

Validation Controls

Introduction

- The validation controls are responsible for emitting client side Java Script for the purpose of form validation.
- The available validation controls include the following:
CompareValidator, CustomValidator, RangeValidator,
RegularExpressionValidator,
RequiredFieldValidator **and** ValidationSummary.

The BaseValidator Class

- **The `System.Web.UI.WebControls.BaseValidator` class** is the common base class from which the validation controls derive.

The RequiredFieldValidator Class

- Instantiating the `RequiredFieldValidator` class we shall get a validation control that ensures the user has entered some input into the control it governs.

The RequiredFieldValidator Class

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs"
Inherits="WebApplication29.WebForm1" %>
```

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

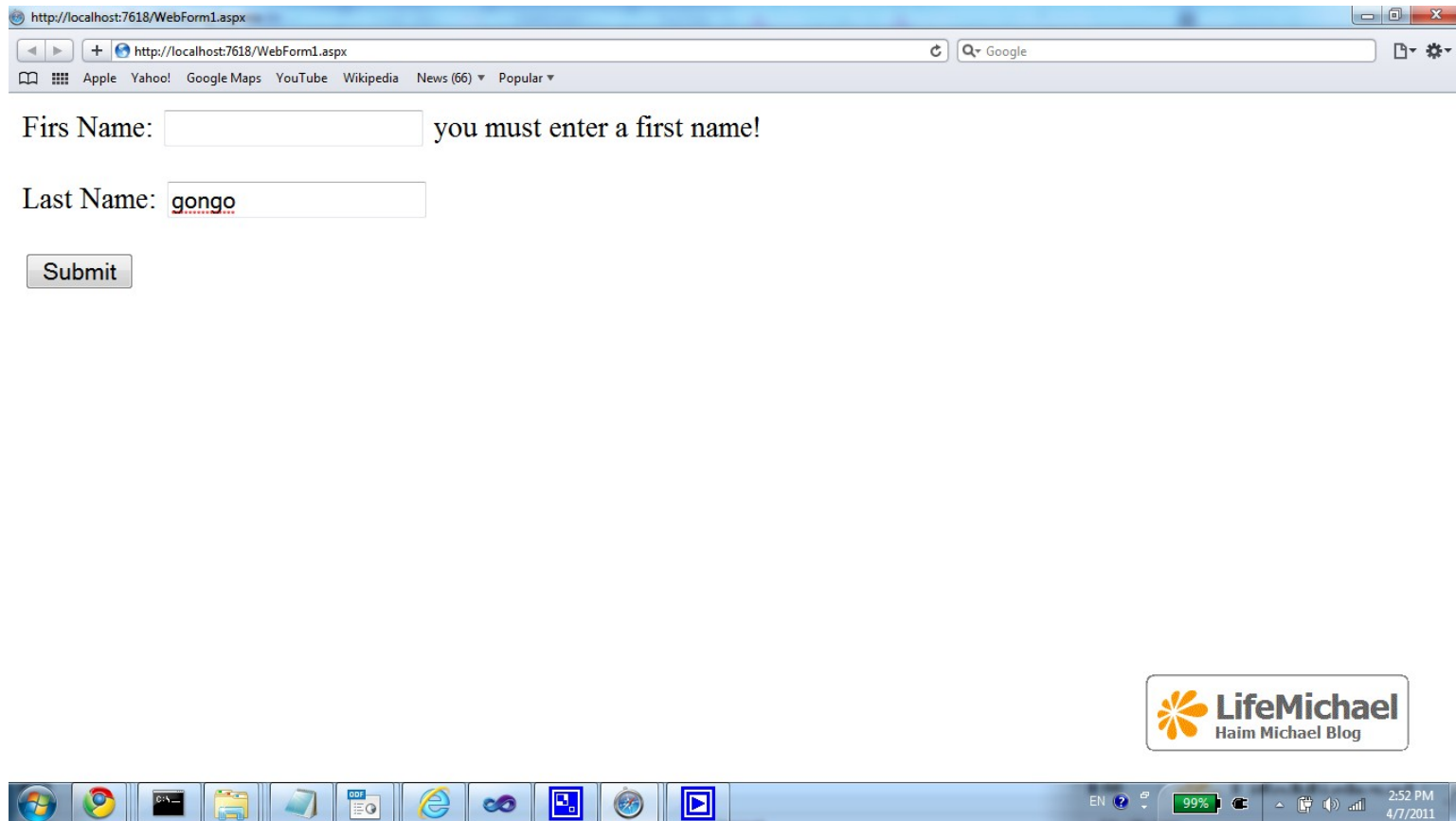
```
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
  <title></title>
</head>
<body>
  <form id="form1" runat="server">
  <div>
```



The RequiredFieldValidator Class

