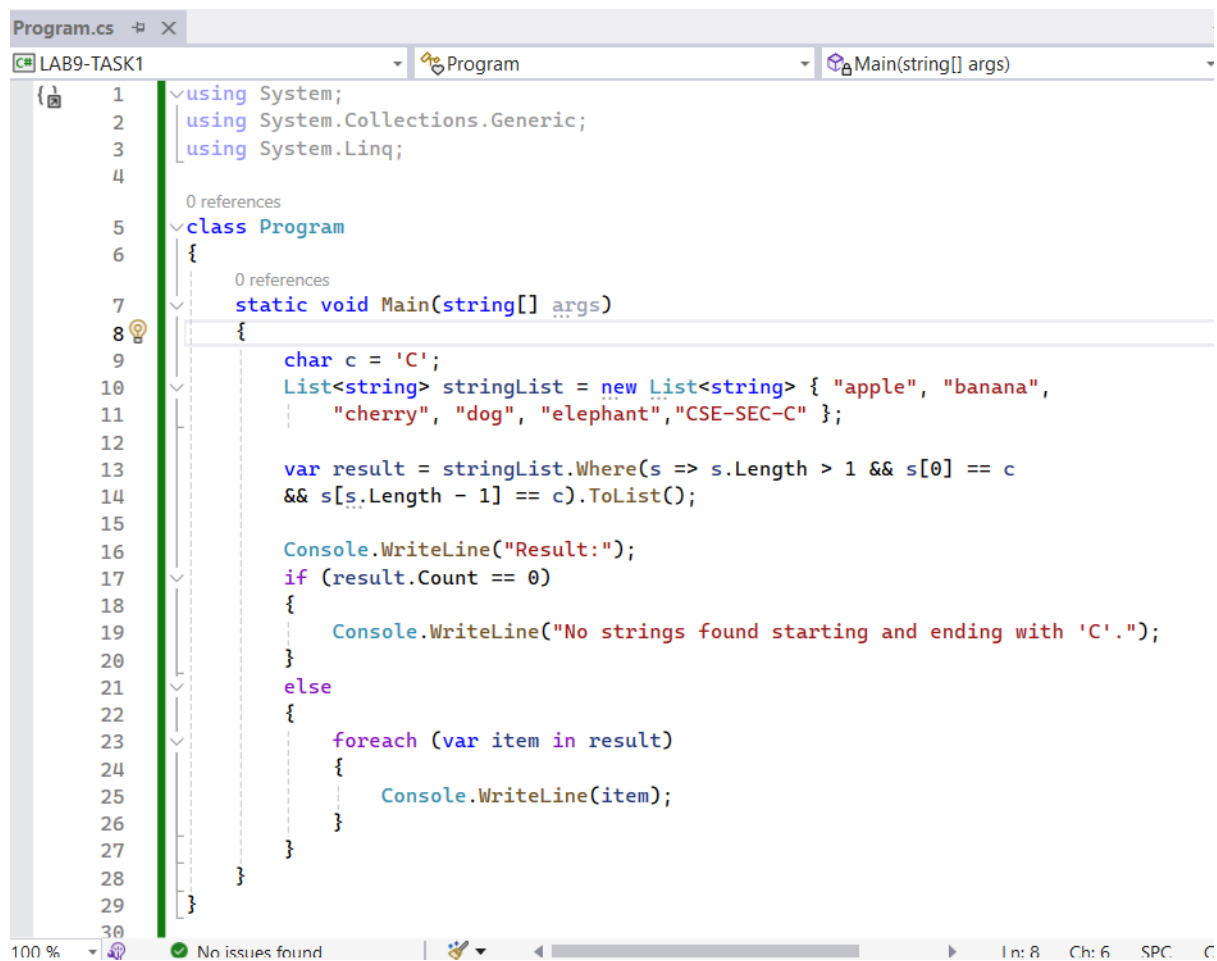
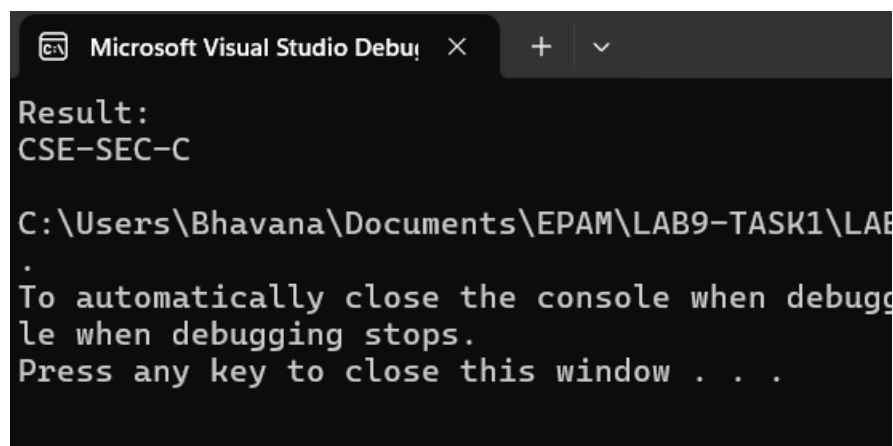


EPAM- LAB9

TASK 1: The character C and a sequence of non-empty strings stringList are given. Get a new sequence of strings with more than one character from the stringList, starting and ending with C.



```
Program.cs
1 using System;
2 using System.Collections.Generic;
3 using System.Linq;
4
5 class Program
6 {
7     static void Main(string[] args)
8     {
9         char c = 'C';
10        List<string> stringList = new List<string> { "apple", "banana",
11            "cherry", "dog", "elephant", "CSE-SEC-C" };
12
13        var result = stringList.Where(s => s.Length > 1 && s[0] == c
14            && s[s.Length - 1] == c).ToList();
15
16        Console.WriteLine("Result:");
17        if (result.Count == 0)
18        {
19            Console.WriteLine("No strings found starting and ending with 'C'.");
20        }
21        else
22        {
23            foreach (var item in result)
24            {
25                Console.WriteLine(item);
26            }
27        }
28    }
29 }
30
```

Output:

```
Microsoft Visual Studio Debug Console
Result:
CSE-SEC-C
C:\Users\Bhavana\Documents\EPAM\LAB9-TASK1\LAB9-TASK1\Program.cs
To automatically close the console when debugging stops,
press any key to close this window . . .
```

TASK 2: A sequence of non-empty strings **stringList** is given. Get a sequence of ascending sorted integer values equal to the lengths of the strings included in the **stringList** sequence

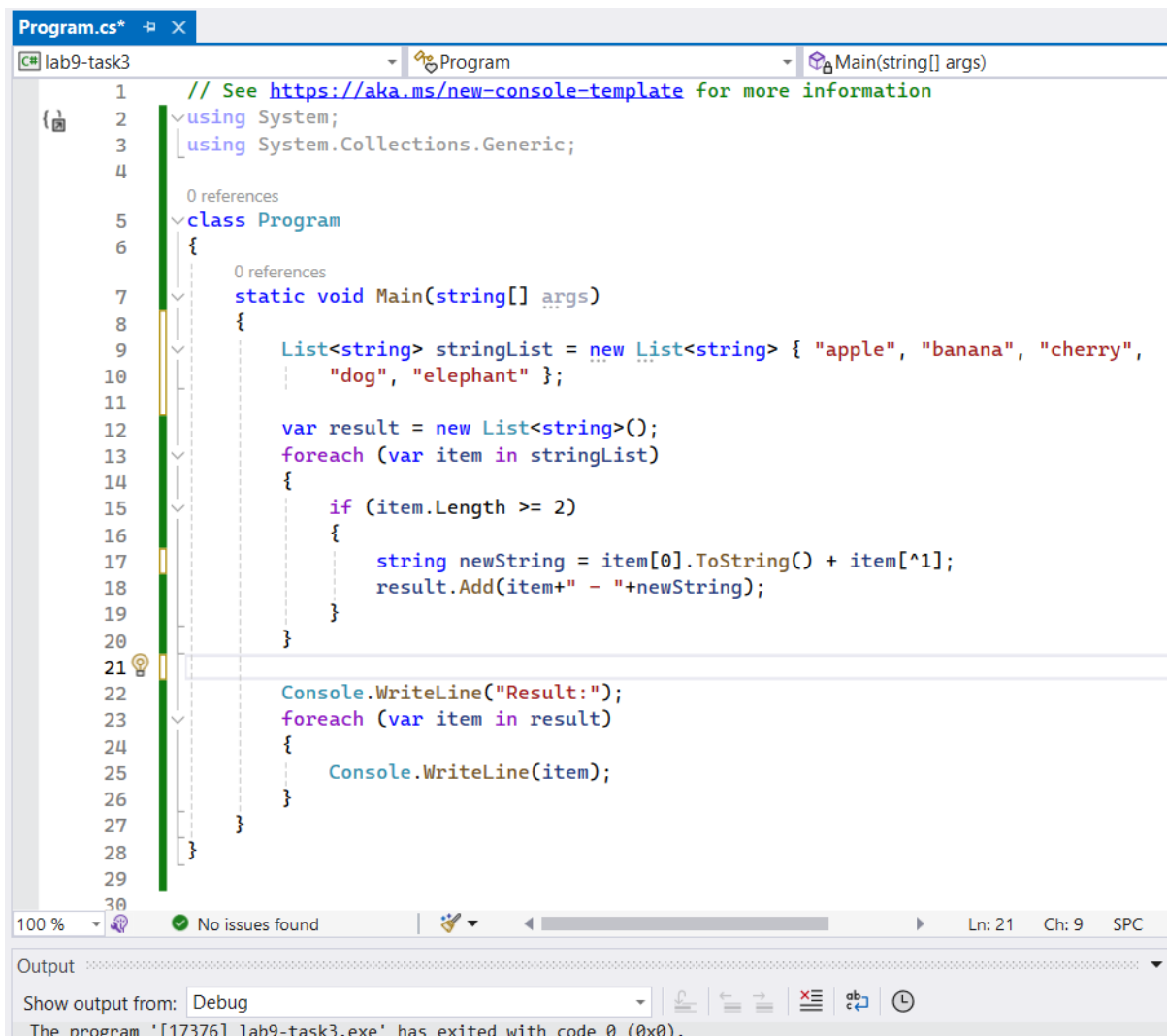
```
Program.cs* X
lab9-task2 Program Main(string[] args)
1 // See https://aka.ms/new-console-template for more information
2 using System;
3 using System.Collections.Generic;
4 using System.Linq;
5
6 class Program
7 {
8     static void Main(string[] args)
9     {
10         List<string> stringList = new List<string> { "apple", "banana", "cherry",
11             "dog", "elephant" };
12
13         var result = stringList.OrderBy(s => s.Length).ToList();
14
15         Console.WriteLine("Result:");
16         foreach (var item in result)
17         {
18             Console.WriteLine($"{item}, Length: {item.Length}");
19         }
20     }
21 }
22
```

