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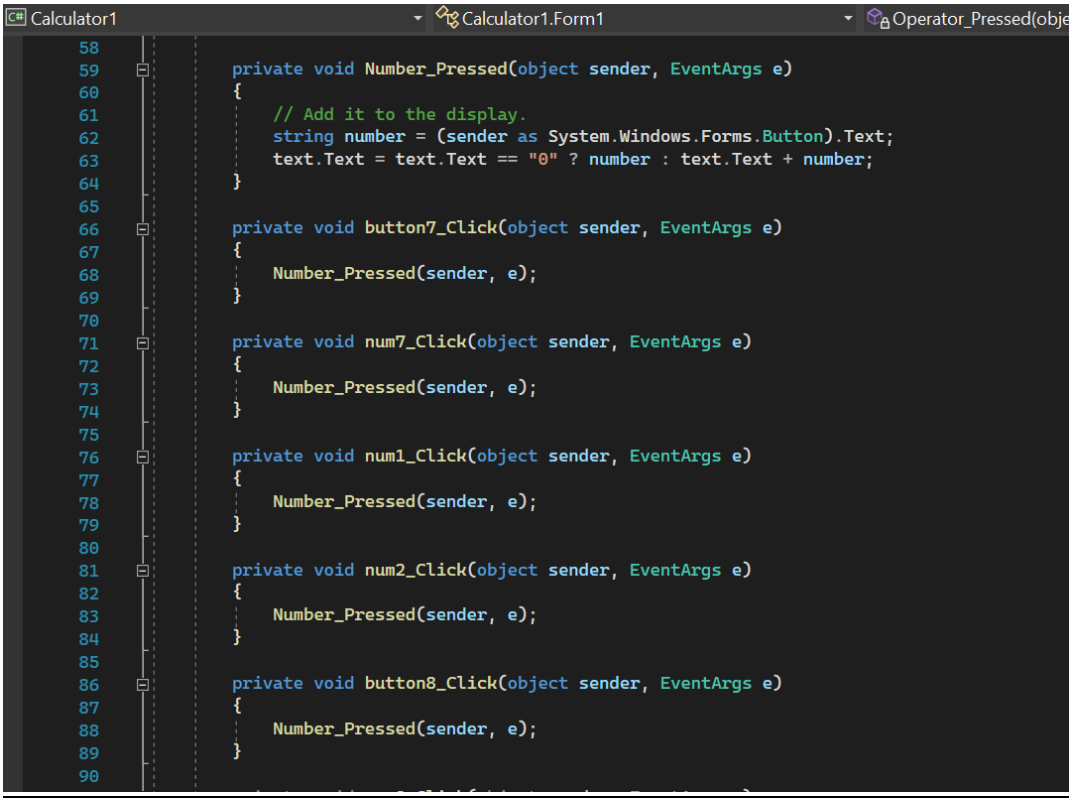
Reg #: SP20-BCS-044

