrayList<String>();

        // populate the list
        arlst.add("TP");
        arlst.add("PROVIDES");
        arlst.add("QUALITY");
        arlst.add("TUTORIALS");

        // search the list for key 'QUALITY'
        int index=Collections.binarySearch(arlst, "QUALITY");

        System.out.println("'QUALITY' is available at index: "+index);
    }
}
```

Let us compile and run the above program, this will produce the following result.

```
'QUALITY' is available at index: 2
```

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