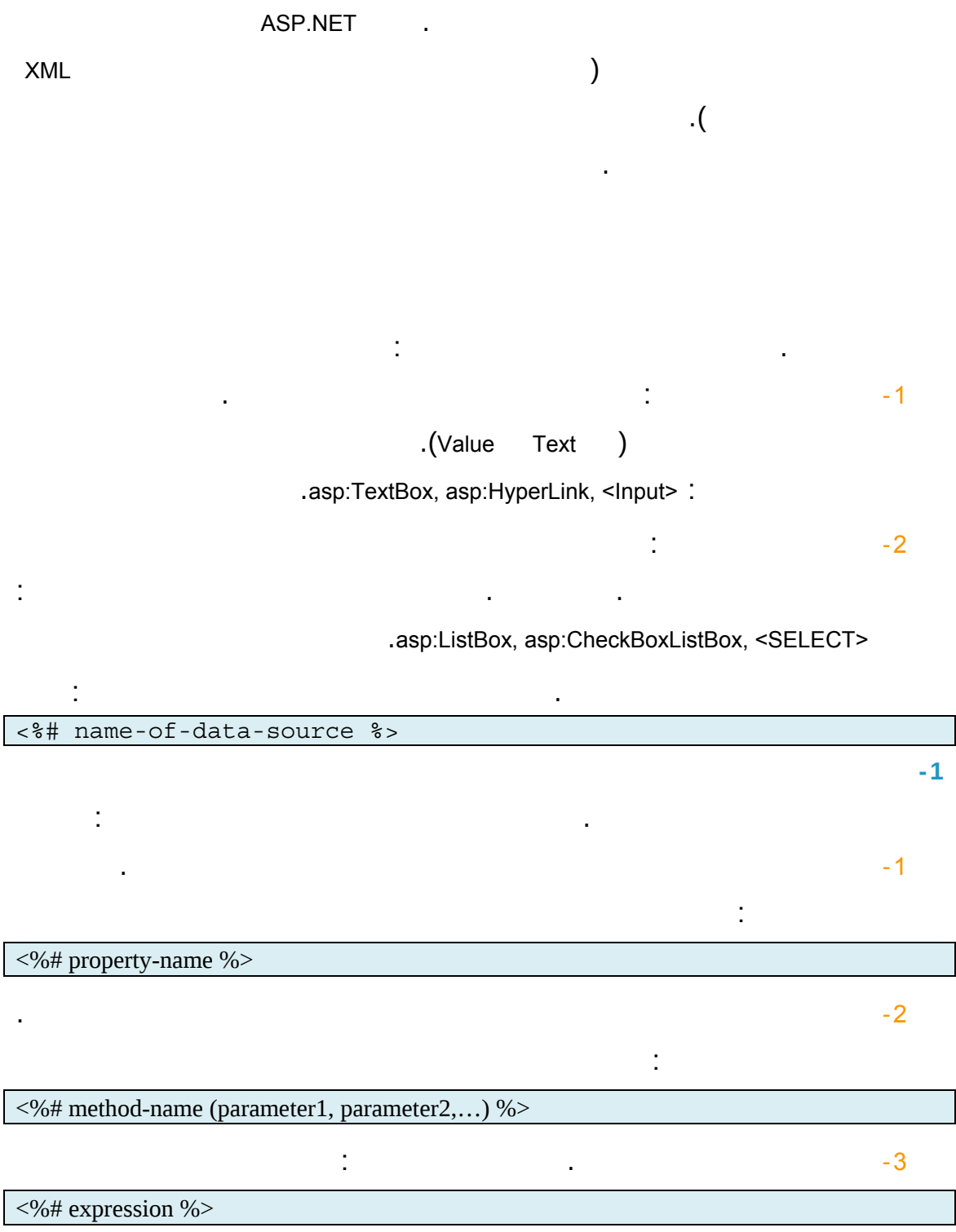


:

**ASP.NET/SQL Server**



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |               |          |          |         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------|----------|---------|
| Page                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |               | DataBind |          |         |
| Page_Load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |               |          |          |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |               |          |          |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |               |          |          |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |               | Test     | Label    | Text -1 |
| .DropDownList                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | SelectedValue | Image    | ImageUrl | -2      |
| )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | GCD           | Label    | Text     | -3      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |               |          |          |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |               |          |          |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |               | <INPUT>  | Value    | -4      |
| <pre> &lt;%@ Page Language="C#" AutoEventWireup="true" CodeFile="SimpleBind.aspx.cs" Inherits="SimpleBind" %&gt; &lt;!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd"&gt; &lt;html xmlns="http://www.w3.org/1999/xhtml"&gt; &lt;head runat="server"&gt;     &lt;title&gt;Simple Data Binding&lt;/title&gt; &lt;/head&gt; &lt;body&gt; &lt;form id="form1" runat="server"&gt; &lt;div&gt; &lt;table style="position: relative" border="1"&gt; &lt;caption&gt;     &lt;span style="color: #0000cc"&gt;Single-Value Data Binding&lt;/span&gt; &lt;/caption&gt; &lt;tr&gt;     &lt;td style="width: 100px"&gt;Property&lt;/td&gt;     &lt;td style="width: 100px"&gt;         &lt;asp:Label ID="Label1" runat="server"             Text="&lt;%# Test %&gt;" Style="position: relative"&gt; &lt;/asp:Label&gt;&lt;/td&gt;     &lt;td style="width: 55px"&gt;&lt;/td&gt;&lt;/tr&gt; &lt;tr&gt;     &lt;td style="width: 100px"&gt;Property&lt;/td&gt;     &lt;td style="width: 100px"&gt;         &lt;asp:DropDownList ID="lstCty" runat="server" Style="position: relative"&gt;             &lt;asp:ListItem Value="images\ctrusa.ico"&gt;USA&lt;/asp:ListItem&gt;             &lt;asp:ListItem Value="images\ctrfran.ico"&gt;France&lt;/asp:ListItem&gt;             &lt;asp:ListItem Value="images\ctrgerm.ico"&gt;Germany&lt;/asp:ListItem&gt;             &lt;asp:ListItem Value="images\ctritaly.ico"&gt;Italy&lt;/asp:ListItem&gt;         &lt;/asp:DropDownList&gt;&lt;/td&gt;     &lt;td style="width: 55px"&gt;         &lt;asp:Image ID="imgCty" runat="server"             ImageUrl="&lt;%# lstCty.SelectedValue %&gt;"             Style="position: relative" /&gt;&lt;/td&gt;&lt;/tr&gt; &lt;tr&gt;     &lt;td style="width: 100px"&gt;GCD Method&lt;/td&gt;     &lt;td style="width: 100px"&gt;         &lt;asp:Label ID="lblGCD" runat="server"             Style="position: relative"             Text="&lt;%# GCD(int.Parse(T1.Text), int.Parse(T2.Text)) %&gt;"&gt; &lt;/asp:Label&gt;&lt;/td&gt;     &lt;td style="width: 55px"&gt; </pre> |               |          |          |         |

```

<asp:TextBox ID="T1" runat="server"
    Style="position: relative">1</asp:TextBox>
<asp:TextBox ID="T2" runat="server"
    Style="position: relative">1</asp:TextBox></td></tr><tr>
<td style="width: 100px">Expression</td>
<td style="width: 100px">
<input type="text" id="htmlinput"
    runat="server" style="position: relative"
    value="<%# 3+4*5 %>" /></td>
<td style="width: 55px"></td></tr>
<tr>
<td style="width: 100px">
<asp:Button ID="Button1" runat="server"
    OnClick="Button1_Click" Style="position: relative"
    Text="Bind" /></td>
<td style="width: 100px"></td>
<td style="width: 55px"></td></tr></table></div>
</form>
</body>
</html>

```

.Page\_Load

Page

DataBind

)

Bind

.

(

:

```

public partial class SimpleBind : System.Web.UI.Page
{
    public string Test
    {
        get { return "Test"; }
    }
    public static int GCD(int n, int m)
    {
        while (n != m)
            if (n > m)
                n = n - m;
            else
                m = m - n;
        return n;
    }
    protected void Page_Load(object sender, EventArgs e)
    {
        Page.DataBind();
    }
    protected void Button1_Click(object sender, EventArgs e)
    {
        lblGCD.DataBind();
        imgCty.DataBind();
    }
}

```

.Bind

## Single-Value Data Binding

|                                                                                   |                                                                                          |                                                                                   |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Property                                                                          | Test                                                                                     |                                                                                   |
| Property                                                                          | France  |  |
| GCD Method                                                                        | 12                                                                                       | 36                                                                                |
|                                                                                   |                                                                                          | 24                                                                                |
| Expression                                                                        | 23                                                                                       |                                                                                   |
|  |                                                                                          |                                                                                   |

-2

.NET

□

□

<SELECT>, ListBox, DropDown, CheckBoxList, RadioButtonList, Repeater, DataList, DataGrid.

•

•

## Templates

-1

1

(Repeater, DataList)

-2

■

•

|                                                        |                  |
|--------------------------------------------------------|------------------|
|                                                        |                  |
|                                                        | TextField        |
| Value                                                  | ValueField       |
| {0: dddd MMMM dd yyyy} for Date<br>{0: C} for Currency | DateFormatString |
| :<br>DataSet                                           | DataMember       |

## DataBind()

•

|   |                      |
|---|----------------------|
|   |                      |
| . | DataBinding          |
| . | SelectedIndexChanged |

:

. DataSet :Collection -1

. :ArrayList -2

) value key :Hashtable -3

(

.DataTable :DataView -4

. :DataReader -5

ArrayList : -3

ArrayList

.Page\_Load

:DataSource

```
protected void Page_Load(object sender, EventArgs e)
{
    //create an ArrayList of values to bind to
    ArrayList arrValues = new ArrayList();
    arrValues.Add("Microsoft");
    arrValues.Add("Sun");
    arrValues.Add("IBM");
    arrValues.Add("Compaq");
    arrValues.Add("Oracle");

    //set the DataSource property of the controls to the array
    MySelectList.DataSource = arrValues;
    MyDropDown.DataSource = arrValues;
    MyASPList.DataSource = arrValues;
    MyDataGrid.DataSource = arrValues;
    MyRepeater.DataSource = arrValues;
    MyDataList.DataSource = arrValues;
}
```

```
MyCheckList.DataSource = arrValues;
MyRadioList.DataSource = arrValues;

//bind all the controls on the page
Page.DataBind();
}
```