Graded Task

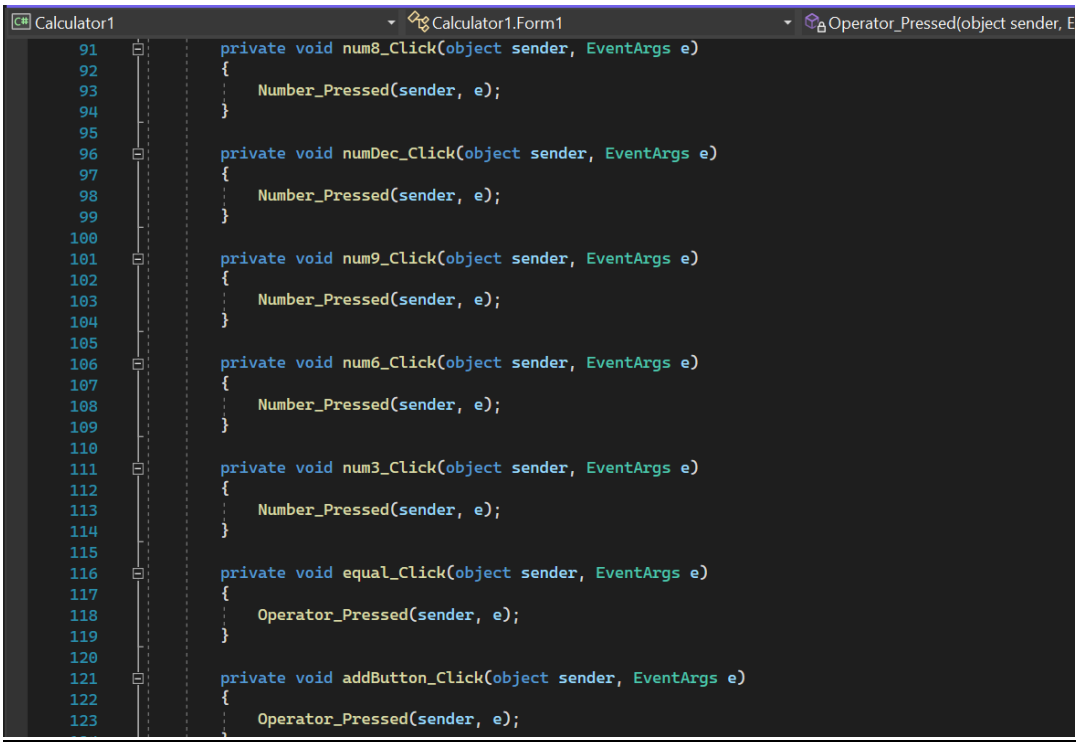
Task 1 (Calculator)

```
Calculator1 ▾ | Calculator1.Form1 ▾ | Operator_Pressed(object sender, EventA
1   using System;
2   using System.Collections.Generic;
3   using System.ComponentModel;
4   using System.Data;
5   using System.Drawing;
6   using System.Linq;
7   using System.Text;
8   using System.Threading.Tasks;
9   using System.Windows.Forms;
10  using static System.Windows.Forms.VisualStyles.VisualStyleElement;
11
12  namespace Calculator1
13  {
14      public partial class Form1 : Form
15      {
16          private double accumulator = 0;
17          private char lastOperation;
18
19          public Form1()
20          {
21              InitializeComponent();
22          }
23
24          private void Form1_Load(object sender, EventArgs e)
25          {
26
27          }
28
29          private void button1_Click(object sender, EventArgs e)
30          {
31              Operator_Pressed(sender,e);
32          }
33
```

