

The SortedList class represents a collection of key-and-value pairs that are sorted by the keys and are accessible by key and by index.

A sorted list is a combination of an array and a hashtable. It contains a list of items that can be accessed using a key or an index. If you access items using an index, it is an ArrayList, and if you access items using a key, it is a Hashtable. The collection of items is always sorted by the key value.

Properties and Methods of the SortedList Class

The following table lists some of the commonly used **properties** of the **SortedList** class:

Property	Description
Capacity	Gets or sets the capacity of the SortedList.
Count	Gets the number of elements contained in the SortedList.
IsFixedSize	Gets a value indicating whether the SortedList has a fixed size.
IsReadOnly	Gets a value indicating whether the SortedList is read-only.
Item	Gets and sets the value associated with a specific key in the SortedList.
Keys	Gets the keys in the SortedList.
Values	Gets the values in the SortedList.

The following table lists some of the commonly used **methods** of the **SortedList** class:

S.N	Method Name & Purpose
1	Public Overridable Sub Add <i>keyAsObject, valueAsObject</i> Adds an element with the specified key and value into the SortedList.
2	Public Overridable Sub Clear Removes all elements from the SortedList.
3	Public Overridable Function ContainsKey <i>keyAsObject</i> As Boolean Determines whether the SortedList contains a specific key.
4	Public Overridable Function ContainsValue <i>valueAsObject</i> As Boolean Determines whether the SortedList contains a specific value.
5	Public Overridable Function GetByIndex <i>indexAsInteger</i> As Object

Gets the value at the specified index of the SortedList.

6

Public Overridable Function GetKey *indexAsInteger* As Object

Gets the key at the specified index of the SortedList.

7

Public Overridable Function GetKeyList As IList

Gets the keys in the SortedList.

8

Public Overridable Function GetValueList As IList

Gets the values in the SortedList.

9

Public Overridable Function IndexOfKey *keyAsObject* As Integer

Returns the zero-based index of the specified key in the SortedList.

10

Public Overridable Function IndexOfValue *valueAsObject* As Integer

Returns the zero-based index of the first occurrence of the specified value in the SortedList.

11

Public Overridable Sub Remove *keyAsObject*

Removes the element with the specified key from the SortedList.

12

Public Overridable Sub RemoveAt *indexAsInteger*

Removes the element at the specified index of SortedList.

13

Public Overridable Sub TrimToSize

Sets the capacity to the actual number of elements in the SortedList.

Example:

The following example demonstrates the concept:

```
Module collections
    Sub Main()
        Dim sl As SortedList = New SortedList()
        sl.Add("001", "Zara Ali")
        sl.Add("002", "Abida Rehman")
        sl.Add("003", "Joe Holzner")
        sl.Add("004", "Mausam Benazir Nur")
        sl.Add("005", "M. Amlan")
        sl.Add("006", "M. Arif")
        sl.Add("007", "Ritesh Saikia")
        If (sl.ContainsValue("Nuha Ali")) Then
            Console.WriteLine("This student name is already in the list")
        End If
    End Sub
End Module
```

```
Else
    sl.Add("008", "Nuha Ali")
End If
' Get a collection of the keys.
Dim key As ICollection = sl.Keys
Dim k As String
For Each k In key
    Console.WriteLine(" {0} : {1}", k, sl(k))
Next k
Console.ReadKey()
End Sub
End Module
```

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

```
001: Zara Ali
002: Abida Rehman
003: Joe Holzner
004: Mausam Banazir Nur
005: M. Amlan
006: M. Arif
007: Ritesh Saikia
008: Nuha Ali
```

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