```
<asp:Label ID="Label1" runat="server" Text="Firs Name:">
</asp:Label>
<asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
<asp:RequiredFieldValidator ID="RequiredFieldValidator1"
    runat="server" ControlToValidate="TextBox1"
    ErrorMessage="you must enter a first name!">
</asp:RequiredFieldValidator>
<p />
<asp:Label ID="Label2" runat="server" Text="Last Name:">
</asp:Label>
<asp:TextBox ID="TextBox2" runat="server"></asp:TextBox>
<p />
<asp:Button ID="Button1" runat="server" Text="Submit" />
</div>
</form>
</body>
</html>
```

The RequiredFieldValidator Class



The `RegularExpressionValidator` Class

- Instantiating the `RegularExpressionValidator` class we shall get a validation control that ensures the user input matches a regular expression we provide.

The RegularExpressionValidator Class

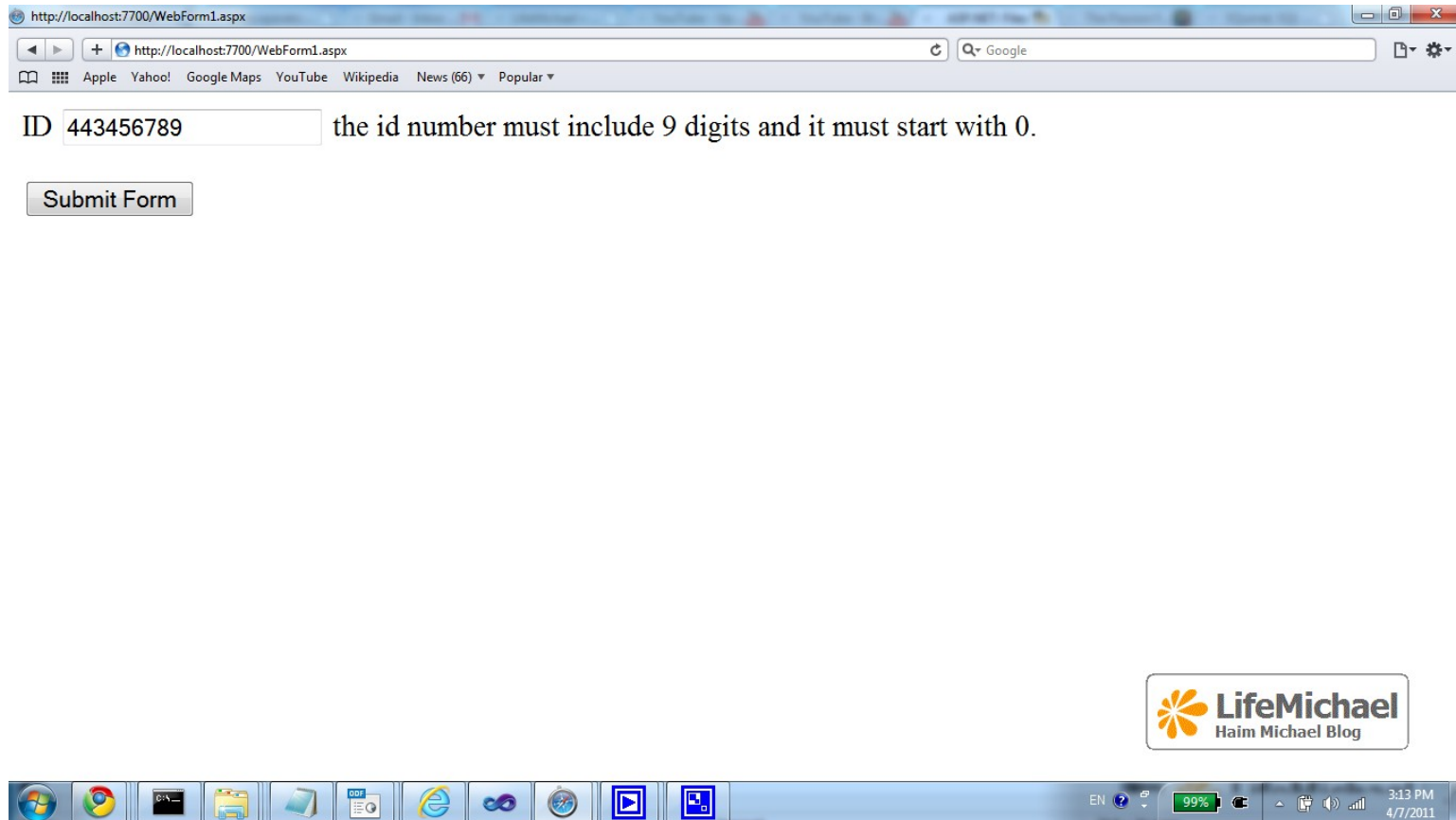
```
<%@ Page Language="C#" AutoEventWireup="true"  
CodeBehind="WebForm1.aspx.cs" Inherits="WebApplication30.WebForm1" %>  
  
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"  
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">  
  
<html xmlns="http://www.w3.org/1999/xhtml">  
<head runat="server">  
    <title></title>  
</head>
```



The RegularExpressionValidator Class