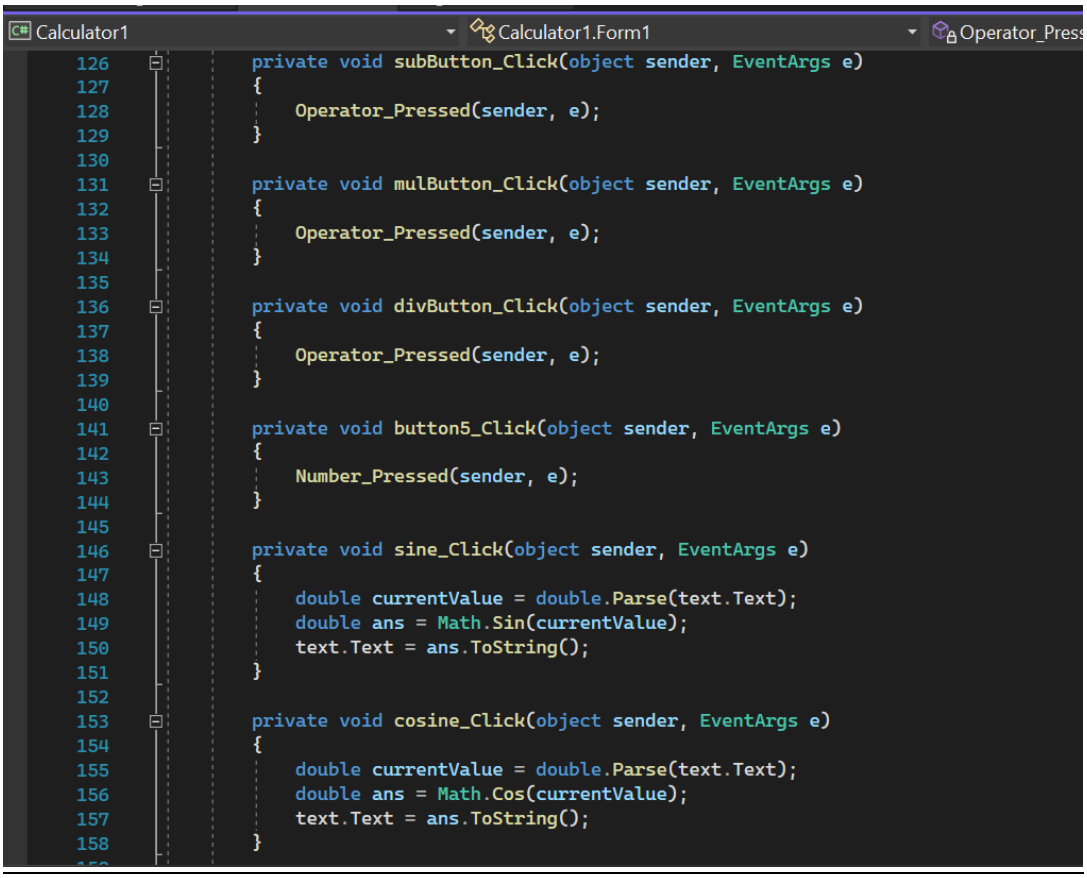
```
Calculator1 ▾ | Calculator1.Form1 ▾ | Operator_Pressed(object sender, Ev
34          private void Operator_Pressed(object sender, EventArgs e)
35          {
36              // An operator was pressed; perform the last operation and store the new operator.
37              char operation = (sender as System.Windows.Forms.Button).Text[0];
38              if (operation == 'C')
39              {
40                  accumulator = 0;
41              }
42              else
43              {
44                  double currentValue = double.Parse(text.Text);
45                  switch (lastOperation)
46                  {
47                      case '+': accumulator += currentValue; break;
48                      case '−': accumulator -= currentValue; break;
49                      case '×': accumulator *= currentValue; break;
50                      case '/': accumulator /= currentValue; break;
51                      default: accumulator = currentValue; break;
52                  }
53              }
54
55              lastOperation = operation;
56              text.Text = operation == '=' ? accumulator.ToString() : "0";
57          }
58
59          private void Number_Pressed(object sender, EventArgs e)
60          {
61              // Add it to the display.
62              string number = (sender as System.Windows.Forms.Button).Text;
63              text.Text = text.Text == "0" ? number : text.Text + number;
64          }
```




```
58
59          private void Number_Pressed(object sender, EventArgs e)
60          {
61              // Add it to the display.
62              string number = (sender as System.Windows.Forms.Button).Text;
63              text.Text = text.Text == "0" ? number : text.Text + number;
64          }
65
66          private void button7_Click(object sender, EventArgs e)
67          {
68              Number_Pressed(sender, e);
69          }
70
71          private void num7_Click(object sender, EventArgs e)
72          {
73              Number_Pressed(sender, e);
74          }
75
76          private void num1_Click(object sender, EventArgs e)
77          {
78              Number_Pressed(sender, e);
79          }
80
81          private void num2_Click(object sender, EventArgs e)
82          {
83              Number_Pressed(sender, e);
84          }
85
86          private void button8_Click(object sender, EventArgs e)
87          {
88              Number_Pressed(sender, e);
89          }
90
```



