Parent and Child Form Loading Example

```csharp
//
// FORM SWITCHING EXAMPLE
// =====================
// Demonstrates how to switch between different
// forms connected in the same application.
//
// FormMain is the main form. It has two children
// and one grandchild:
//
//          FormMain--> Form One
//                  '--> Form Two --> Form Three
//
// Look at the code to understand why Form One
// cannot show Form Two but it can go back to
// FormMain.
//
// Look at the code to understand why Form Two
// can go back to FormMain or show Form Three.
//
// Revision History
// ================
// 21.05.2023 BRD Original version.
//
using System;
using System.Windows.Forms;

namespace Form_Loading {
    public partial class FormMain : Form {
        // FormOne is another form we have already created.
        // This is an object of type Form that will allows us
        // to control FormOne when we want to after we create
        // it in this forms constructor.
        Form FormOne;

        // FormTwo can be accessed from FormMain
        Form FormTwo;

        //
        // Constructor FormMain
        // ====================
        public FormMain() {
            InitializeComponent();

            // This creates FormOne and FormTwo. The this command
            // tells each form who its parent is.
            FormOne = new FormOne(this);
            FormTwo = new FormTwo(this);
        }

        //
        // FormMain_Load()
        // ==============
        private void FormMain_Load(object sender, EventArgs e) {
```

```csharp
54          }
55
56          //
57          // buttonLoadFormOne_Click()
58          // =========================
59          private void buttonLoadFormOne_Click(object sender, EventArgs e) ⤶
              {
60              // FormMain is the current visible form. It can be          ⤶
                 referenced with
61              // the this keyword. Make FormMain invisible
62              this.Visible = false;
63
64              // Now tell FormOne to show itself.
65              FormOne.Show();
66          }
67
68          //
69          // buttonLoadFormTwo_Click()
70          // =========================
71          private void buttoLoadFormTwo_Click(object sender, EventArgs e)  ⤶
              {
72              // Make FormMain invisible
73              this.Visible = false;
74
75              // Now tell FormTwo to show itself.
76              FormTwo.Show();
77          }
78      }
79  }
80
```

```csharp
1  //
2  // FORM ONE
3  // ========
4  // FormOne is a child of FormMain
5
6  using System;
7  using System.Windows.Forms;
8
9  namespace Form_Loading {
10     public partial class FormOne : Form {
11
12         Form FormParent;
13
14         //
15         // Constructor FormOne
16         // ===================
17         public FormOne(Form FormParent) {
18             InitializeComponent();
19
20             // The parent of this form is FormMain. A reference
21             // to it was passed in via this Constructor. Save it
22             // so we know where to go back to.
23             this.FormParent = FormParent;
24         }
25
26         private void FormOne_Load(object sender, EventArgs e) {
27         }
28
29         //
30         // buttonGoBack_Click
31         // ==================
32         private void buttonGoBack_Click(object sender, EventArgs e) {
33             // Hide FormOne now we have finished with it.
34             this.Visible = false;
35
36             // Go back to the parent of this form. It is FormMain.
37             FormParent.Show();
38         }
39     }
40 }
41
```

```csharp
1  //
2  // FORM TWO
3  // ========
4  // FormTwo has a child of its own called
5  // FormThree. FormThree is a grandchild of
6  // FormMain.
7
8  using System;
9  using System.Collections.Generic;
10 using System.ComponentModel;
11 using System.Data;
12 using System.Drawing;
13 using System.Linq;
14 using System.Text;
15 using System.Threading.Tasks;
16 using System.Windows.Forms;
17
18 namespace Form_Loading {
19     public partial class FormTwo : Form {
20         Form FormParent;
21         Form FormThree;
22
23         //
24         // Constructor FormTwo
25         // ===================
26         public FormTwo(Form FormParent) {
27             InitializeComponent();
28
29             // The parent of this form is FormMain. A reference
30             // to it was passed in via this Constructor. Save it
31             // so we know where to go back to.
32             this.FormParent = FormParent;
33
34             // Form Two can also display Form Three ...
35             FormThree = new FormThree(this);
36         }
37
38         //
39         // FormTwo_Load()
40         // ==============
41         private void FormTwo_Load(object sender, EventArgs e) {
42         }
43
44         //
45         // buttonGoBack_Click()
46         // ====================
47         private void buttonGoBack_Click(object sender, EventArgs e) {
48             // Hide FormTwo now we have finished with it.
49             this.Visible = false;
50
51             // Go back to the parent of this form. It is FormMain.
52             FormParent.Show();
53         }
```

```
54
55          //
56          // buttonLoadFormThree_Click()
57          // =========================
58          private void buttonLoadFormThree_Click(object sender, EventArgs  ⤶
              e) {
59              // Hide FormTwo now we have finished with it.
60              this.Visible = false;
61
62              // Load Form Three.
63              FormThree.Show();
64          }
65      }
66  }
67
```

```csharp
 1  //
 2  // FORM THREE
 3  // ==========
 4  // FormThree is the child of FormTwo
 5  //
 6  using System;
 7  using System.Windows.Forms;
 8
 9  namespace Form_Loading {
10      public partial class FormThree : Form {
11
12          // The parent of this form is FormMain. A reference
13          // to it was passed in via this Constructor. Save it
14          // so we know where to go back to.
15          Form FormParent;
16
17          //
18          // Constructor FormThree
19          // =====================
20          public FormThree(Form FormParent) {
21              InitializeComponent();
22              this.FormParent = FormParent;
23          }
24
25          private void FormThree_Load(object sender, EventArgs e) {
26          }
27
28          //
29          // buttonGoBack_Click()
30          // ====================
31          private void buttonGoBack_Click(object sender, EventArgs e) {
32              // Hide FormThree now we have finished with it.
33              this.Visible = false;
34
35              // Go back to the parent of this form. It is FormMain.
36              FormParent.Show();
37          }
38      }
39  }
40
```