.<ItemTemplate>

DataList Repeater

<ItemTemplate>

:

```
<%# Container.DataItem %>
```

: XHTML

```
<%@ Page Language="C#" AutoEventWireup="true"
CodeFile="RepeatBind1.aspx.cs" Inherits="RepeatBind1" %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
<title>Repeated-Value Data Binding</title>
</head>
<body>
<form id="form1" runat="server">
<div>
<table style="position: relative" cellpadding="5" cellspacing="5">
<caption>
<span style="color: #0000cc">Repeated-Value Data Binding 1 </span>
</caption>
<tr><td>
HTML <b>&lt;select&gt;</b> element:<br />
<select id="MySelectList" runat="server" /><p />
<b>&lt;ASP:DropDownList&gt;</b> control:<br />
<asp:DropDownList ID="MyDropDown" runat="server" /><p />
<b>&lt;ASP:ListBox&gt;</b> control:<br />
<asp:ListBox ID="MyASPList" runat="server" /><p />
<b>&lt;ASP:DataGrid&gt;</b> control:<br />
<asp:DataGrid ID="MyDataGrid" runat="server" /><p />
<b>&lt;ASP:Repeater&gt;</b> control:<br />
<asp:Repeater ID="MyRepeater" runat="server">
<ItemTemplate>
<%# Container.DataItem %>
</ItemTemplate>
</asp:Repeater>
<p /></td>
<td valign="top">
<b>&lt;ASP:DataList&gt;</b> control:<br />
<asp:DataList ID="MyDataList" runat="server">
<ItemTemplate>
<%# Container.DataItem %>
</ItemTemplate>
</asp:DataList><p />
<b>&lt;ASP:CheckBoxList&gt;</b> control:<br />
<asp:CheckBoxList ID="MyCheckList" runat="server" /><p />
<b>&lt;ASP:RadioButtonList&gt;</b> control:<br />
<asp:RadioButtonList ID="MyRadioList" runat="server" />
<p /> </td></tr></table></div>
</form>
</body>
```

</html>

## Repeated-Value Data Binding 1

HTML <select> element:

Microsoft ▼

<ASP:DropDownList> control:

Microsoft ▼

<ASP:ListBox> control:

Microsoft ▲  
Sun  
IBM  
Compaq ▼

<ASP:DataGrid> control:

| Item      |
|-----------|
| Microsoft |
| Sun       |
| IBM       |
| Compaq    |
| Oracle    |

<ASP:Repeater> control:

Microsoft Sun IBM Compaq Oracle

<ASP:DataList> control:

Microsoft  
Sun  
IBM  
Compaq  
Oracle

<ASP:CheckBoxList> control:

☐ Microsoft  
☐ Sun  
☐ IBM  
☐ Compaq  
☐ Oracle

<ASP:RadioButtonList> control:

☐ Microsoft  
☐ Sun  
☐ IBM  
☐ Compaq  
☐ Oracle

Hashtable : -4

Hashtable

.(key, value)

.Page\_Load

.DataSource

DataValueField (DataList Repeater )

DataTextField

DataTextFormatString

```
protected void Page_Load(object sender, EventArgs e)
{
    //create a Hashtable of values to bind to
    Hashtable tabValues = new Hashtable();
    tabValues.Add("Microsoft", 49.56);
    tabValues.Add("Sun", 28.33);
    tabValues.Add("IBM", 55);
    tabValues.Add("Compaq", 20.74);
    tabValues.Add("Oracle", 41.1);
    //first <select> displays the Keys in the Hashtable
    MySelectList1.DataSource = tabValues;
    MySelectList1.DataTextField = "key";
}
```

```

//second one displays the Values in the HashTable
//and uses the Keys as the <option> values
MySelectList2.DataSource = tabValues;
MySelectList2.DataValueField = "key";
MySelectList2.DataTextField = "value";
//same applies to ASP: controls, except here
//we can also specify the format of the Key
MyDropDown1.DataSource = tabValues;
MyDropDown1.DataTextField = "key";
MyDropDown2.DataSource = tabValues;
MyDropDown2.DataValueField = "key";
MyDropDown2.DataTextField = "value";
MyDropDown2.DataTextFormatString = "{0:F}";
MyASPList1.DataSource = tabValues;
MyASPList1.DataTextField = "key";
MyASPList2.DataSource = tabValues;
MyASPList2.DataValueField = "key";
MyASPList2.DataTextField = "value";
MyASPList2.DataTextFormatString = "{0:C}";
MyDataGrid.DataSource = tabValues;
MyRepeater.DataSource = tabValues;
MyDataList.DataSource = tabValues;
//in the CheckBoxList we'll display the Title and
//use the Value as the control value
MyCheckList.DataSource = tabValues;
MyCheckList.DataValueField = "value";
MyCheckList.DataTextField = "key";
//in the RadioList we'll display and format the
//Value and use the Key as the control value
MyRadioList.DataSource = tabValues;
MyRadioList.DataValueField = "key";
MyRadioList.DataTextField = "value";
MyRadioList.DataTextFormatString = "Percentage rate {0:F}%";
Page.DataBind(); //bind all the controls on the page
}

```

.<ItemTemplate>

DataList Repeater

<ItemTemplate>

.

:

```
<%# DataBinder.Eval(Container.DataItem, "key") %>
```

:

```
<%# DataBinder.Eval(Container.DataItem, "Value") %>
```

:

```
<%#DataBinder.Eval(Container.DataItem, "Value", "{0:E}") %>
```

:

```

<%@ Page Language="C#" AutoEventWireup="true"
CodeFile="RepeatBind2.aspx.cs" Inherits="RepeatBind2" %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title>Repeat Binding 2</title>
</head>
<body>
<form id="form1" runat="server">
<div >

```

```

<table style="position: relative; left: 0px; top: 0px;" cellpadding="5"
cellspacing="5" title="Repeated-Value Data Binding 2"><caption >
<span style="color: #0000cc">Repeated-Value Data Binding 2
</span></caption><tr><td >
    HTML <b>&lt;select&gt;</b> elements:<br />
    <select id="MySelectList1" runat="server" />&nbsp;<br />
    <select id="MySelectList2" runat="server" /><p />
    <b>&lt;ASP:DropDownList&gt;</b> controls:<br />
    <asp:DropDownList ID="MyDropDown1" runat="server" />&nbsp;<br />
    <asp:DropDownList ID="MyDropDown2" runat="server" /><p />
    <b>&lt;ASP:ListBox&gt;</b> controls:<br />
    <asp:ListBox ID="MyASPList1" runat="server" />&nbsp;<br />
    <asp:ListBox ID="MyASPList2" runat="server" /><p />
    <b>&lt;ASP:DataGrid&gt;</b> control:<br />
    <asp:DataGrid ID="MyDataGrid"
        runat="server"AutoGenerateColumns="false">
    <Columns>
        <asp:BoundColumn HeaderText="key" DataField="key" />
        <asp:BoundColumn HeaderText="value" DataField="value"
            DataFormatString="{0:C}" />
    </Columns>
</asp:DataGrid><p />
    <b>&lt;ASP:Repeater&gt;</b> control:<br />
    <asp:Repeater ID="MyRepeater" runat="server">
        <ItemTemplate>
            <%# DataBinder.Eval(Container.DataItem, "key")%>
            =
            <%# DataBinder.Eval(Container.DataItem, "value")%><br />
        </ItemTemplate>
    </asp:Repeater><p />
</td><td valign="top" >
    <b>&lt;ASP:DataList&gt;</b> control:<br />
    <asp:DataList ID="MyDataList" runat="server">
        <ItemTemplate>
            '<%# DataBinder.Eval(Container.DataItem, "key")%>' - value:
            <%# DataBinder.Eval(Container.DataItem, "Value", "{0:E}") %>
        </ItemTemplate>
    </asp:DataList><p />
    <b>&lt;ASP:CheckBoxList&gt;</b> control:<br />
    <asp:CheckBoxList ID="MyCheckList" runat="server" /><p />
    <b>&lt;ASP:RadioButtonList&gt;</b> control:<br />
    <asp:RadioButtonList ID="MyRadioList" runat="server" /><p />
    </td></tr></table></div></form>
</body>
</html>

```

## Repeated-Value Data Binding 2

HTML `<select>` elements:

Compaq ▼ 20.74 ▼

`<ASP:DropDownList>` controls:

Compaq ▼ 20.74 ▼

`<ASP:ListBox>` controls:

|           |        |
|-----------|--------|
| Compaq    | €20.74 |
| Microsoft | €49.56 |
| IBM       | €55.00 |
| Oracle    | €41.10 |

`<ASP:DataGrid>` control:

| key       | value  |
|-----------|--------|
| Compaq    | €20.74 |
| Microsoft | €49.56 |
| IBM       | €55.00 |
| Oracle    | €41.10 |
| Sun       | €28.33 |

`<ASP:Repeater>` control:

Compaq = 20.74  
 Microsoft = 49.56  
 IBM = 55  
 Oracle = 41.1  
 Sun = 28.33

`<ASP:DataList>` control:

'Compaq'- value: 2.074000E+001  
 'Microsoft'- value: 4.956000E+001  
 'IBM'- value: 5.500000E+001  
 'Oracle'- value: 4.110000E+001  
 'Sun'- value: 2.833000E+001

`<ASP:CheckBoxList>` control:

- ☐ Compaq  
☐ Microsoft  
☐ IBM  
☐ Oracle  
☐ Sun

`<ASP:RadioButtonList>` control:

- ☐ Percentage rate 20.74%  
☐ Percentage rate 49.56%  
☐ Percentage rate 55.00%  
☐ Percentage rate 41.10%  
☐ Percentage rate 28.33%

.1

.NET

-1

.SQL Server Database File

.NET

.mdf

.(Add New Item → SQL Database)

App\_Data

Hotel.mdf

|       |         |            |            |
|-------|---------|------------|------------|
| Flag  | Country | Countries  | -1         |
|       |         | .(Images ) |            |
|       | .Price  | Star       | Stars      |
|       |         |            | -2         |
|       | .factor | Place      | Places     |
|       |         |            | -3         |
|       | .Price  | Meal       | Meals      |
|       |         |            | -4         |
| Price | Extra   | :          | Extras     |
|       |         |            | -5         |
|       |         |            | .Available |



.Countries

| dbo.Countries...ATA\HOTEL.MDF) |             |              |                                     |
|--------------------------------|-------------|--------------|-------------------------------------|
|                                | Column Name | Data Type    | Allow Nulls                         |
| ►                              | Id          | int          | <input type="checkbox"/>            |
|                                | Country     | nvarchar(50) | <input type="checkbox"/>            |
|                                | Flag        | nvarchar(50) | <input checked="" type="checkbox"/> |

| Countries: Qu...ATA\HOTEL.MDF) |    |         |             |
|--------------------------------|----|---------|-------------|
|                                | Id | Country | Flag        |
| ►                              | 1  | France  | France.ICO  |
|                                | 2  | Germany | Germany.ICO |
|                                | 3  | Italy   | Italy.ICO   |
|                                | 4  | USA     | USA.ICO     |

-2

:

.NET

.Select -1

.Insert -2

.Delete -3

.Update -4

SqlDataSource -3

(ToolBox Data )