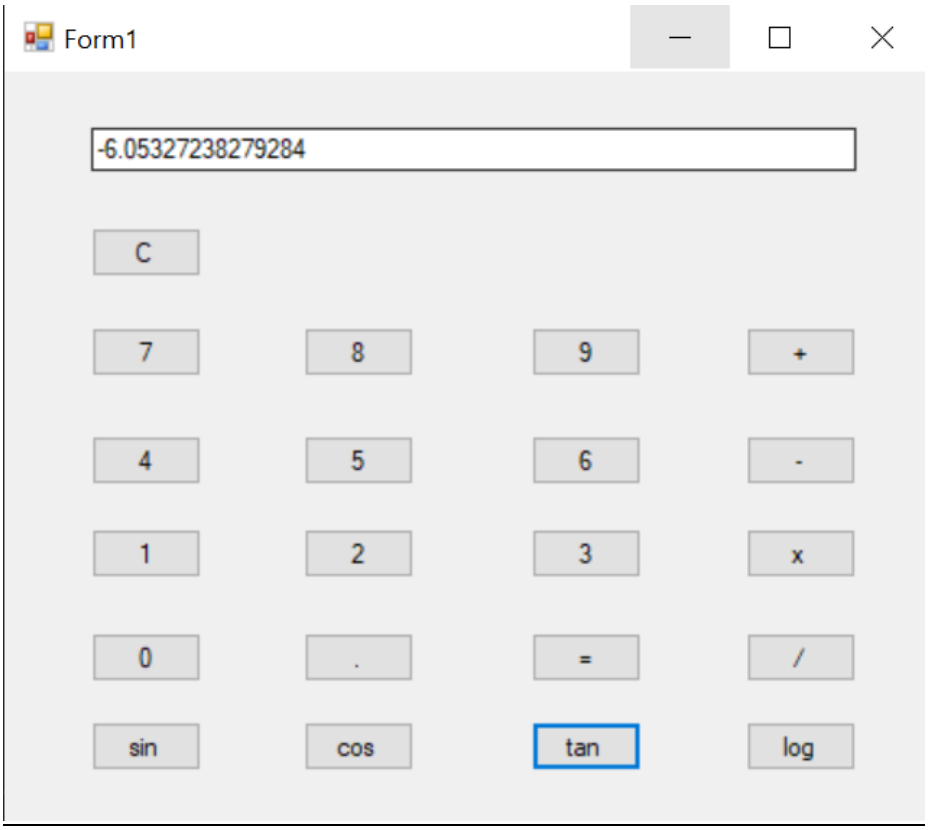

```
91          private void num8_Click(object sender, EventArgs e)
92          {
93              Number_Pressed(sender, e);
94          }
95
96          private void numDec_Click(object sender, EventArgs e)
97          {
98              Number_Pressed(sender, e);
99          }
100
101         private void num9_Click(object sender, EventArgs e)
102         {
103             Number_Pressed(sender, e);
104         }
105
106         private void num6_Click(object sender, EventArgs e)
107         {
108             Number_Pressed(sender, e);
109         }
110
111         private void num3_Click(object sender, EventArgs e)
112         {
113             Number_Pressed(sender, e);
114         }
115
116         private void equal_Click(object sender, EventArgs e)
117         {
118             Operator_Pressed(sender, e);
119         }
120
121         private void addButton_Click(object sender, EventArgs e)
122         {
123             Operator_Pressed(sender, e);
```




```
126         private void subButton_Click(object sender, EventArgs e)
127         {
128             Operator_Pressed(sender, e);
129         }
130
131         private void mulButton_Click(object sender, EventArgs e)
132         {
133             Operator_Pressed(sender, e);
134         }
135
136         private void divButton_Click(object sender, EventArgs e)
137         {
138             Operator_Pressed(sender, e);
139         }
140
141         private void button5_Click(object sender, EventArgs e)
142         {
143             Number_Pressed(sender, e);
144         }
145
146         private void sine_Click(object sender, EventArgs e)
147         {
148             double currentValue = double.Parse(text.Text);
149             double ans = Math.Sin(currentValue);
150             text.Text = ans.ToString();
151         }
152
153         private void cosine_Click(object sender, EventArgs e)
154         {
155             double currentValue = double.Parse(text.Text);
156             double ans = Math.Cos(currentValue);
157             text.Text = ans.ToString();
158         }
```

```
159
160         private void tangent_Click(object sender, EventArgs e)
161         {
162             double currentValue = double.Parse(text.Text);
163             double ans = Math.Tan(currentValue);
164             text.Text = ans.ToString();
165         }
166
167         private void log_Click(object sender, EventArgs e)
168         {
169             double currentValue = double.Parse(text.Text);
170             double ans = Math.Log10(currentValue);
171             text.Text = ans.ToString();
172         }
173     }
174 }
175
```

Output:



Task 2 (Dynamic Grid)

dataGrid | dataGrid.Form1 | button1_Click(o

```
1   using System;
2   using System.Collections.Generic;
3   using System.ComponentModel;
4   using System.Data;
5   using System.Drawing;
6   using System.Linq;
7   using System.Text;
8   using System.Threading.Tasks;
9   using System.Windows.Forms;
10
11  namespace dataGrid
12  {
13      public partial class Form1 : Form
14      {
15          public Form1()
16          {
17              InitializeComponent();
18          }
19
20          private void Form1_Load(object sender, EventArgs e)
21          {
22
23          }
24
25          private void button1_Click(object sender, EventArgs e)
26          {
```

```
25      private void button1_Click(object sender, EventArgs e)
26      {
27          dataGridView1.ColumnCount = 3;
28          dataGridView1.Columns[0].Name = "Product ID";
29          dataGridView1.Columns[1].Name = "Product Name";
30          dataGridView1.Columns[2].Name = "Product Price";
31
32          string[] row = new string[]
33          { id.Text,name.Text, price.Text};
34          dataGridView1.Rows.Add(row);
35
36
37
38      }
```

Output: