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email: Siddiqas@mail.uc.edu
Assignment Title: Assignment final
Due Date: 12/10/2024
Course: IS 3050 -001
Semester/Year: Fall 2024
Brief Description: This project
Citations: W3Schools

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="Default.aspx.cs"
Inherits="WebApplication2._Default" %>
```

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8" />
  <meta name="viewport" content="width=device-width, initial-scale=1.0" />
  <title>Basic Calculator</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      padding: 20px;
    }
    .container {
      max-width: 600px;
      margin: 0 auto;
      text-align: center;
    }
    input, button {
      margin: 10px;
      padding: 10px;
      font-size: 16px;
    }
    #result {
      font-size: 20px;
      font-weight: bold;
    }
  </style>
</head>
<body>
  <div class="container">
    <h1>Basic Calculator</h1>
    <form id="form1" runat="server">
```

```

<label for="expressionInput">Enter Expression:</label>
<input type="text" id="expressionInput" runat="server" placeholder="e.g. 3 + (2 - 5)" />
<br />

<asp:Button ID="CalculateButton" runat="server" Text="Calculate"
OnClick="CalculateButton_Click" />
</form>
<div id="result">
    <asp:Label ID="ResultLabel" runat="server" Text="Result: " />
</div>
</div>
</body>
</html>

```

Class:

```

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```

```

using System;
using System.Collections.Generic;

```

```

namespace WebApplication2
{
    public class Solution
    {
        public int Calculate(string s)
        {
            s = s.Replace(" ", "");

            Stack<int> stack = new Stack<int>();

            int currentNumber = 0;
            int result = 0;
            int sign = 1;

```

```

for (int i = 0; i < s.Length; i++)
{
    char ch = s[i];

    if (char.IsDigit(ch))
    {
        currentNumber = currentNumber * 10 + (ch - '0');
    }
    else if (ch == '+')
    {
        result += sign * currentNumber;
        currentNumber = 0;
        sign = 1;
    }
    else if (ch == '-')
    {
        result += sign * currentNumber;
        currentNumber = 0;
        sign = -1;
    }
    else if (ch == '(')
    {
        stack.Push(result);
        stack.Push(sign);

        result = 0;
        sign = 1;
    }
    else if (ch == ')')
    {
        result += sign * currentNumber;
        currentNumber = 0;

        result *= stack.Pop();
        result += stack.Pop();
    }
}
result += sign * currentNumber;

return result;
}
}
}

```

```
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```

```
using System;
```

```
namespace WebApplication2
```

```
{
    public partial class _Default : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {

        }

        protected void CalculateButton_Click(object sender, EventArgs e)
        {

            string expression = expressionInput.Value.Trim();

            var solution = new Solution();

            int result = solution.Calculate(expression);

            ResultLabel.Text = "Result: " + result.ToString();
        }
    }
}
```