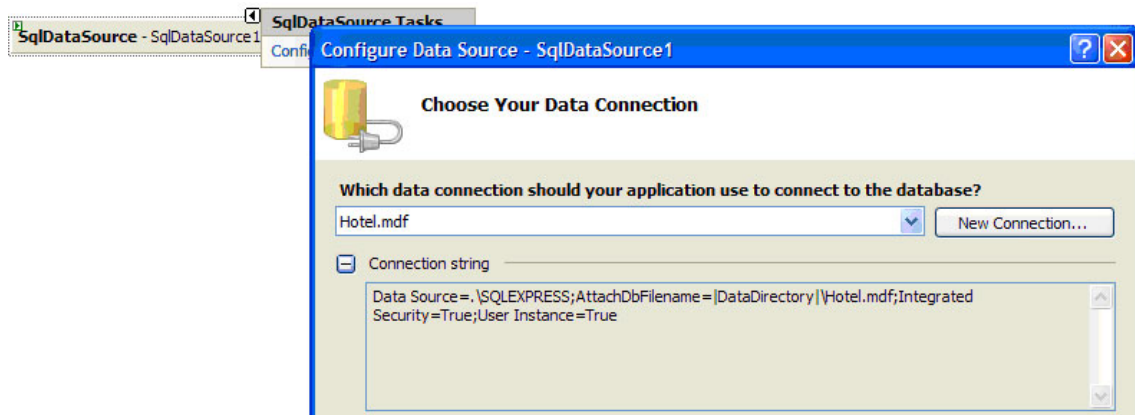
.SQL

.Hotel.mdf

SqlDataSource

Connection String

.(ConnectionStringHotel )



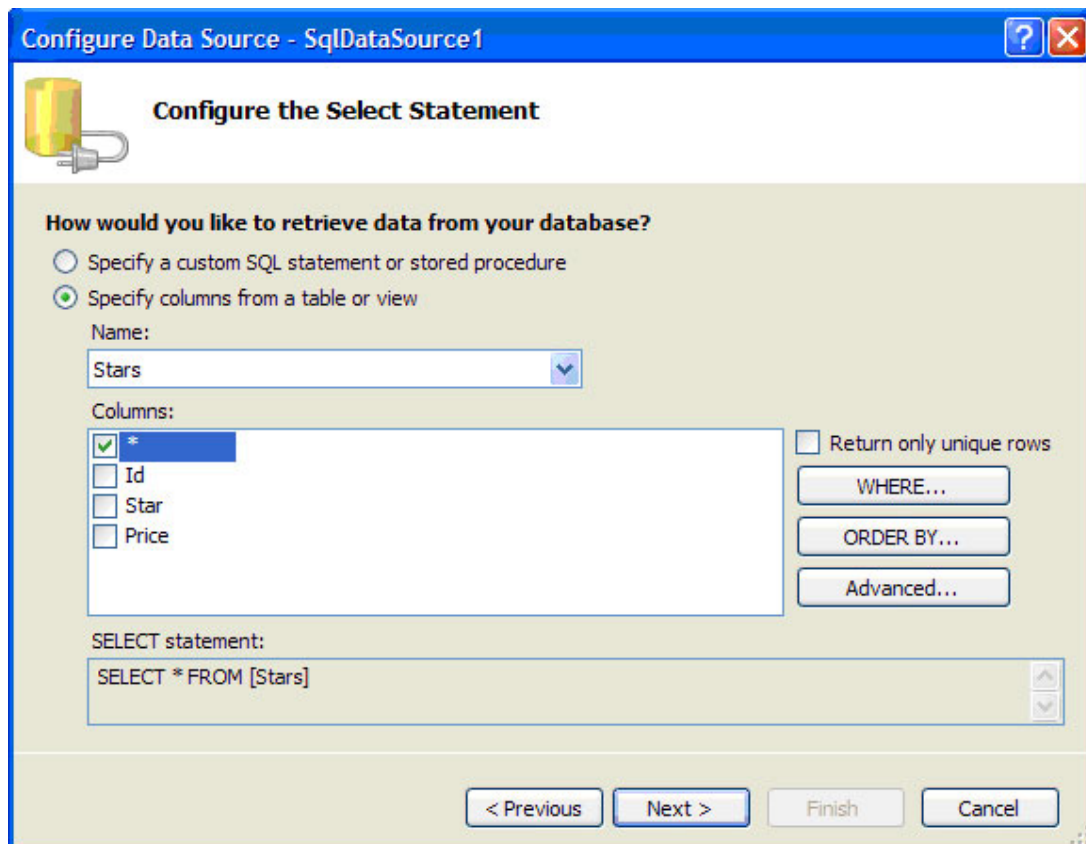
:Web.Config

```
<configuration>
  <appSettings/>
  <connectionStrings>
    <add name="ConnectionStringHotel" connectionString="Data
Source=.\SQLEXPRESS;AttachDbFilename=|DataDirectory|\Hotel.mdf;Integrated
Security=True;User Instance=True"
      providerName="System.Data.SqlClient" />
  </connectionStrings>
</configuration>
```

( )

.Web.Config

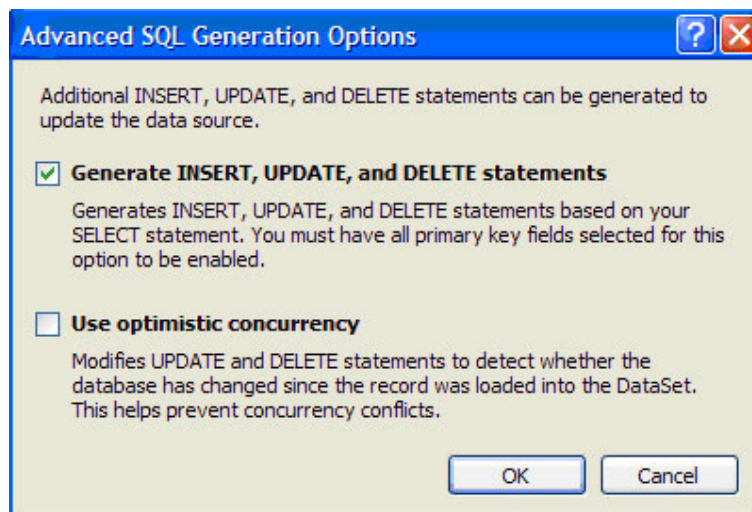
## SqlDataSource



The dialog box is titled "Configure Data Source - SqlDataSource1". It features a yellow cylinder icon with a plug. The main heading is "Configure the Select Statement". Below this, a question asks "How would you like to retrieve data from your database?". Two radio buttons are present: "Specify a custom SQL statement or stored procedure" (unselected) and "Specify columns from a table or view" (selected). Under the selected option, there is a "Name:" label and a dropdown menu showing "Stars". Below that is a "Columns:" label and a list box containing four items: "\*" (checked), "Id", "Star", and "Price". To the right of the list box is a checkbox labeled "Return only unique rows" which is unchecked. Below the list box are three buttons: "WHERE...", "ORDER BY...", and "Advanced...". At the bottom left, there is a "SELECT statement:" label and a text box containing "SELECT \* FROM [Stars]". At the bottom right, there are four buttons: "< Previous", "Next >", "Finish", and "Cancel".

Advanced

Sql



The dialog box is titled "Advanced SQL Generation Options". It contains a paragraph: "Additional INSERT, UPDATE, and DELETE statements can be generated to update the data source." Below this are two options. The first is "Generate INSERT, UPDATE, and DELETE statements" with a checked checkbox. Its description is: "Generates INSERT, UPDATE, and DELETE statements based on your SELECT statement. You must have all primary key fields selected for this option to be enabled." The second option is "Use optimistic concurrency" with an unchecked checkbox. Its description is: "Modifies UPDATE and DELETE statements to detect whether the database has changed since the record was loaded into the DataSet. This helps prevent concurrency conflicts." At the bottom right are two buttons: "OK" and "Cancel".

SelectQuery, :SqlDataSource

Sql

.InsertQuery, DeleteQuery, UpdateQuery

.Hotel.mdf

. DataSourceID

:

|                |  |
|----------------|--|
| DataTextField  |  |
| DataValueField |  |

. IstCty

: .Countries (DataSourceID=SqlDataSourceCountry)

|                |         |
|----------------|---------|
| DataTextField  | Country |
| DataValueField | Flag    |

. SelectedValue

imgFlag

```
protected void lstCty_SelectedIndexChanged(object sender,EventArgs e)
{ this.imgFlag.ImageUrl = "Images\\" + this.lstCty.SelectedValue; }
```

|      |                     |        |              |       |
|------|---------------------|--------|--------------|-------|
| Star | SqlDataSourceStars  | Stars  | IstStars     |       |
|      |                     |        | Price        |       |
|      | SqlDataSourcePlaces | Places | IstWhere     |       |
|      |                     |        | Price        | Place |
| Meal | SqlDataSourceMeals  | Meals  | IstFood      |       |
|      |                     |        | Price        |       |
|      | SqlDataSourceExtras | Extras | IstExtra     |       |
|      |                     |        | Price        | Extra |
|      |                     |        | HotelDB.aspx |       |

Hotel Example (DB)

|          |                                                                                                             |                                                                                   |
|----------|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Country: | <input type="text" value="Databound"/><br><input type="text" value="SqlDataSource - SqlDataSourceCountry"/> |  |
| Stars:   | <input type="text" value="Databound"/><br><input type="text" value="SqlDataSource - SqlDataSourceStars"/>   |                                                                                   |
| Where:   | <input type="text" value="Databound"/><br><input type="text" value="SqlDataSource - SqlDataSourcePlaces"/>  |                                                                                   |
| Meals:   | <input type="text" value="Databound"/><br><input type="text" value="SqlDataSource - SqlDataSourceMeals"/>   |                                                                                   |
| Extra:   | <input type="text" value="Databound"/><br><input type="text" value="SqlDataSource - SqlDataSourceExtras"/>  |                                                                                   |
| How Much | <input type="text"/>                                                                                        |                                                                                   |

[Home](#)

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="HotelDB.aspx.cs"
Inherits="WebServer" %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" >
<head id="Head1" runat="server">
    <title>Hotel Example (DB)</title>
</head>
<body >
    <form id="form1" runat="server">
        <div> <table border="1">
            <caption> Hotel Example (DB)&nbsp;  </caption>
<tr>
<td style="width: 100px">Country:</td>
<td style="width: 100px">
<asp:DropDownList ID="lstCty" runat="server" AutoPostBack="True"
OnSelectedIndexChanged="lstCty_SelectedIndexChanged"
Style="position: relative"
DataSourceID="SqlDataSourceCountry" DataTextField="Country"
DataValueField="Flag" OnPreRender="lstCty_PreRender" >
</asp:DropDownList>
<asp:SqlDataSource ID="SqlDataSourceCountry" runat="server"
ConnectionString="<%= $ ConnectionStrings:ConnectionStringHotel %>"
SelectCommand="SELECT * FROM [Countries]"></asp:SqlDataSource></td>
<td style="width: 100px">
<asp:Image ID="imgFlag" runat="server" Style="position: relative"
/></td></tr>
<tr>
<td style="width: 100px">
Stars:</td>
<td style="width: 100px">
<asp:DropDownList ID="lstStars" runat="server" Style="position: relative"
DataSourceID="SqlDataSourceStars" DataTextField="Star"
DataValueField="Price"></asp:DropDownList>
<asp:SqlDataSource ID="SqlDataSourceStars" runat="server"
ConnectionString="<%= $ ConnectionStrings:ConnectionStringHotel %>"
SelectCommand="SELECT * FROM [Stars]"></asp:SqlDataSource></td>
<td style="width: 100px"></td></tr>
<tr>
<td style="width: 100px">Where:</td>
<td style="width: 100px">
```

```

<asp:RadioButtonList ID="lstWhere" runat="server" Style="position:
relative" DataSourceID="SqlDataSourcePlaces" DataTextField="Place"
DataValueField="Factor">
</asp:RadioButtonList>
<asp:SqlDataSource ID="SqlDataSourcePlaces" runat="server"
ConnectionString="<%= $ ConnectionStrings:ConnectionStringHotel %>"
SelectCommand="SELECT * FROM [Places]">
</asp:SqlDataSource></td>
<td style="width: 100px"></td></tr>
<tr>
<td style="width: 100px">Meals:</td>
<td style="width: 100px">
<asp:CheckBoxList ID="lstFood" runat="server" Style="position: relative"
DataSourceID="SqlDataSourceMeals" DataTextField="Meal"
DataValueField="Price"></asp:CheckBoxList>
<asp:SqlDataSource ID="SqlDataSourceMeals" runat="server"
ConnectionString="<%= $ ConnectionStrings:ConnectionStringHotel %>"
SelectCommand="SELECT * FROM [Meals]"></asp:SqlDataSource></td>
<td style="width: 100px"></td></tr>
<tr><td style="width: 100px">Extra:</td>
<td style="width: 100px">
<asp:ListBox ID="lstExtra" runat="server" Style="position: relative"
SelectionMode="Multiple" DataSourceID="SqlDataSourceExtras"
DataTextField="Extra" DataValueField="Price"></asp:ListBox>
<asp:SqlDataSource ID="SqlDataSourceExtras" runat="server"
ConnectionString="<%= $ ConnectionStrings:ConnectionStringHotel %>"
SelectCommand="SELECT * FROM [Extras]"></asp:SqlDataSource>
</td><td style="width: 100px"></td></tr>
<tr><td style="width: 100px">
<asp:Button ID="btnCalc" runat="server" OnClick="btnCalc_Click"
Style="position: relative"Text="How Much" /></td>
<td style="width: 100px">
<asp:TextBox ID="txtOut" runat="server" Style="position:
relative">0</asp:TextBox></td>
<td style="width: 100px"></td></tr>
</table></div>
<asp:HyperLink ID="HyperLink1" runat="server" NavigateUrl="~/Default.aspx"
Style="position: relative">Home</asp:HyperLink></form></body></html>

```

Page\_Load

:

```

protected void Page_Load(object sender, EventArgs e)
{
    if ( ! Page.IsPostBack)
        lstWhere.SelectedIndex = 0;
}

```

:

PreRender

```

protected void lstCty_PreRender(object sender, EventArgs e)
{
    this.imgFlag.ImageUrl = "Images\\" + this.lstCty.Selected.Value;
}

```

:

```

protected void btnCalc_Click(object sender, EventArgs e)
{
    double x = 0;
    x = double.Parse(this.lstStars.SelectedValue);

    x = double.Parse(this.lstWhere.SelectedValue) * x;

    for (int i = 0; i < this.lstFood.Items.Count; i++)
        if (this.lstFood.Items[i].Selected)

```

```

        x = x + double.Parse(this.lstFood.Items[i].Value);
    for (int i = 0; i < this.lstExtra.Items.Count; i++)
        if (this.lstExtra.Items[i].Selected)
            x = x + double.Parse(this.lstExtra.Items[i].Value);

    this.txtOut.Text = x.ToString();
}

```

### Hotel Example (DB)

|          |                                                                                                                               |                                                                                    |
|----------|-------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Country: | France                                                                                                                        |  |
| Stars:   | *****                                                                                                                         |                                                                                    |
| Where:   | <input checked="" type="radio"/> Sea<br><input type="radio"/> Mountain<br><input type="radio"/> Forest                        |                                                                                    |
| Meals:   | <input checked="" type="checkbox"/> Breakfast<br><input type="checkbox"/> Lunch<br><input checked="" type="checkbox"/> Dinner |                                                                                    |
| Extra:   | TV<br>Pool<br>Kitchen                                                                                                         |                                                                                    |
| How Much | 1000                                                                                                                          |                                                                                    |

FormView -5

```

/           FormView           AdminPlaces.aspx
.           FormView           .Places           /
           FormView           .
                                   .sqlDataSource

```

:AdminPlaces.aspx

| Admin Places                                                    |           |
|-----------------------------------------------------------------|-----------|
| Place:                                                          | Databound |
| Factor:                                                         | Databound |
| <a href="#">Edit</a> <a href="#">Delete</a> <a href="#">New</a> |           |
| 1 2                                                             |           |
| SqlDataSource - SqlDataSourcePlaces                             |           |

```
<%@ Page Language="C#" AutoEventWireup="true"
CodeFile="AdminPlaces.aspx.cs" Inherits="AdminPlaces" %>
```

```

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" >
<head runat="server"><title>Admin Places</title></head>
<body>
<form id="form1" runat="server">
<table style="position: relative">
<tr>
<td colspan="2" style="text-align: center">
<span style="font-size: 16pt">Admin Places</span></td></tr>
<tr>
<td colspan="2">
<asp:FormView ID="FormView1" runat="server" AllowPaging="True"
Caption="Places" CellPadding="4"
DataKeyNames="Place" DataSourceID="SqlDataSourcePlaces" ForeColor="#333333"
Style="position: relative">
<FooterStyle BackColor="#507CD1" Font-Bold="True" ForeColor="White" />
<EditRowStyle BackColor="#2461BF" />
<EditItemTemplate>
Place:
<asp:Label ID="PlaceLabel1" runat="server" Text='<%=# Eval("Place")
%>'></asp:Label><br />
Factor:
<asp:TextBox ID="FactorTextBox" runat="server" Text='<%=# Bind("Factor")
%>'></asp:TextBox><br />
<asp:LinkButton ID="UpdateButton" runat="server" CausesValidation="True"
CommandName="Update"
Text="Update"></asp:LinkButton>
<asp:LinkButton ID="UpdateCancelButton" runat="server"
CausesValidation="False" CommandName="Cancel"
Text="Cancel"></asp:LinkButton></EditItemTemplate>
<RowStyle BackColor="#EFF3FB" />
<PagerStyle BackColor="#2461BF" ForeColor="White" HorizontalAlign="Center"
/>
<InsertItemTemplate>
Place:
<asp:TextBox ID="PlaceTextBox" runat="server" Text='<%=# Bind("Place")
%>'></asp:TextBox><br />
Factor:
<asp:TextBox ID="FactorTextBox" runat="server" Text='<%=# Bind("Factor")
%>'></asp:TextBox><br />
<asp:LinkButton ID="InsertButton" runat="server" CausesValidation="True"
CommandName="Insert"
Text="Insert"></asp:LinkButton>
<asp:LinkButton ID="InsertCancelButton" runat="server"
CausesValidation="False" CommandName="Cancel"
Text="Cancel"></asp:LinkButton></InsertItemTemplate>
<ItemTemplate>Place:
<asp:Label ID="PlaceLabel" runat="server" Text='<%=# Eval("Place")
%>'></asp:Label><br />Factor:
<asp:Label ID="FactorLabel" runat="server" Text='<%=# Bind("Factor")
%>'></asp:Label><br />
<asp:LinkButton ID="EditButton" runat="server" CausesValidation="False"
CommandName="Edit"
Text="Edit"></asp:LinkButton>
<asp:LinkButton ID="DeleteButton" runat="server" CausesValidation="False"
CommandName="Delete"
Text="Delete"></asp:LinkButton>
<asp:LinkButton ID="NewButton" runat="server" CausesValidation="False"
CommandName="New"
Text="New"></asp:LinkButton></ItemTemplate>
<HeaderStyle BackColor="#507CD1" Font-Bold="True" ForeColor="White"
/></asp:FormView>

```

```

<asp:SqlDataSource ID="SqlDataSourcePlaces" runat="server"
ConnectionString="<%$ ConnectionStrings:ConnectionStringHotel %>"
DeleteCommand="DELETE FROM [Places] WHERE [Place] = @Place"
InsertCommand="INSERT INTO [Places] ([Place], [Factor]) VALUES (@Place,
@Factor)"
SelectCommand="SELECT * FROM [Places]" UpdateCommand="UPDATE [Places] SET
[Factor] = @Factor WHERE [Place] = @Place">
<DeleteParameters>
<asp:Parameter Name="Place" Type="String" /></DeleteParameters>
<UpdateParameters><asp:Parameter Name="Factor" Type="Double" />
<asp:Parameter Name="Place" Type="String" /></UpdateParameters>
<InsertParameters>
<asp:Parameter Name="Place" Type="String" />
<asp:Parameter Name="Factor" Type="Double" />
</InsertParameters>
</asp:SqlDataSource></td></tr></table>
<br />
<asp:HyperLink ID="HyperLink1" runat="server" NavigateUrl="~/Default.aspx"
Style="position: relative">Home</asp:HyperLink>
</form>
</body>
</html>

```

## Admin Places

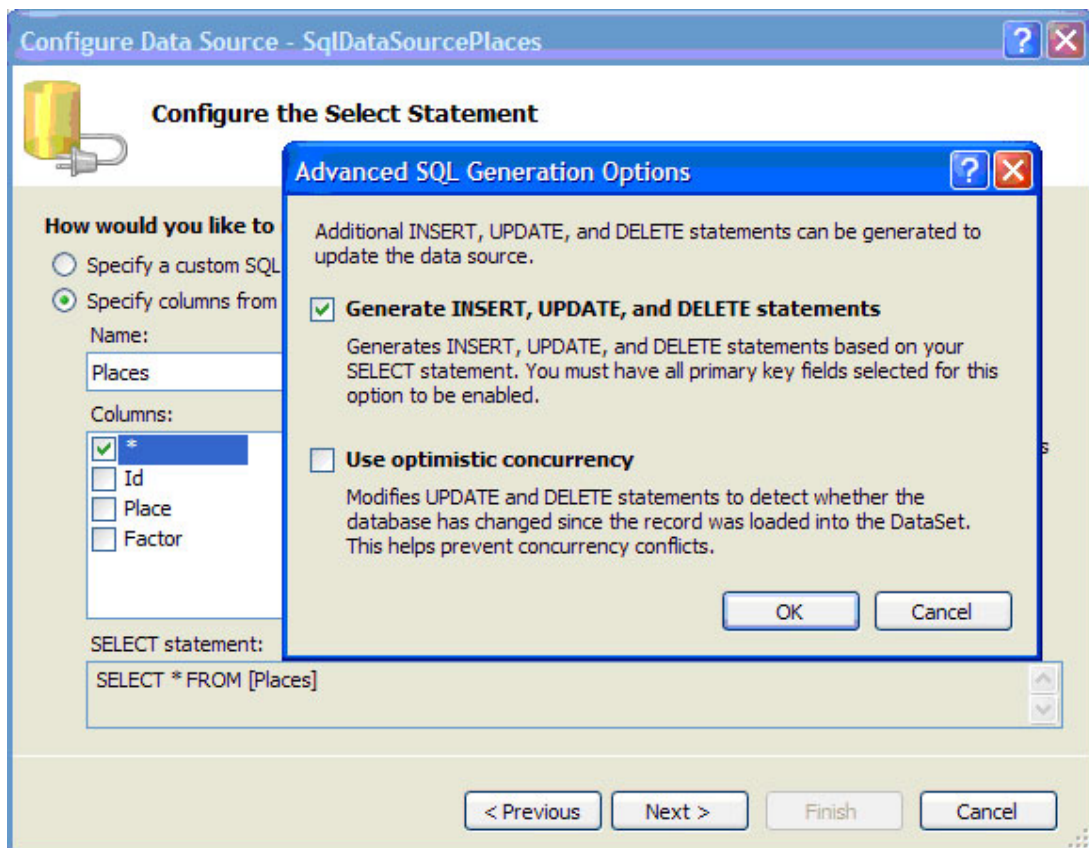
| Places                                                          |
|-----------------------------------------------------------------|
| Place: Sea                                                      |
| Factor: 1.5                                                     |
| <a href="#">Edit</a> <a href="#">Delete</a> <a href="#">New</a> |
| 1 2 3                                                           |

Insert, Update,

Places

sqlDataSource

.Delete



[DetailsView](#)   [GridView](#)   -6

GridView

AdminStars.aspx

.Countries

/ / /

DetailsView

| Admin Stars                                                     |           |           |
|-----------------------------------------------------------------|-----------|-----------|
| Stars                                                           |           |           |
| Star                                                            | Price     |           |
| Select                                                          | Databound | Databound |
| Select                                                          | Databound | Databound |
| Select                                                          | Databound | Databound |
| Select                                                          | Databound | Databound |
| Select                                                          | Databound | Databound |
| Stars Details                                                   |           |           |
| Star                                                            | Databound |           |
| Price                                                           | Databound |           |
| <a href="#">Edit</a> <a href="#">Delete</a> <a href="#">New</a> |           |           |

**SqlDataSource** - SqlDataSourceDetailsStars  
**SqlDataSource** - SqlDataSourceStars

```

<%@ Page Language="C#" AutoEventWireup="true" CodeFile="AdminStars.aspx.cs"
Inherits="AdminStars" %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" >
<head id="Head1" runat="server">
    <title>Admin Stars</title></head>
<body>
    <form id="form1" runat="server">
        <div>&nbsp;<table style="position: relative">
<tr><td colspan="1" style="text-align: center">
Admin Stars</td></tr>
<tr><td style="width: 100px">
&nbsp;<asp:GridView ID="GridViewStars" runat="server"
AutoGenerateColumns="False"
Caption="Stars" CellPadding="4" DataKeyNames="Id"
DataSourceID="SqlDataSourceStars"
ForeColor="#333333" GridLines="None" Style="position: relative">
<FooterStyle BackColor="#507CD1" Font-Bold="True" ForeColor="White" />
<Columns>
<asp:CommandField ShowSelectButton="True" />
<asp:BoundField DataField="Id" HeaderText="Id" InsertVisible="False"
ReadOnly="True" SortExpression="Id" Visible="False" />
<asp:BoundField DataField="Star" HeaderText="Star" SortExpression="Star" />
<asp:BoundField DataField="Price" HeaderText="Price" SortExpression="Price"
/></Columns>
<RowStyle BackColor="#EFF3FB" />
<EditRowStyle BackColor="#2461BF" />
<SelectedRowStyle BackColor="#D1DDF1" Font-Bold="True" ForeColor="#333333"
/>
<PagerStyle BackColor="#2461BF" ForeColor="White" HorizontalAlign="Center"
/>

```

```

<HeaderStyle BackColor="#507CD1" Font-Bold="True" ForeColor="White" />
<AlternatingRowStyle BackColor="White" /></asp:GridView></td></tr>
<tr>
<td style="width: 100px">
&ampnbsp  <asp:DetailsView ID="DetailsViewStars" runat="server"
AutoGenerateRows="False"
Caption="Stars Details" CellPadding="4" DataKeyNames="Id"
DataSourceID="SqlDataSourceDetailsStars"
ForeColor="#333333" GridLines="None" Height="50px" Style="position:
relative"Width="125px">
<FooterStyle BackColor="#507CD1" Font-Bold="True" ForeColor="White" />
<CommandRowStyle BackColor="#D1DDF1" Font-Bold="True" />
<EditRowStyle BackColor="#2461BF" />
<RowStyle BackColor="#EFF3FB" />
<PagerStyle BackColor="#2461BF" ForeColor="White" HorizontalAlign="Center"
/>
<Fields>
<asp:BoundField DataField="Id" HeaderText="Id" InsertVisible="False"
ReadOnly="True"SortExpression="Id" Visible="False" />
<asp:BoundField DataField="Star" HeaderText="Star" SortExpression="Star" />
<asp:BoundField DataField="Price" HeaderText="Price" SortExpression="Price"
/>
<asp:CommandField ShowDeleteButton="True" ShowEditButton="True"
ShowInsertButton="True" /></Fields>
<FieldHeaderStyle BackColor="#DEE8F5" Font-Bold="True" />
<HeaderStyle BackColor="#507CD1" Font-Bold="True" ForeColor="White" />
<AlternatingRowStyle BackColor="White" /></asp:DetailsView>
</td></tr></table>
<asp:SqlDataSource ID="SqlDataSourceDetailsStars" runat="server"
ConnectionString="<%"$ ConnectionStrings:ConnectionStringHotel %>"
DeleteCommand="DELETE FROM [Stars] WHERE [Id] = @Id" InsertCommand="INSERT
INTO [Stars] ([Star], [Price]) VALUES (@Star, @Price)"
SelectCommand="SELECT * FROM [Stars] WHERE ([Id] = @Id)"
UpdateCommand="UPDATE [Stars] SET [Star] = @Star, [Price] = @Price WHERE
[Id] = @Id">
<DeleteParameters>
<asp:Parameter Name="Id" Type="Int32" /></DeleteParameters>
<UpdateParameters>
<asp:Parameter Name="Star" Type="String" />
<asp:Parameter Name="Price" Type="Double" />
<asp:Parameter Name="Id" Type="Int32" /></UpdateParameters>
<SelectParameters>
<asp:ControlParameter ControlID="GridViewStars" Name="Id"
PropertyName="SelectedValue"Type="Int32" /></SelectParameters>
<InsertParameters>
<asp:Parameter Name="Star" Type="String" />
<asp:Parameter Name="Price" Type="Double" /></InsertParameters>
</asp:SqlDataSource>
<asp:SqlDataSource ID="SqlDataSourceStars" runat="server"
ConnectionString="<%"$ ConnectionStrings:ConnectionStringHotel %>"
SelectCommand="SELECT * FROM [Stars]">
</asp:SqlDataSource><br />
</div></form></body></html>

```

```

) . GridView
DetailsView .(
. / /
DetailsView
.Stars GridView : .GridView

```

Stars

DetailsView

.GridView

The wizard has detected one or more parameters in your SELECT statement. For each parameter in the SELECT statement, choose a source for the parameter's value.

Parameters:

| Na... | Value                       |
|-------|-----------------------------|
| Id    | GridViewStars.SelectedValue |

Parameter source: Control

ControlID: GridViewStars

DefaultValue:

[Show advanced properties](#)

SELECT statement:

```
SELECT * FROM [Stars] WHERE ([Id] = @Id)
```

< Previous Next > Finish Cancel

/ /

GridView

.DataBind()

DetailsView

.DetailsView

```
protected void DetailsViewStars_ItemInserted(object sender,
DetailsViewInsertedEventArgs e)
{this.GridViewStars.DataBind(); }
protected void DetailsViewStars_ItemUpdated(object sender,
DetailsViewUpdatedEventArgs e)
{this.GridViewStars.DataBind(); }
protected void DetailsViewStars_ItemDeleted(object sender,
DetailsViewDeletedEventArgs e)
{this.GridViewStars.DataBind(); }
```

## Admin Stars

| Stars                  |       |       |
|------------------------|-------|-------|
|                        | Star  | Price |
| <a href="#">Select</a> | *     | 100   |
| <a href="#">Select</a> | **    | 200   |
| <a href="#">Select</a> | ***   | 300   |
| <a href="#">Select</a> | ****  | 500   |
| <a href="#">Select</a> | ***** | 500   |

| Stars Details                                                   |     |
|-----------------------------------------------------------------|-----|
| Star                                                            | *** |
| Price                                                           | 300 |
| <a href="#">Edit</a> <a href="#">Delete</a> <a href="#">New</a> |     |

-7

Meals

AdminMeals.aspx

.sqlDataSource

GridView

**Admin Meals**

| Meal                                               | Price                     |
|----------------------------------------------------|---------------------------|
| <a href="#">Databound</a>                          | <a href="#">Databound</a> |
| <a href="#">Databound</a>                          | <a href="#">Databound</a> |
| <a href="#">Databound</a>                          | <a href="#">Databound</a> |
| <a href="#">Databound</a>                          | <a href="#">Databound</a> |
| <a href="#">Databound</a>                          | <a href="#">Databound</a> |
| <a href="#">SqlDataSource - SqlDataSourceMeals</a> |                           |

[Add New](#)

|                                    |                                       |
|------------------------------------|---------------------------------------|
| Meal                               | <input type="text"/>                  |
| Price                              | <input type="text"/>                  |
| <input type="button" value="Add"/> | <input type="button" value="Cancel"/> |

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="AdminMeals.aspx.cs"
Inherits="AdminMeals" %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" >
<head id="Head1" runat="server">
<title>Admin Meals</title></head>
<body>
<form id="form1" runat="server">
<div><table style="position: relative">
<tr>
```

```

<td colspan="3">
<strong><span style="font-size: 16pt; color: #0000cc">Admin
Meals</span></strong></td></tr>
<tr><td colspan="3"></td></tr>
<tr><td colspan="3">
<asp:GridView ID="grdMeals" runat="server" AutoGenerateColumns="False"
CellPadding="4"
DataKeyNames="Id" DataSourceID="SqlDataSourceMeals" ForeColor="#333333"
GridLines="None"
Style="position: relative">
<FooterStyle BackColor="#507CD1" Font-Bold="True" ForeColor="White" />
<Columns>
<asp:CommandField ButtonType="Image" DeleteImageUrl="~/Images/delete.gif"
EditImageUrl="~/Images/edit.gif"
ShowDeleteButton="True" ShowEditButton="True"
CancelImageUrl="~/Images/cancel.gif" UpdateImageUrl="~/Images/update.gif"
/>
<asp:BoundField DataField="Id" HeaderText="Id" InsertVisible="False"
ReadOnly="True"
SortExpression="Id" Visible="False" />
<asp:BoundField DataField="Meal" HeaderText="Meal" SortExpression="Meal" />
<asp:BoundField DataField="Price" HeaderText="Price" SortExpression="Price"
/></Columns>
<RowStyle BackColor="#EFF3FB" />
<EditRowStyle BackColor="#2461BF" />
<SelectedRowStyle BackColor="#D1DDF1" Font-Bold="True" ForeColor="#333333"
/>
<PagerStyle BackColor="#2461BF" ForeColor="White" HorizontalAlign="Center"
/>
<HeaderStyle BackColor="#507CD1" Font-Bold="True" ForeColor="White" />
<AlternatingRowStyle BackColor="White" /></asp:GridView>
<asp:SqlDataSource ID="SqlDataSourceMeals" runat="server"
ConnectionString="<%$ ConnectionStrings:ConnectionStringHotel %>"
DeleteCommand="DELETE FROM [Meals] WHERE [Id] = @Id" InsertCommand="INSERT
INTO [Meals] ([Meal], [Price]) VALUES (@Meal, @Price)"
SelectCommand="SELECT * FROM [Meals]" UpdateCommand="UPDATE [Meals] SET
[Meal] = @Meal, [Price] = @Price WHERE [Id] = @Id">
<DeleteParameters>
<asp:Parameter Name="Id" Type="Int32" /></DeleteParameters>
<UpdateParameters>
<asp:Parameter Name="Meal" Type="String" />
<asp:Parameter Name="Price" Type="Decimal" />
<asp:Parameter Name="Id" Type="Int32" /></UpdateParameters>
<InsertParameters>
<asp:ControlParameter ControlID="txtMeal" Name="Meal" PropertyName="Text"
Type="String" />
<asp:ControlParameter ControlID="txtPrice" Name="Price" PropertyName="Text"
Type="Decimal" /></InsertParameters>
</asp:SqlDataSource></td></tr>
<tr><td style="width: 100px">
<asp:LinkButton ID="btnAdd" runat="server" Style="position: relative"
OnClick="btnAdd_Click">Add New</asp:LinkButton></td>
<td style="width: 100px"></td>
<td style="width: 100px"></td></tr>
<tr><td colspan="3">
<asp:Panel ID="panelMeal" runat="server" Height="50px" Style="left: 0px;
position: relative;top: 0px" Visible="False" Width="192px">
<table border="1" style="position: relative">
<tr><td style="width: 100px">Meal</td>
<td style="width: 112px">
<asp:TextBox ID="txtMeal" runat="server" Style="position: relative; left:
0px; top: 0px;"></asp:TextBox>
<asp:RequiredFieldValidator ID="RequiredFieldValidator1" runat="server"
ControlToValidate="txtMeal"

```

```

ErrorMessage="Extra cannot be blank" Style="position: relative"
ToolTip="Extra cannot be blank">*</asp:RequiredFieldValidator></td></tr>
<tr>
<td style="width: 100px">Price</td>
<td style="width: 112px">
<asp:TextBox ID="txtPrice" runat="server" Style="position:
relative">0</asp:TextBox>
<asp:CompareValidator ID="CompareValidator1" runat="server"
ControlToValidate="txtPrice"Operator="DataTypeCheck" Style="position:
relative" ToolTip="Price must be number"
Type="Currency">*</asp:CompareValidator></td></tr>
<tr><td colspan="2">
<asp:Label ID="lblOut" runat="server" Style="position:
relative"></asp:Label></td></tr>
<tr><td colspan="2">
<asp:Button ID="btnAddExtra" runat="server" Style="position: relative"
Text="Add" OnClick="btnAddExtra_Click" />
<asp:Button ID="btnCancel" runat="server" CausesValidation="False"
Style="position: relative"
Text="Cancel" OnClick="btnCancel_Click" /></td></tr></table>
</asp:Panel></td></tr></table></div>
</form></body></html>

```

InsertQuery

Command and Parameter Editor

INSERT command:

```
INSERT INTO [Meals] ([Meal], [Price]) VALUES (@Meal, @Price)
```

Refresh Parameters Query Builder...

Parameters:

| Name  | Value         |
|-------|---------------|
| Meal  | txtMeal.Text  |
| Price | txtPrice.Text |

Add Parameter

Parameter source:

Control

ControlID: txtMeal

DefaultValue:

Show advanced properties

OK Cancel

:Add

```

protected void btnAddExtra_Click(object sender, EventArgs e)
{
    SqlDataSourceMeals.Insert();
    txtMeal.Text = "";
    txtPrice.Text = "";
}

```

```

        grdMeals.DataBind();
        this.panelMeal.Visible = false;
    }

```

## Admin Meals

|                                                                                     | Meal      | Price    |
|-------------------------------------------------------------------------------------|-----------|----------|
|  X | Breakfast | 50.0000  |
|  X | Lunch     | 100.0000 |
|  X | Dinner    | 200.0000 |

### Add New

|                                                                          |                                |
|--------------------------------------------------------------------------|--------------------------------|
| Meal                                                                     | <input type="text"/>           |
| Price                                                                    | <input type="text" value="0"/> |
| <input type="button" value="Add"/> <input type="button" value="Cancel"/> |                                |

-8

Select )

.(Update Delete Insert

SQL Server

.System.Data.SqlClient System.Data

:

using System.Data;  
using System.Data.SqlClient;

SqlConnection -9

SqlCommand

ConnectionString

Open()

Close()

SqlCommand -10

SqlDataReader

SqlConnection

Stored

SQL

SqlCommand

.SqlDataAdapter

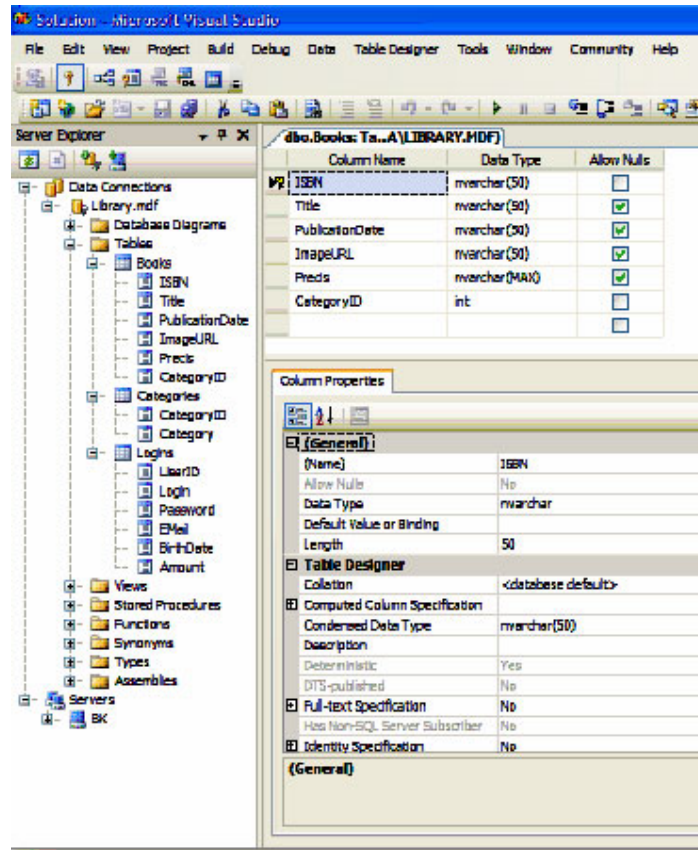
)

Procedures

```

(SqlDataAdapter SqlDataReader
:
CommandText :ExecuteReader -1
.
:ExecuteNonQuery -2
(Delete Update Insert ) CommandText
.
CommandText :ExecuteScalar -3
.
SqlDataReader -11
:
false . :Read -1
.
."ColName" :GetOrdinal("ColName") -2
. index :GetString (index) -3
.2
) SQL Server Express Library.mdf
: .(.NET 2005
Books -1
Categories -2
Logins -3
.

```



(Data Reader 1)

ExecuteQuery

Select

.DataReader

```
protected void Button3_Click(object sender, EventArgs e)
{
    String ConStr ;
    ConStr = "Data
Source=.\SQLEXPRESS;AttachDbFilename=|DataDirectory|\\Library.mdf;Integrated Security=True;User Instance=True";

    SqlConnection sqlCON = new SqlConnection();
    sqlCON.ConnectionString = ConStr;

    SqlCommand MySelectCommand = new SqlCommand();
    MySelectCommand.Connection = sqlCON;

    String sql ;
    sql = "SELECT * FROM Books";

    MySelectCommand.CommandText = sql;

    SqlDataReader DReader ;

    sqlCON.Open();
    // Execute the SqlCommand and get the SqlDataReader.
```

```

DReader = MySelectCommand.ExecuteReader();
this.ListBox1.Items.Clear();
String s;
int i;
while (DReader.Read())
{
    i = DReader.GetOrdinal("Title");
    s = DReader.GetString(i);
    this.ListBox1.Items.Add(s);
}
DReader.Close();
sqlCON.Close();
}

```

Books Titles:

Beginning ASP 3.0  
Windows for Dummies  
Word for Dummies  
Excel for Dummies

Data Reader 1

Data Reader 2

ExecuteScalar

ExecuteNonQuery

Clear

DataSource

DataBind()

DataTextField

:Data Reader 2

```

protected void Button1_Click(object sender, EventArgs e)
{
    String ConStr ;
    ConStr = "Data
Source=.\SQLEXPRESS;AttachDbFilename=|DataDirectory|\\Library.mdf;Integrat
ed Security=True;User Instance=True";

    SqlConnection sqlCON = new SqlConnection();
    sqlCON.ConnectionString = ConStr;
}

```

```

SqlCommand MySelectCommand = new SqlCommand();
MySelectCommand.Connection = sqlCON;

String sql ;
sql = "SELECT * FROM Books";

MySelectCommand.CommandText = sql;

SqlDataReader DReader ;

sqlCON.Open();
// Execute the SqlCommand and get the SqlDataReader.
DReader = MySelectCommand.ExecuteReader();
this.ListBox1.DataSource = DReader;
this.ListBox1.DataTextField = "Title";
this.ListBox1.DataBind();

DReader.Close();
sqlCON.Close();
}

```

Books Titles:

Beginning ASP 3.0  
Windows for Dummies  
Word for Dummies  
Excel for Dummies

Data Reader 1

Data Reader 2

ExecuteScalar

ExecuteNonQuery

Clear

:

ExecuteScalar

```

protected void Button5_Click(object sender, EventArgs e)
{
    String ConStr ;
    ConStr = "Data
Source=.\SQLEXPRESS;AttachDbFilename=|DataDirectory|\\Library.mdf;Integrat
ed Security=True;User Instance=True";
}

```

```

SqlConnection sqlCON = new SqlConnection();
sqlCON.ConnectionString = ConStr;

SqlCommand MySelectCommand = new SqlCommand();
MySelectCommand.Connection = sqlCON;

String sql ;
sql = "SELECT count(*) FROM Books";

MySelectCommand.CommandText = sql;

sqlCON.Open();

int nL = int.Parse(MySelectCommand.ExecuteScalar().ToString());

Label2.Text = nL.ToString() + " Books ";
sqlCON.Close();
}

```

Books Titles:

Beginning ASP 3.0  
Windows for Dummies  
Word for Dummies  
Excel for Dummies

4 Books

Data Reader 1

Data Reader 2

ExecuteScalar

ExecuteNonQuery

Clear

ExecuteNonQuery

:

```

protected void Button2_Click(object sender, EventArgs e)
{
    String ConStr ;
    ConStr = "Data
Source=.\SQLEXPRESS;AttachDbFilename=|DataDirectory|\\Library.mdf;Integrat
ed Security=True;User Instance=True";

    SqlConnection sqlCON = new SqlConnection();

```

```

sqlCON.ConnectionString = ConStr;

SqlCommand MySelectCommand = new SqlCommand();
MySelectCommand.Connection = sqlCON;

String sql ;
sql = "Update Books set CategoryId=1";

MySelectCommand.CommandText = sql;

sqlCON.Open();

int nL= int.Parse( MySelectCommand.ExecuteNonQuery().ToString());
Label2.Text = nL.ToString() + " Records has been updated ";
sqlCON.Close();
}

```

Books Titles:

Beginning ASP 3.0  
Windows for Dummies  
Word for Dummies  
Excel for Dummies

4 Records has been updated

Data Reader 1

Data Reader 2

ExecuteScalar

ExecuteNonQuery

Clear

: .aspx

```

<%@ Page Language="C#" AutoEventWireup="true" CodeFile="DataReader.aspx.cs"
Inherits="DBCon" %>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml" >
<head runat="server">
<title>Untitled Page</title>
</head>
<body>
<form id="form1" runat="server">

```

```

<asp:Button ID="Button1" runat="server" OnClick="Button1_Click"
Style="z-index: 100;
left: 80px; position: absolute; top: 350px" Text="Data Reader
2" Width="192px" />
<asp:ListBox ID="ListBox1" runat="server" Height="184px" Style="z-
index: 101; left: 80px;
position: absolute; top: 80px" Width="193px"></asp:ListBox>
<asp:Button ID="Button3" runat="server" OnClick="Button3_Click"
Style="z-index: 102;
left: 80px; position: absolute; top: 312px" Text="Data Reader
1" Width="192px" />
<asp:Button ID="Button4" runat="server" OnClick="Button4_Click"
Style="z-index: 103;
left: 80px; position: absolute; top: 472px" Text="Clear"
Width="192px" />
<asp:Label ID="Label1" runat="server" Style="z-index: 104; left:
80px; position: absolute;
top: 48px" Text="Books Titles:" Width="184px"></asp:Label>
<asp:Button ID="Button2" runat="server" Style="z-index: 102;
left: 72px; position: relative; top: 416px"
Text="ExecuteNonQuery" Width="192px" OnClick="Button2_Click" />
<asp:Button ID="Button5" runat="server" Style="z-index: 102;
left: -126px; position: relative; top: 376px"
Text="ExecuteScalar" Width="192px" OnClick="Button5_Click" />
<asp:Label ID="Label2" runat="server" Style="left: -318px;
position: relative; top: 256px"
Width="184px"></asp:Label>
</form>
</body>
</html>

```

Repeater

-1

Repeater

.Repeater

Search By Category: Computer

*Search Results:*



**Visual C# 2005 How to Program**  
 ISBN: 0784544020  
 Published: February 2005  
 This book is for beginners who have no previous experience



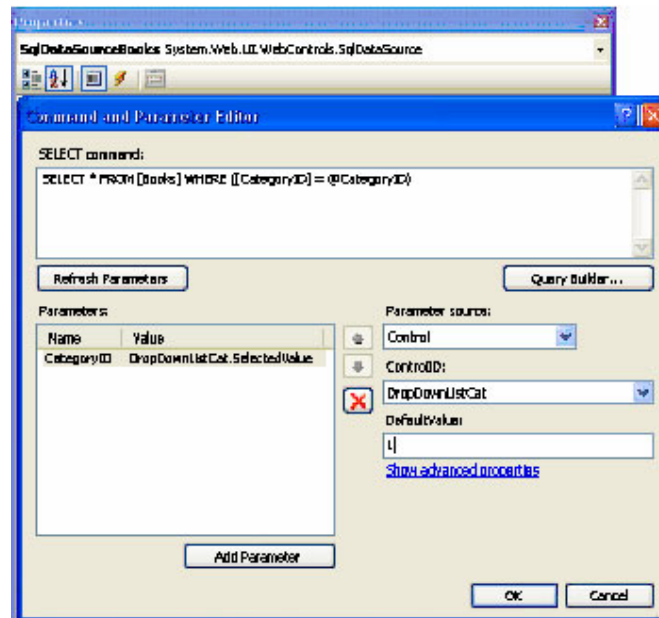
**Artificial Intelligence: A Modern Approach**  
 ISBN: 0784543836  
 Published: July 2006  
 This is a great book. Most widely used in U.S. universities

For more information visit: <http://www.yvonneonline.org>

DropDownListCat

Where

Repeater



: .aspx Repeater

HeaderTemplate -1

FooterTemplate -2

ItemTemplate -3

SeparatorTemplate -4

:.aspx

```
<%@ Page Language="C#" AutoEventWireup="true"
CodeFile="BooksRepeater.aspx.cs" Inherits="BooksRepeater" %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" >
<head id="Head1" runat="server">
    <title>Books Repeater</title>

    <style type="text/css">
.rHead {font-family:Lucida Handwriting,Comic Sans MS,Tahoma,Arial;
font-size:16pt; font-weight:bold; padding:8px; color:green}
.rItem {font-family:Lucida Handwriting,Comic Sans MS,Tahoma,Arial,sans-
serif;
font-size:10pt}
.rFoot {font-family:Lucida Handwriting,Comic Sans MS,Tahoma,Arial;
font-size:10pt; font-weight:bold; padding:8px; color:green}
</style>
</head>
<body>
<form id="form1" runat="server">
<div>
```

```

<strong><span style="font-size: 14pt; color: #0000cc">
Search By Category:</span></strong>
<asp:DropDownList ID="DropDownListCat" runat="server"
DataSourceID="SqlDataSourceCat"
    DataTextField="Category" DataValueField="CategoryID"
Style="position: relative" AutoPostBack="True" Font-Bold="True" Font-
Names="Tw Cen MT Condensed" Font-Size="Larger" ForeColor="DarkBlue">
</asp:DropDownList><asp:SqlDataSource ID="SqlDataSourceCat"
runat="server" ConnectionString="<%"$
ConnectionStrings:LibraryConnectionString %>"
    SelectCommand="SELECT * FROM [Categories]"></asp:SqlDataSource>
<br />
</div>
<div>

<asp:Repeater ID="Repeater1" runat="server"
DataSourceID="SqlDataSourceBooks">

<HeaderTemplate>
<div class="rHead">
Search Results: <br />

</div>
</HeaderTemplate>

<ItemTemplate>
<div class="rItem">
<a href="BooksForm.aspx?ISBN=<%"# DataBinder.Eval(Container.DataItem,
"ISBN")%>" >
    <input type="image"
        src="images/<%"# DataBinder.Eval(Container.DataItem, "ImageUrl")%>"
/>
</a>

<b><%"# DataBinder.Eval(Container.DataItem, "Title")%></b><br/>
ISBN: <%"# DataBinder.Eval(Container.DataItem, "ISBN")%> <br/>
Published: <%"# DataBinder.Eval(Container.DataItem, "PublicationDate")%><br/>
<%"# DataBinder.Eval(Container.DataItem, "Precis")%>
</div><br/>
</ItemTemplate>

<SeparatorTemplate>

</SeparatorTemplate>

<FooterTemplate>

<div class="rFoot">
For more information visit
    <a href="http://www.svuonline.org">http://www.svuonline.org</a>
</div>
</FooterTemplate>

</asp:Repeater>

</div>
<asp:SqlDataSource ID="SqlDataSourceBooks" runat="server"
    ConnectionString="<%"$ ConnectionStrings:LibraryConnectionString %>"
    SelectCommand="SELECT * FROM [Books] WHERE ([CategoryID] = @CategoryID)">
    <SelectParameters>

```

```

<asp:ControlParameter ControlID="DropDownListCat" DefaultValue="1"
Name="CategoryID"
    PropertyName="SelectedValue" Type="Int32" />
</SelectParameters>
</asp:SqlDataSource>
    &nbsp;
</form>
</body>
</html>

```

BooksForm.aspx

ISBN

FormView

SqlDataAdapter -2

.sqlDataSet sqlCommand

SelectCommand, InsertCommand, :

.UpdateCommand, DeleteCommand

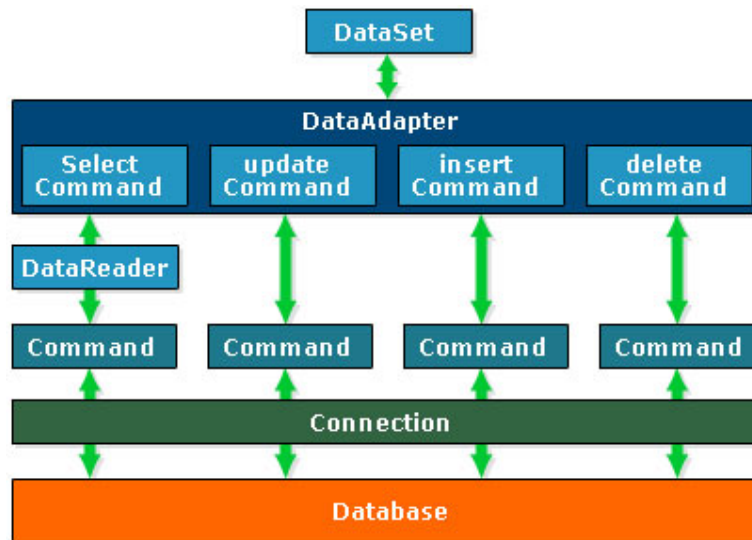
:

.sqlDataSet SelectCommand :Fill -1

InsertCommand, DeleteCommand, :Update -2

DataSet UpdateCommand

SqlDataSet -3



DataAdapter : -4

Select, Insert, Update, DataAdapter  
 .DataSet Fill() .Delete  
 ( )  
 .Update  
 DataSource GridView  
 .DataBind()

```

protected void Button5_Click(object sender, EventArgs e)
{
    String ConStr ;
    ConStr = "Data
    Source=.\SQLEXPRESS;AttachDbFilename=|DataDirectory|\\Library.mdf;Integrat
    ed Security=True;User Instance=True";

    SqlConnection sqlCON = new SqlConnection();
    sqlCON.ConnectionString = ConStr;

    SqlCommand SelectCom = new SqlCommand();
    SqlCommand UpCom = new SqlCommand();
    SqlCommand InsertCom = new SqlCommand();
    SqlCommand DelCom = new SqlCommand();

    SelectCom.Connection = sqlCON;
    UpCom.Connection = sqlCON;
    InsertCom.Connection = sqlCON;
    DelCom.Connection = sqlCON;

    SelectCom.CommandText = "Select * from Logins";

    UpCom.CommandText = "UPDATE [Logins] SET [Login] = @Login, [Password] =
    @Password, [BirthDate] = @BirthDate, [Amount] = @Amount, [EMail] = @EMail
    WHERE [UserID] = @UserID";
    UpCom.Parameters.Add("@Login", SqlDbType.VarChar, 5, "Login");
    UpCom.Parameters.Add("@Password", SqlDbType.VarChar, 100, "Password");
    UpCom.Parameters.Add("@BirthDate", SqlDbType.DateTime, 100, "BirthDate");
  
```

```

UpCom.Parameters.Add("@Amount", SqlDbType.Int, 100, "Amount");
UpCom.Parameters.Add("@EMail", SqlDbType.VarChar, 100, "EMail");
UpCom.Parameters.Add("@UserId", SqlDbType.Int, 100, "UserId");

InsertCom.CommandText = "INSERT INTO [Logins] ([Login], [Password],
[BirthDate], [Amount], [EMail]) VALUES (@Login, @Password, @BirthDate,
@Amount, @EMail)";
InsertCom.Parameters.Add("@Login", SqlDbType.VarChar, 5, "Login");
InsertCom.Parameters.Add("@Password", SqlDbType.VarChar, 100, "Password");
InsertCom.Parameters.Add("@BirthDate", SqlDbType.DateTime, 100,
"BirthDate");
InsertCom.Parameters.Add("@Amount", SqlDbType.Int, 100, "Amount");
InsertCom.Parameters.Add("@EMail", SqlDbType.VarChar, 100, "EMail");

DelCom.CommandText = "Delete from [Logins] WHERE [UserID] = @UserID";
DelCom.Parameters.Add("@UserId", SqlDbType.Int, 100, "UserId");

SqlDataAdapter DBAdapter= new SqlDataAdapter() ;
DataSet ResultsDataSet = new DataSet();

DBAdapter.SelectCommand = SelectCom;
DBAdapter.UpdateCommand = UpCom;
DBAdapter.InsertCommand = InsertCom;
DBAdapter.DeleteCommand = DelCom;

DBAdapter.Fill(ResultsDataSet);

for (int i = 0 ; i<= ResultsDataSet.Tables[0].Rows.Count - 1;i++)
    ResultsDataSet.Tables[0].Rows[i].ItemArray[5] = i * 1000;

ResultsDataSet.Tables[0].Rows.Add(2, "tata", "789");
ResultsDataSet.Tables[0].Rows[0].Delete();

DBAdapter.Update(ResultsDataSet);

sqlCON.Close();

this.GridView1.DataSource = ResultsDataSet;
this.GridView1.DataBind();
}

```

| UserID | Login | Password | EMail         | BirthDate            | Amount    |
|--------|-------|----------|---------------|----------------------|-----------|
| 10     | titi  | 456      | titi@titi.com | 9/9/1990 12:00:00 AM | 2000.0000 |
| 2      | tata  | 789      |               |                      |           |

DataAdapter

: .aspx

```

<%@ Page Language="C#" AutoEventWireup="true"
CodeFile="DataAdapter.aspx.cs" Inherits="DR" %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" >

```

```

<head runat="server">
    <title>Untitled Page</title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <asp:Button ID="Button5" runat="server" Height="48px"
OnClick="Button5_Click" Style="z-index: 100;
            left: 168px; position: absolute; top: 240px" Text="DataAdapter"
Width="177px" />
            <asp:GridView ID="GridView1" runat="server" Style="z-index: 102;
left: 32px; position: absolute;
            top: 96px" Width="504px">
                </asp:GridView>
        </div>
    </form>
</body>
</html>

```

.3

.SQL Server Express

Guestbook.mdf

:Messages

.Messages

| Messages: Qu...UESTBOOK.MDF) |         |           |                 |                           |                       |
|------------------------------|---------|-----------|-----------------|---------------------------|-----------------------|
|                              | Mess... | Date      | Name            | Email                     | Message               |
|                              | 3       | 5/17/2007 | Bassel ALKHATIB | t_balkhatib@svuonline.org | Great site!           |
| ▶                            | 4       | 5/17/2007 | Sue Black       | sblack@svuonline.org      | I love the site! K... |
|                              | 10      | 5/18/2007 | Liz White       | lwhite@svuonline.org      | Very useful infor...  |
| *                            | NULL    | NULL      | NULL            | NULL                      | NULL                  |

Guestbook.aspx

Please leave a message in our guestbook:

Your name:

Your e-mail address:

Tell the world:

Submit

Clear

Date

Name

Email

Message

abc

abc

abc

abc

abc

abc

abc

abc

abc

abc

abc

abc

abc

abc

abc

abc

abc

abc

abc

abc

SqlDataSource - messagesSqlDataSource

sqlDataSourceMessagesSqlDataSource

.( ) Configure Data Source

42

Configure Data Source - messagesSqlDataSource

**Define Custom Statements or Stored Procedures**

Click a tab to create a SQL statement for that operation.

**SELECT** UPDATE INSERT DELETE

☒ SQL statement:

```
SELECT * FROM [Messages]
```

Query Builder...

☐ Stored procedure:

< Previous Next > Finish Cancel

Configure Data Source - messagesSqlDataSource

**Define Custom Statements or Stored Procedures**

Click a tab to create a SQL statement for that operation.

SELECT **UPDATE** INSERT DELETE

☒ SQL statement:

```
INSERT INTO [Messages]  
([Date], [Name], [Email], [Message]) VALUES  
(@Date, @Name, @Email, @Message)
```

Query Builder...

☐ Stored procedure:

< Previous Next > Finish Cancel

)

.(MessagesSqlDataSource

InsertQuery

Command and Parameter Editor

INSERT command:

```
INSERT INTO [Messages]
([Date], [Name], [Email], [Message]) VALUES
(@Date, @Name, @Email, @Message)
```

Refresh Parameters

Query Builder...

Parameters:

| Name    | Value               |
|---------|---------------------|
| Date    |                     |
| Name    | nameTextBox.Text    |
| Email   | emailTextBox.Text   |
| Message | messageTextBox.Text |

Add Parameter

Parameter source:

None

DefaultValue:

Show advanced properties

OK Cancel

.(

@Date

)

:

```
<!-- Guestbook.aspx --%>
<!-- Guestbook Web application with a form for users to submit --%>
<!-- guestbook entires and a GridView to view existing entries. --%>
<%@ Page Language="C#" AutoEventWireup="true"
    CodeFile="Guestbook.aspx.cs" Inherits="Guestbook" %>

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN"
    "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">

<html xmlns="http://www.w3.org/1999/xhtml" >
  <head runat="server">
    <title>Guestbook</title>
  </head>
  <body>
    <form id="form1" runat="server">
      <div>
        <h2><span style="color: navy">
          Please leave a message in our guestbook:</span></h2>

        <table>
          <tr>
            <td style="width: 130px; height: 21px;"
              valign="top">
              Your name:<br />
            </td>
```

```
  |
```

```

        </Columns>
    </asp:GridView>

    <asp:SqlDataSource ID="messagesSqlDataSource"
        runat="server"
        ConnectionString=
            "<%= $ConnectionString:GuestbookConnectionString %>"
        SelectCommand="SELECT * FROM [Messages]"
        DeleteCommand="DELETE FROM [Messages] WHERE
            [MessageID] = @original_MessageID"
        InsertCommand="INSERT INTO [Messages]
            ([Date], [Name], [Email], [Message]) VALUES
            (@Date, @Name, @Email, @Message)"
        UpdateCommand="UPDATE [Messages] SET [Date] = @Date,
            [Name] = @Name, [Email] = @Email, [Message] = @Message
            WHERE [MessageID] = @original_MessageID">
        <DeleteParameters>
            <asp:Parameter Name="original_MessageID"
                Type="Int32" />
        </DeleteParameters>
        <UpdateParameters>
            <asp:Parameter Name="Date" Type="String" />
            <asp:Parameter Name="Name" Type="String" />
            <asp:Parameter Name="Email" Type="String" />
            <asp:Parameter Name="Message" Type="String" />
            <asp:Parameter Name="original_MessageID"
                Type="Int32" />
        </UpdateParameters>
        <InsertParameters>
            <asp:Parameter Name="Date" Type="String" />
            <asp:ControlParameter ControlID="nameTextBox"
                Name="Name" PropertyName="Text" Type="String" />
            <asp:ControlParameter ControlID="emailTextBox"
                Name="Email" PropertyName="Text" Type="String" />
            <asp:ControlParameter ControlID="messageTextBox"
                Name="Message" PropertyName="Text" Type="String" />
        </InsertParameters>
    </asp:SqlDataSource>
</div>
</form>
</body>
</html>

```

```

// Guestbook.aspx.cs
// Code-behind file that defines event handlers for the guestbook.
using System;
using System.Data;
using System.Configuration;
using System.Web;
using System.Web.Security;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Web.UI.WebControls.WebParts;
using System.Web.UI.HtmlControls;

public partial class Guestbook : System.Web.UI.Page
{
    // Submit Button adds a new guestbook entry to the database,
    // clears the form and displays the updated list of guestbook entries
    protected void submitButton_Click( object sender, EventArgs e )
    {
        // create a date parameter to store the current date
    }
}

```

```

System.Web.UI.WebControls.Parameter date =
    new System.Web.UI.WebControls.Parameter(
        "Date", TypeCode.String, DateTime.Now.ToShortDateString() );

// set the @Date parameter to the date parameter

messagesSqlDataSource.InsertParameters.RemoveAt( 0 );
messagesSqlDataSource.InsertParameters.Add( date );

// execute an INSERT SQL statement to add a new row to the
// Messages table in the Guestbook database that contains the
// current date and the user's name, e-mail address and message
messagesSqlDataSource.Insert();

// clear the TextBoxes
nameTextBox.Text = "";
emailTextBox.Text = "";
messageTextBox.Text = "";

// update the GridView with the new database table contents
messagesGridView.DataBind();
} // end method submitButton_Click

// Clear Button clears the Web Form's TextBoxes
protected void clearButton_Click( object sender, EventArgs e )
{
    nameTextBox.Text = "";
    emailTextBox.Text = "";
    messageTextBox.Text = "";
} // end method clearButton_Click
} // end class Guestbook

```

## Please leave a message in our guestbook:

Your name:

Your e-mail address:

Tell the world:

| Date      | Name            | Email                     | Message                                         |
|-----------|-----------------|---------------------------|-------------------------------------------------|
| 5/17/2007 | Bassel ALKHATIB | t_balkhatib@svuonline.org | Great site!                                     |
| 5/17/2007 | Sue Black       | sblack@svuonline.org      | I love the site! Keep up the good work!         |
| 5/18/2007 | Liz White       | lwhite@svuonline.org      | Very useful information. Will visit again soon. |