Output:

```
Microsoft Visual Studio Debug Console
Result:
dog, Length: 3
apple, Length: 5
banana, Length: 6
cherry, Length: 6
elephant, Length: 8

C:\Users\Bhavana\Documents\EPAM\lab9-task2\lab9-task2\
.
To automatically close the console when debugging stops
le when debugging stops.
Press any key to close this window . . .|
```

TASK 3: A sequence of non-empty strings `stringList` is given. Get a new sequence of strings, where each string consists of the first and last characters of the corresponding string in the `stringList` sequence.



```
1 // See https://aka.ms/new-console-template for more information
2 using System;
3 using System.Collections.Generic;
4
5 class Program
6 {
7     static void Main(string[] args)
8     {
9         List<string> stringList = new List<string> { "apple", "banana", "cherry",
10             "dog", "elephant" };
11
12         var result = new List<string>();
13         foreach (var item in stringList)
14         {
15             if (item.Length >= 2)
16             {
17                 string newString = item[0].ToString() + item[^1];
18                 result.Add(item + " - " + newString);
19             }
20         }
21
22         Console.WriteLine("Result:");
23         foreach (var item in result)
24         {
25             Console.WriteLine(item);
26         }
27     }
28 }
29
30
```

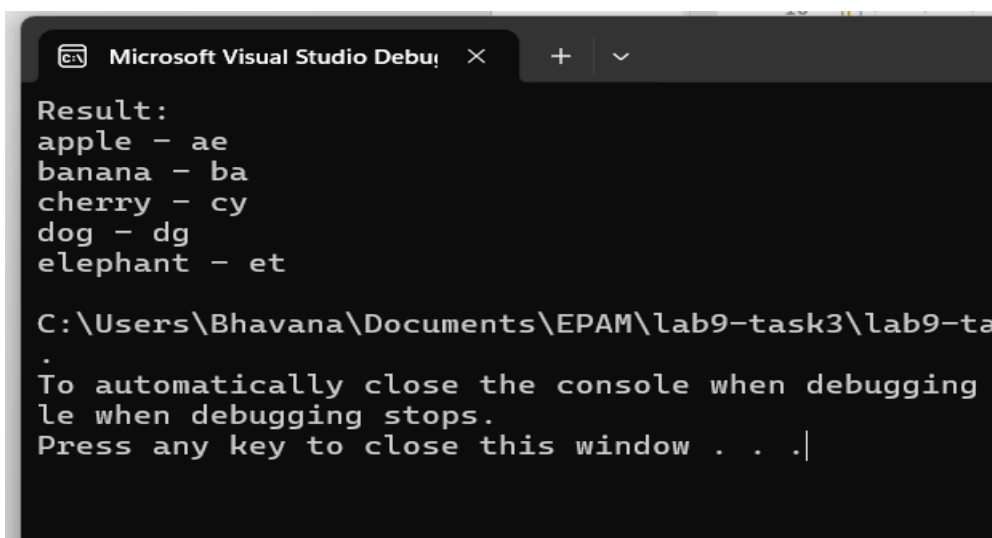
100 % No issues found Ln: 21 Ch: 9 SPC

Output

Show output from: Debug

The program '[17376] lab9-task3.exe' has exited with code 0 (0x0).

