

CustomList<T> - Operator Overloading

Definition

Removes from first list the same matching occurrence happens to be in the second list

Syntax:

```
CustomList<int> result = list1 - list2;
```

Parameters

CustomList has to be the same type.

From CustomList<int> we can only use - operator with another CustomList<int>. And it would give an error trying to use different type: CustomList<int> and CustomList<string>;

Return Type

CustomList<T>

Return type is new CustomList<T> where the results have to stored

Implements

Implements with - operator;

Examples

The following example demonstrates how to use CustomList<T> - operator:

```
// First CustomList has a four values stored in it:
CustomList<int> list1 = new CustomList<int> { 1, 2, 3, 4 };

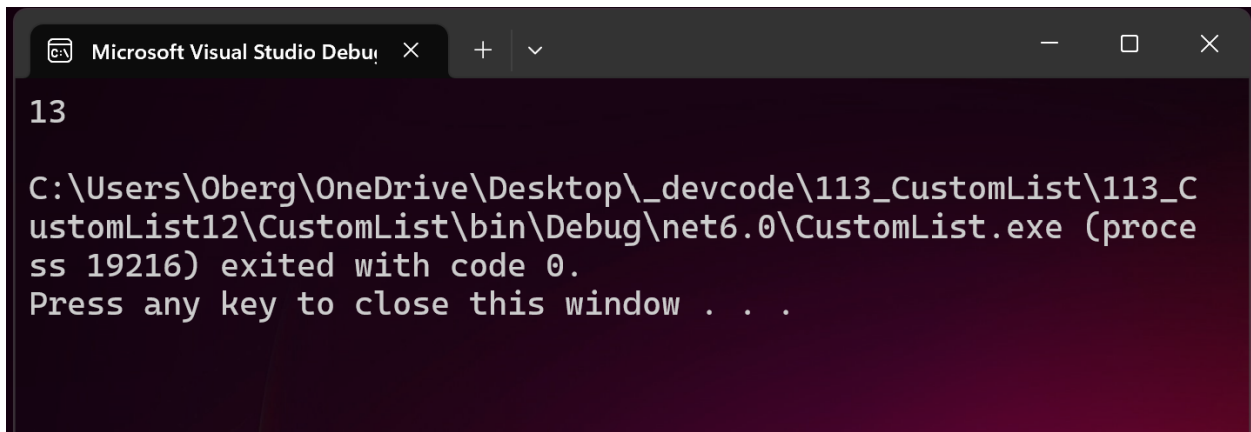
// Second CustomList has 2 values stores in it
CustomList<int> list2 = new CustomList<int> { 2, 4 };

// A new CustimList has to be created where we will be storing the results
CustomList<int> result;

// Now list one is looking for any matching occurances in the second list
// We can see its number 2 and 4
// - operator removes those items from the list
// The results are stored in the new CustomList<int> result
result = list1 - list2;

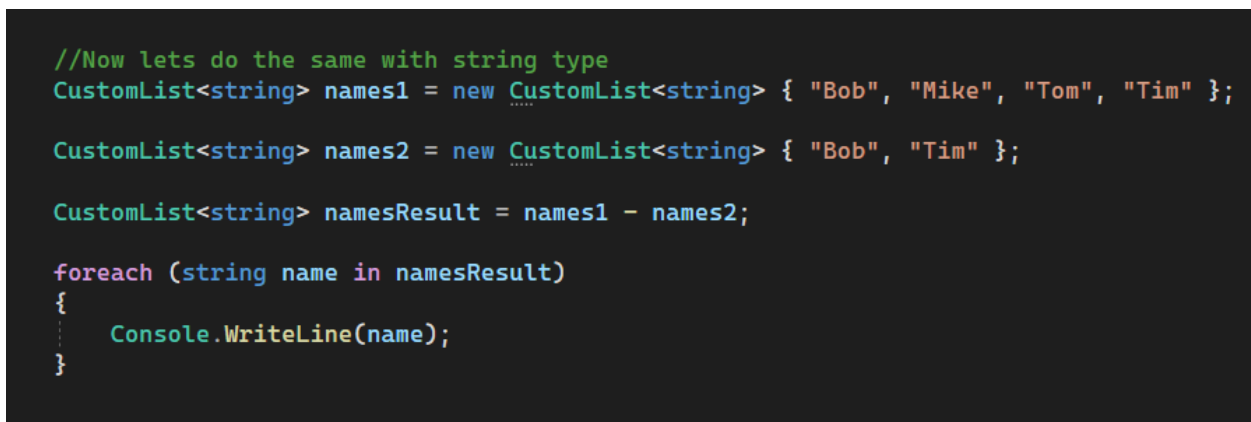
//Displaying the results
Console.WriteLine(result.ToString());
```

