ListBox Demo 2


```csharp
using System;
using System.Drawing;
using System.Collections;
using System.ComponentModel;
using System.Windows.Forms;
using System.Data;

public class ListBoxDemo : System.Windows.Forms.Form {
private System.ComponentModel.Container container;
private System.Windows.Forms.Button buttonAdd;
private System.Windows.Forms.Button buttonClose;
private System.Windows.Forms.Button buttonModify;
private System.Windows.Forms.Button buttonDelete;
private System.Windows.Forms.Button buttonMoveUp;
private System.Windows.Forms.Button buttonMoveDown;
private System.Windows.Forms.ListBox listbox;
private System.Windows.Forms.TextBox textbox;
private System.Windows.Forms.Label label;
private int nSelectedIndex;
//*********SIZE & LOCATION*****************//
// COMPONENT — BUTTON(s) aligned along X-axis.
const int BUTTON_LENGTH = 50;
const int BUTTON_HEIGHT = 20;
const int FIRSTBUTTON_XPOS = 20;
const int FIRSTBUTTON_YPOS =220;
const int XSPACING = 70; // (Note: XSPACING >= BUTTON_LENGTH)
const int YSPACING = 0;
//COMPONENT — MOVE BUTTONS
const int MBUTTON_LENGTH = 20;
const int MBUTTON_HEIGHT = 20;
const int FIRSTMBUTTON_XPOS = 220;
const int FIRSTMBUTTON_YPOS =70;
const int SECONDMBUTTON_XPOS = 220;
```

```
const int SECONDMBUTTON_YPOS =100;
// COMPONENT – LISTBOX
const int LISTBOX_LENGTH = 3*BUTTON_LENGTH;
const int LISTBOX_HEIGHT = 6*BUTTON_HEIGHT;
const int LISTBOX_XPOS = 50;
const int LISTBOX_YPOS = 50;
// COMPONENT – LABEL
const int LABEL_LENGTH = 50;
const int LABEL_HEIGHT = 50;
const int LABEL_XPOS = 20; // align it with first button
const int LABEL_YPOS = 173;
// COMPONENT – TEXTBOX
const int TEXTBOX_LENGTH = 120;
const int TEXTBOX_HEIGHT = 50;
const int TEXTBOX_XPOS = 70;
const int TEXTBOX_YPOS = 170;

public ListBoxDemo() : base() {
InitializeComponent();
}

private void InitializeComponent() {
// this
this.container = new System.ComponentModel.Container();
this.Text="List Box";
// buttonAdd
this.buttonAdd = new System.Windows.Forms.Button();
buttonAdd.Location = new
System.Drawing.Point(FIRSTBUTTON_XPOS,FIRSTBUTTON_YPOS);
buttonAdd.Text = "&Add";
buttonAdd.Size                    =                    new
System.Drawing.Size(BUTTON_LENGTH,BUTTON_HEIGHT);
buttonAdd.Click                +=                    new
System.EventHandler(this.buttonAdd_Click);
buttonAdd.Enabled = false;
this.Controls.Add(this.buttonAdd);
//buttonModify
```

```csharp
this.buttonModify = new System.Windows.Forms.Button();
buttonModify.Location = new
System.Drawing.Point(FIRSTBUTTON_XPOS+XSPACING,FIRSTBUTTON_YPO
S+YSPACING);
buttonModify.Text = "&Modify";
buttonModify.Size                          =                new
System.Drawing.Size(BUTTON_LENGTH,BUTTON_HEIGHT);
buttonModify.Click                 +=                new
System.EventHandler(this.buttonModify_Click);
buttonModify.Enabled = false;
this.Controls.Add(this.buttonModify);
//buttonDelete
this.buttonDelete = new System.Windows.Forms.Button();
buttonDelete.Location = new
System.Drawing.Point(FIRSTBUTTON_XPOS+2*XSPACING,FIRSTBUTTON_Y
POS+2*YSPACING);
buttonDelete.Text = "&Delete";
buttonDelete.Size                          =                new
System.Drawing.Size(BUTTON_LENGTH,BUTTON_HEIGHT);
buttonDelete.Enabled = false;
buttonDelete.Click                 +=                new
System.EventHandler(this.buttonDelete_Click);
this.Controls.Add(this.buttonDelete);
// buttonClose
this.buttonClose = new System.Windows.Forms.Button();
buttonClose.Location = new
System.Drawing.Point(FIRSTBUTTON_XPOS+3*XSPACING,FIRSTBUTTON_Y
POS+3*YSPACING);
buttonClose.Text = "&Close";
buttonClose.Size                          =                new
System.Drawing.Size(BUTTON_LENGTH,BUTTON_HEIGHT);
buttonClose.Click                 +=                new
System.EventHandler(this.buttonClose_Click);
this.Controls.Add(this.buttonClose);
// listbox
this.listbox = new System.Windows.Forms.ListBox();
listbox.Location                          =                new
```

```
System.Drawing.Point(LISTBOX_XPOS,LISTBOX_YPOS);
listbox.Size                              =              new
System.Drawing.Size(LISTBOX_LENGTH,LISTBOX_HEIGHT);
listbox.Click += new

System.EventHandler(this.listbox_SelectedIndexChanged);
listbox.BackColor                                        =
(Color)System.Drawing.SystemColors.Desktop;
this.Controls.Add(this.listbox);
// label
this.label = new System.Windows.Forms.Label();
label.Location                       =              new
System.Drawing.Point(LABEL_XPOS,LABEL_YPOS);
label.Size                           =              new
System.Drawing.Size(LABEL_LENGTH,LABEL_HEIGHT);
label.Text = "Enter:";
this.Controls.Add(this.label);
// textbox
this.textbox = new System.Windows.Forms.TextBox();
textbox.Location                     =              new
System.Drawing.Point(TEXTBOX_XPOS,TEXTBOX_YPOS);
textbox.Click += new System.EventHandler(this.textbox_Click);
textbox.Size                         =              new
System.Drawing.Size(TEXTBOX_LENGTH,TEXTBOX_HEIGHT);
this.Controls.Add(this.textbox);
// buttonMoveUp
this.buttonMoveUp = new System.Windows.Forms.Button();
buttonMoveUp.Location = new
System.Drawing.Point(FIRSTMBUTTON_XPOS,FIRSTMBUTTON_YPOS);
buttonMoveUp.Text = "<"; buttonMoveUp.Size = new
System.Drawing.Size(MBUTTON_LENGTH,MBUTTON_HEIGHT);
buttonMoveUp.Click                   +=              new
System.EventHandler(this.buttonMoveUp_Click);
buttonMoveUp.Enabled                 =             false;
this.Controls.Add(this.buttonMoveUp);  //  buttonMoveDown
this.buttonMoveDown = new  System.Windows.Forms.Button();
buttonMoveDown.Location              =              new
```

```csharp
System.Drawing.Point(SECONDMBUTTON_XPOS,SECONDMBUTTON_YPOS);
buttonMoveDown.Text = ">“;
buttonMoveDown.Size = new

System.Drawing.Size(MBUTTON_LENGTH,MBUTTON_HEIGHT);
buttonMoveDown.Click += new
System.EventHandler(this.buttonMoveDown_Click);
buttonMoveDown.Enabled = false;
this.Controls.Add(this.buttonMoveDown);
}
protected void textbox_Click(Object sender, System.EventArgs
e) {
this.buttonAdd.Enabled = true;
if (this.listbox.Items.Count>0)
EnableAllListBoxButtons();
}
protected void listbox_SelectedIndexChanged(object sender,
System.EventArgs e) {
nSelectedIndex = this.listbox.SelectedIndex;
string szSelected = (string)this.listbox.SelectedItem;
this.textbox.Text = szSelected;
}
protected void buttonAdd_Click(Object sender, System.EventArgs
e) {
if (this.textbox.Text !=”") {
this.listbox.Items.Add(this.textbox.Text);
this.textbox.Text = “”;
EnableAllListBoxButtons();
}
}
protected void buttonModify_Click(Object sender,
System.EventArgs e) {
this.listbox.Items[nSelectedIndex] = this.textbox.Text;
}
protected void buttonDelete_Click(Object sender,
System.EventArgs e) {
nSelectedIndex = this.listbox.SelectedIndex;
```

```csharp
this.listbox.Items.Remove(nSelectedIndex);
System.Console.WriteLine("Remove fn does not work…");

}
protected void buttonClose_Click(Object sender,
System.EventArgs e) {
this.Close();
}
protected void buttonMoveUp_Click(Object sender,
System.EventArgs e) {
if (this.listbox.SelectedIndex >0)
this.listbox.SelectedIndex–;
}
protected void buttonMoveDown_Click(Object sender,
System.EventArgs e) {
if (this.listbox.SelectedIndex < this.listbox.Items.Count-1)
this.listbox.SelectedIndex++;    }    private    void
EnableAllListBoxButtons() { this.buttonAdd.Enabled = true;
this.buttonModify.Enabled = true; this.buttonDelete.Enabled =
true;      this.buttonMoveUp.Enabled     =     true;
this.buttonMoveDown.Enabled = true; } [STAThread] public
static void Main(string[] args) { Application.Run(new
ListBoxDemo()); } } // class [/csharp]
```