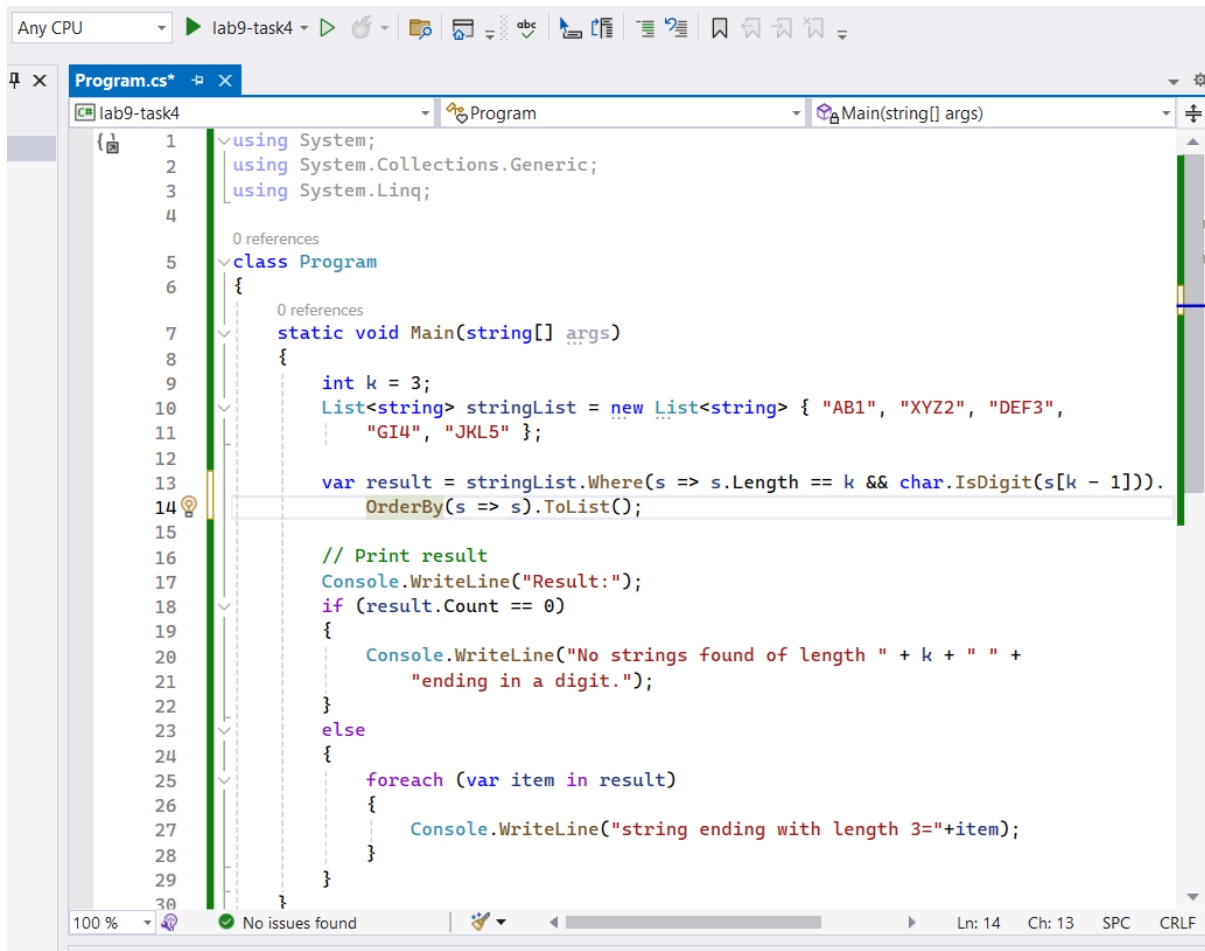
Output:



```
Microsoft Visual Studio Debug Console
Result:
apple - ae
banana - ba
cherry - cy
dog - dg
elephant - et

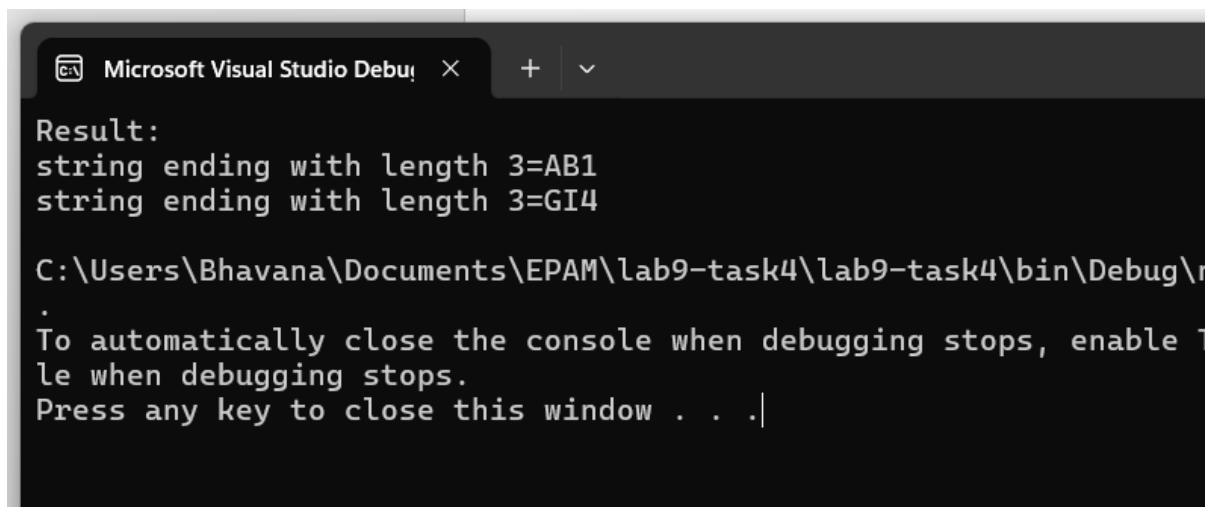
C:\Users\Bhavana\Documents\EPAM\lab9-task3\lab9-task3\Program.cs
To automatically close the console when debugging stops,
press any key to close this window . . .
```

