.NET PROGRAMMING LAB 9

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Section: S-13

At the Low level, you need to solve the following five tasks:

Task1: The character C and a sequence of non-empty strings stringList are given. Get a new sequence with more than one character from the stringList, starting and ending with C.

Task2: A sequence of non-empty strings stringList is given. Get a sequence of ascending sorted integer values equal to the lengths of strings included in the stringList sequence.

Task3: 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.

Task4: 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 lating alphabet. Get from stringList all strings of length K ending in a digit and sort them in ascending order.

Task5: A sequence of positive integers integerList is given. Get sequence of string representation of only odd integerList values and sort in ascending order.

Code:

Task1:

```
using System;

using System.Collections.Generic;

using System.Linq;


class Program
```

```
{
   static void Main(string[] args)
   {
      char C = 'a';
      string[] stringList = { "hello", "world", "dot", "net", "open", "ai" };

      var newStrings = stringList.Where(s => s.Length > 1 && s.First() == C && s.Last() == C);

      foreach (var s in newStrings)
      {
         Console.WriteLine(s);
      }

      Console.ReadKey();
   }
}
```

Task2:

```
using System;
using System.Collections.Generic;
using System.Linq;

class Program
{
   static void Main(string[] args)
   {
```

```
        string[] stringList = { "hello", "world", "dot", "net", "open", "ai" };

        var stringLengths = stringList.Select(s => s.Length).OrderBy(i => i);

        foreach (var length in stringLengths)
        {
            Console.WriteLine(length);
        }

        Console.ReadKey();
    }
}
```

Task3:

```
using System;
using System.Collections.Generic;
using System.Linq;

class Program
{
    static void Main(string[] args)
    {
        string[] stringList = { "hello", "world", "dot", "net", "open", "ai" };

        var newStrings = stringList.Select(s => s.First().ToString() +
s.Last().ToString());
```

```
        foreach (var s in newStrings)
        {
            Console.WriteLine(s);
        }

        Console.ReadKey();
    }
}
```

Task4:

```
using System;
using System.Collections.Generic;
using System.Linq;

class Program
{
    static void Main(string[] args)
    {
        int K = 3;
        string[] stringList = { "ABC1", "DEF2", "GHI3", "JKL4", "MNO5", "PQR6",
"STU7", "VWX8", "YZ9" };

        var filteredStrings = stringList.Where(s => s.Length == K &&
char.IsDigit(s[K - 1]))
                                        .OrderBy(s => s);

        foreach (var s in filteredStrings)
        {
            Console.WriteLine(s);
        }

        Console.ReadKey();
    }
}
```

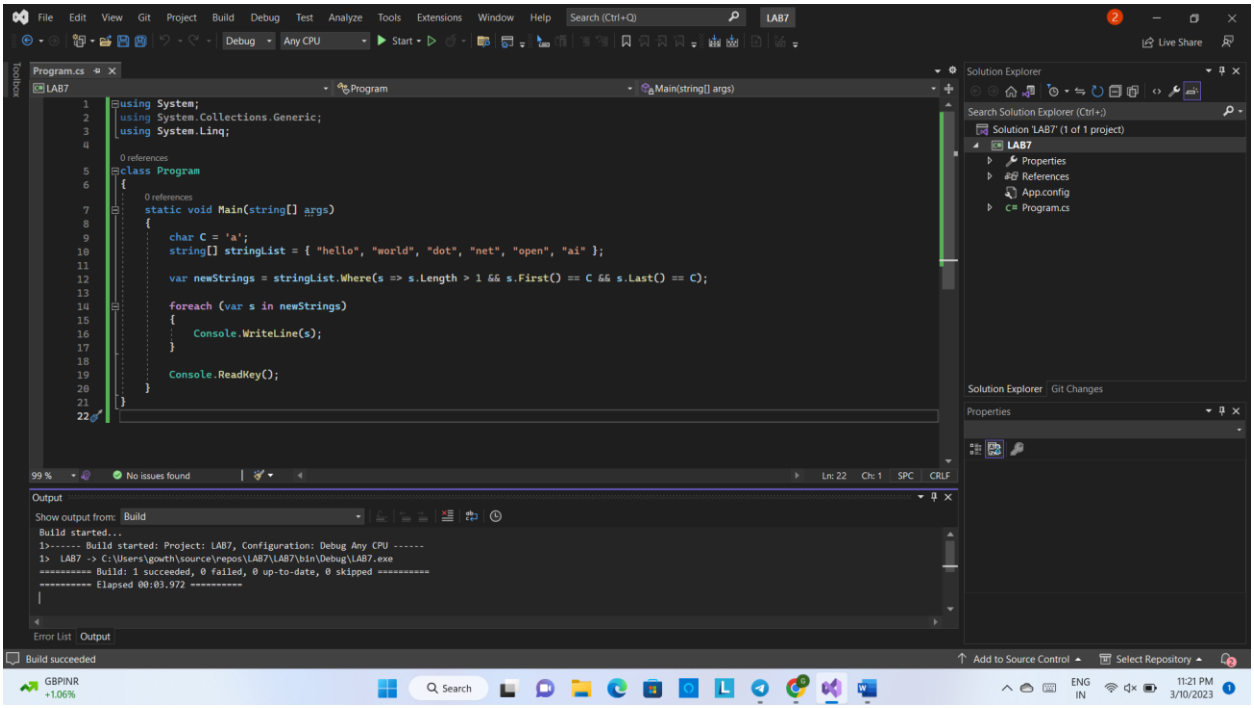
Task5:

```
using System;
using System.Collections.Generic;
using System.Linq;

class Program
{
    static void Main(string[] args)
    {
        int[] integerList = { 2, 5, 1, 8, 7, 3 };
```