As you can see integers 2 and 4 were removed from the list and only left 1 and 3;



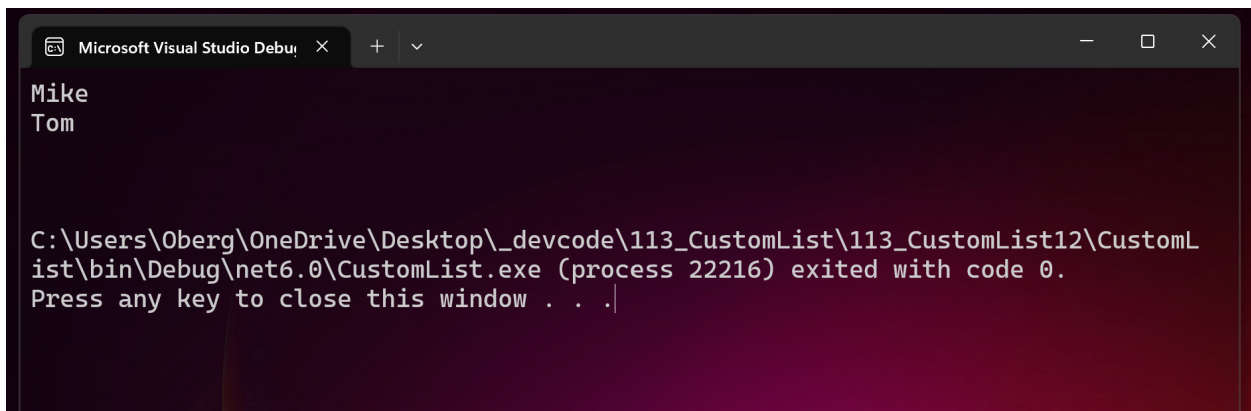
```
13
C:\Users\Oberg\OneDrive\Desktop\_devcode\113_CustomList\113_CustomList12\CustomList\bin\Debug\net6.0\CustomList.exe (process 19216) exited with code 0.
Press any key to close this window . . .
```

Now let's do the same with string type



```
//Now lets do the same with string type
CustomList<string> names1 = new CustomList<string> { "Bob", "Mike", "Tom", "Tim" };
CustomList<string> names2 = new CustomList<string> { "Bob", "Tim" };
CustomList<string> namesResult = names1 - names2;
foreach (string name in namesResult)
{
    Console.WriteLine(name);
}
```


As you can see all of the matching occurrences were deleted and the result is Mike and Tom



```
Mike
Tom
C:\Users\Oberg\OneDrive\Desktop\_devcode\113_CustomList\113_CustomList12\CustomList\bin\Debug\net6.0\CustomList.exe (process 22216) exited with code 0.
Press any key to close this window . . .
```

-operator can only work with the same value type in the following example we would get an error:

```
CustomList<int> numbers1 = new CustomList<int> { 1, 2, 3, 4 };  
CustomList<string> names1 = new CustomList<string> { "Bob", "Mike", "Tom", "Tim" };  
  
CustomList<int> resutl = numbers1 - names1;
```

 (local variable) **CustomList<int>** numbers1

'numbers1' is not null here.

CS0019: Operator '-' cannot be applied to operands of type 'CustomList<int>' and 'CustomList<string>'

Show potential fixes (Alt+Enter or Ctrl+.)