TASK 4: A positive integer K and a sequence of non-empty strings stringList are given. Strings of the sequence contain only numbers and capital letters of the Latin alphabet. Get from stringList all strings of length K ending in a digit and sort them in ascending order.



```
1 using System;
2 using System.Collections.Generic;
3 using System.Linq;
4
5 class Program
6 {
7     static void Main(string[] args)
8     {
9         int k = 3;
10        List<string> stringList = new List<string> { "AB1", "XYZ2", "DEF3",
11            "GI4", "JKL5" };
12
13        var result = stringList.Where(s => s.Length == k && char.IsDigit(s[k - 1])).
14            OrderBy(s => s).ToList();
15
16        // Print result
17        Console.WriteLine("Result:");
18        if (result.Count == 0)
19        {
20            Console.WriteLine("No strings found of length " + k + " " +
21                "ending in a digit.");
22        }
23        else
24        {
25            foreach (var item in result)
26            {
27                Console.WriteLine("string ending with length 3="+item);
28            }
29        }
30    }
31 }
```

Output:



```
Microsoft Visual Studio Debug Console
Result:
string ending with length 3=AB1
string ending with length 3=GI4

C:\Users\Bhavana\Documents\EPAM\lab9-task4\lab9-task4\bin\Debug\net6.0\lab9-task4.exe
To automatically close the console when debugging stops, enable Tools->Options->
Debug->Automatically close console when debugging stops.
Press any key to close this window . . .
```

TASK 5: A sequence of positive integer values integerList is given. Get sequence of string representations of only odd integerList values and sort in ascending order.

```
Program.cs*  -  x
lab9-task5  Program  Main(string[] args)
1  // See https://aka.ms/new-console-template for more information
2  using System;
3  using System.Collections.Generic;
4  using System.Linq;
5
6  class Program
7  {
8      static void Main(string[] args)
9      {
10         List<int> integerList = new List<int> { 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 };
11
12         var result = integerList.Where(x => x % 2 != 0)
13                                 .OrderBy(x => x)
14                                 .Select(x => x.ToString())
15                                 .ToList();
16
17         Console.WriteLine("Result:");
18         foreach (var item in result)
19         {
20             Console.WriteLine("odd integers="+item);
21         }
22     }
23 }
24
25
```

OUTPUT:

```
Microsoft Visual Studio Debug  +  v
Result:
odd integers=1
odd integers=3
odd integers=5
odd integers=7
odd integers=9

C:\Users\Bhavana\Documents\EPAM\lab9-task5\lab9-task5
To automatically close the console when debugging stops.
Press any key to close this window . . .|
```