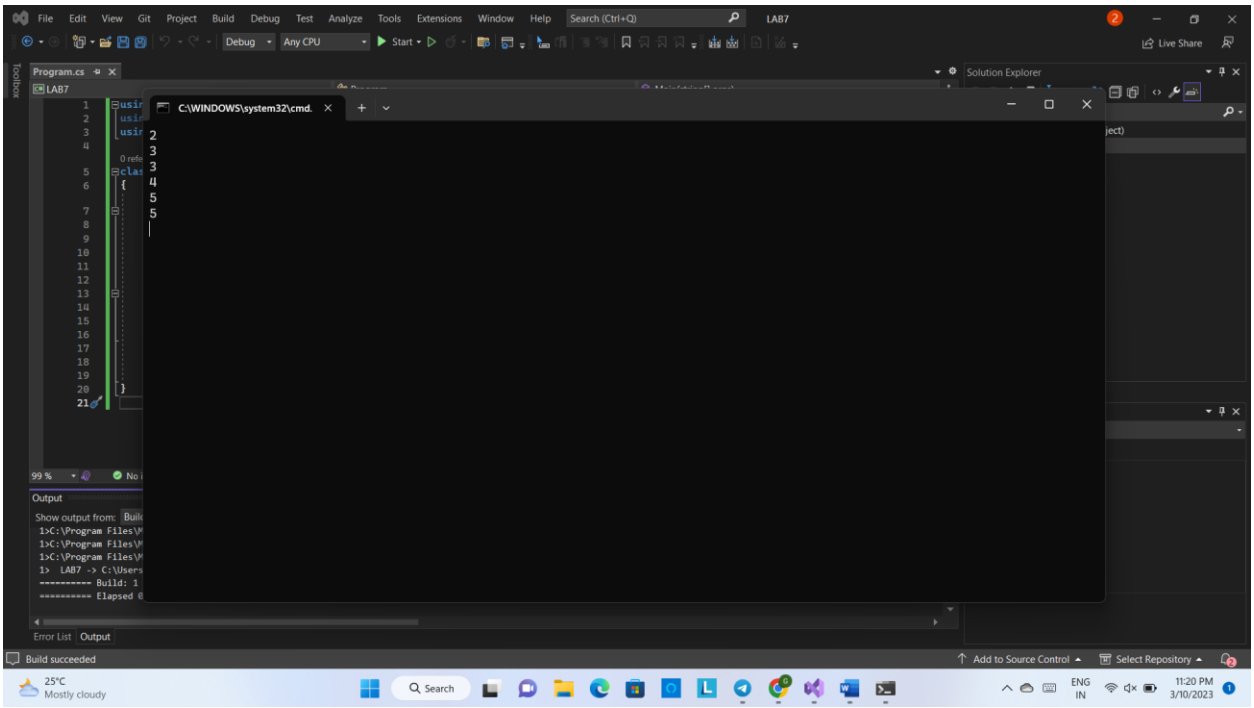
```
        var oddStrings = integerList.Where(i => i % 2 != 0)
                                    .Select(i => i.ToString())
                                    .OrderBy(s => s);

        foreach (var s in oddStrings)
        {
            Console.WriteLine(s);
        }

        Console.ReadKey();
    }
}
```

Output:

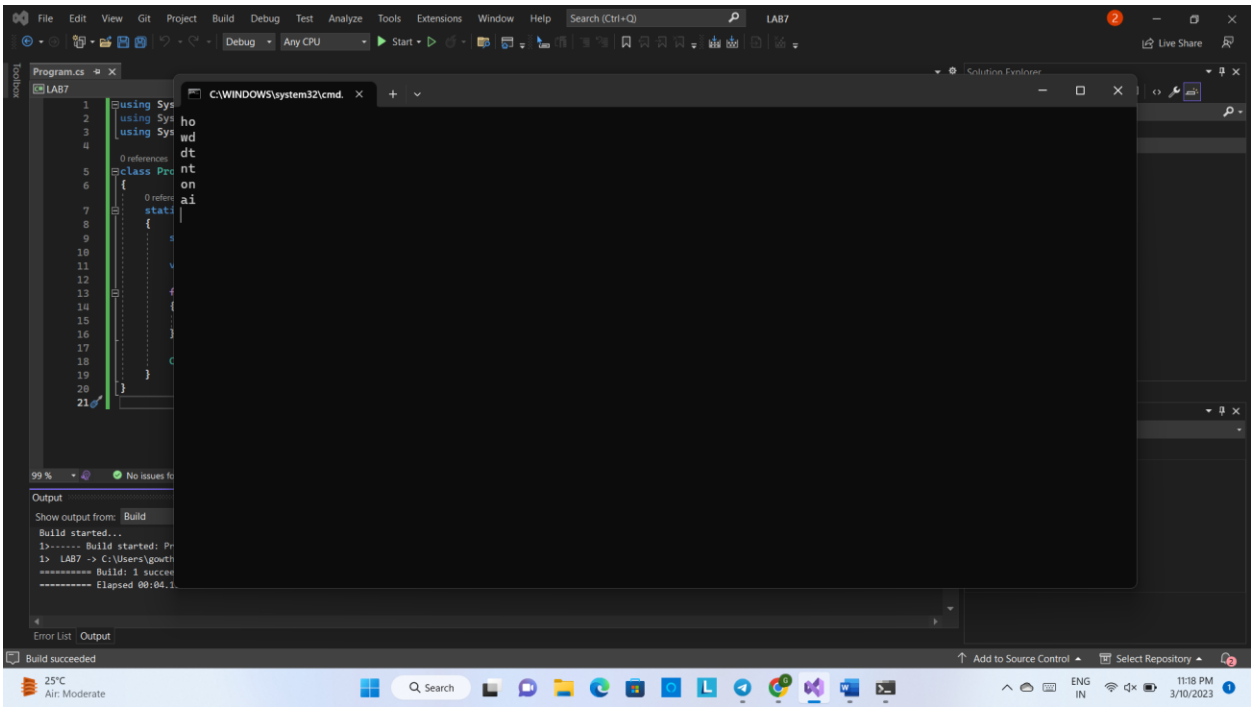
Task1:


using System;
using System.Collections.Generic;
using System.Linq;
class Program
{
static void Main(string[] args)
{
char C = 'a';
string[] stringList = { "hello", "world", "dot", "net", "open", "ai" };
var newStrings = stringList.Where(s => s.Length > 1 && s.First() == C && s.Last() == C);
foreach (var s in newStrings)
{
Console.WriteLine(s);
}
Console.ReadKey();
}
}
Build succeeded

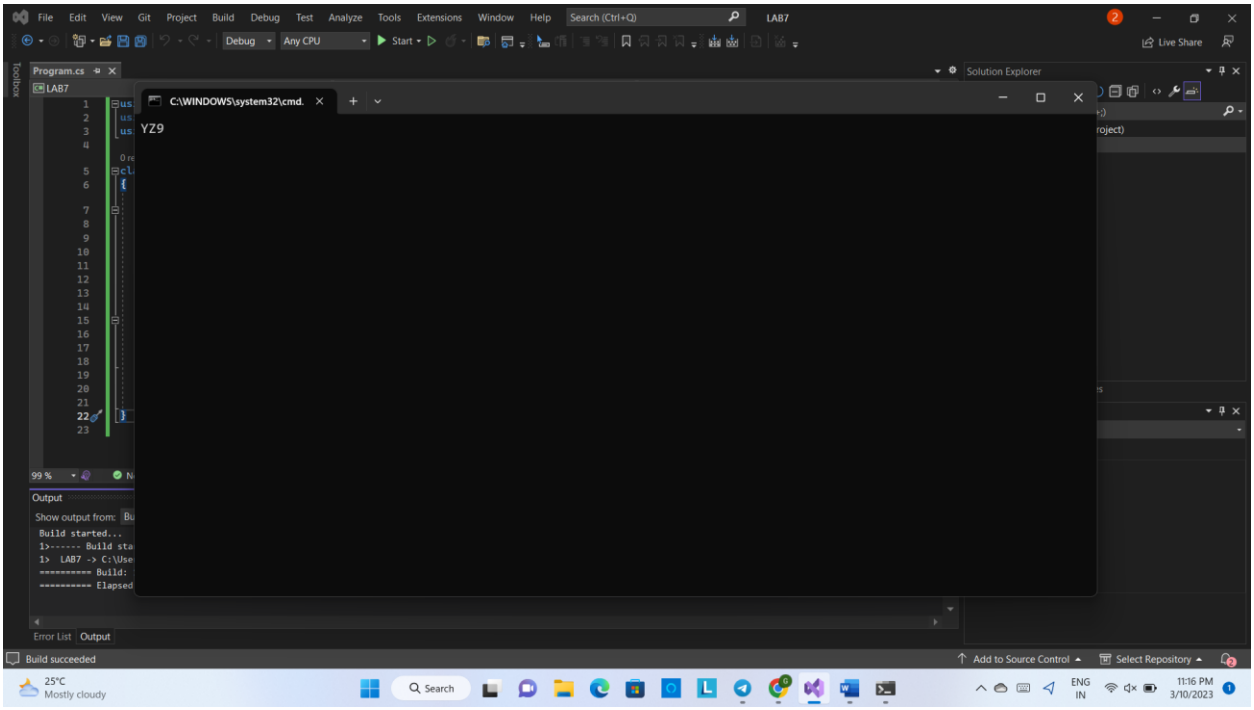
Task2:


C:\WINDOWS\system32\cmd.
2
3
3
4
5
5
Build succeeded

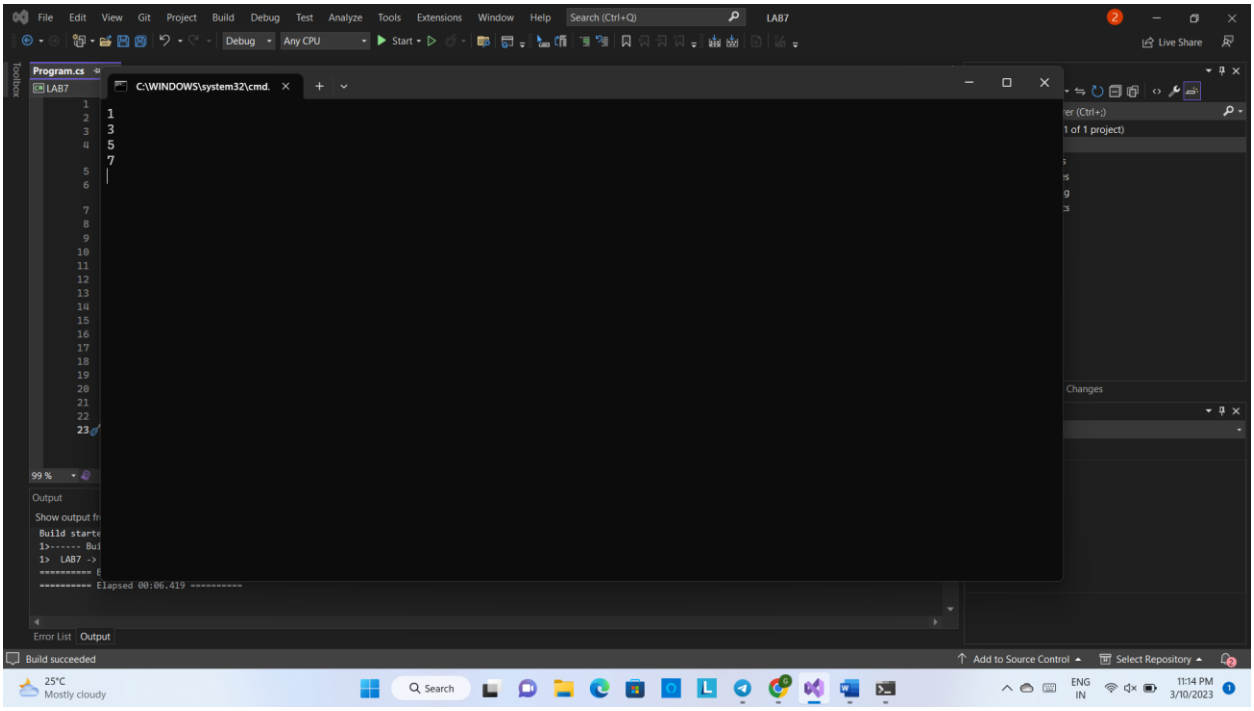
Task3:


C:\WINDOWS\system32\cmd.
Build succeeded

Task4:


C:\WINDOWS\system32\cmd.
YZ9
Build succeeded

Task5:


File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help
Search (Ctrl+Q)
LAB7
Debug
Any CPU
Start
Live Share
Program.cs
LAB7
C:\WINDOWS\system32\cmd.
1
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7
Output
Build succeeded
Error List
Output
Add to Source Control
Select Repository
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Mostly cloudy
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11:14 PM
3/10/2023