```
<body>
  <form id="form1" runat="server">
    <div>
      <asp:Label ID="Label1" runat="server" Text="ID"></asp:Label>
      <asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
      <asp:RegularExpressionValidator ID="RegularExpressionValidator1"
        runat="server" ControlToValidate="TextBox1"
        ErrorMessage="the id number must include 9 digits and it must
          start with 0."
        ValidationExpression="0\d\d\d\d\d\d\d">
    </asp:RegularExpressionValidator>
    <p />
    <asp:Button ID="Button1" runat="server" Text="Submit Form" />
  </div>
</form>
</body>
</html>
```

The `RegularExpressionValidator` Class



The RangeValidator Class

- Instantiating the `RangeValidator` class we shall get a validation control that ensures the user input is within the range we specify.

The RangeValidator Class

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs"
Inherits="WebApplication31.WebForm1" %>

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

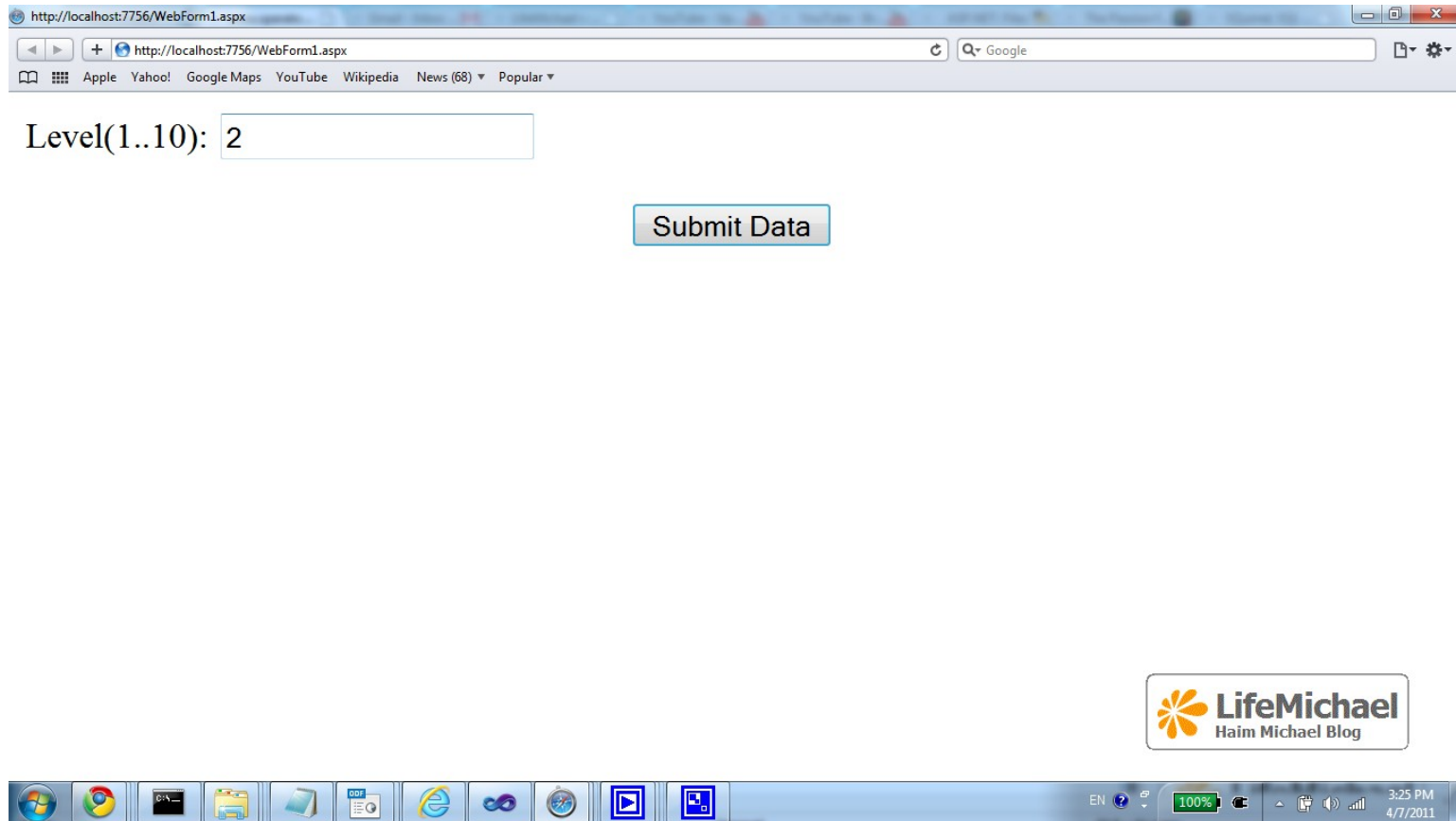
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <asp:Label ID="Label1" runat="server" Text="Level(1..10) : ">
            </asp:Label>
            <asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
            <p />
        </div>
    </form>
</body>
</html>
```



The RangeValidator Class

```
<asp:RangeValidator ID="RangeValidator1"
  runat="server" ErrorMessage="value must be between 1 and 10 (included)"
  MaximumValue="10" MinimumValue="1" Type="Integer"
  ControlToValidate="TextBox1"></asp:RangeValidator>
<asp:Button ID="Button1" runat="server" Text="Submit Data" />
</div>
</form>
</body>
</html>
```

The RangeValidator Class



The CompareValidator Class

- Instantiating the `RangeValidator` class we shall get a validation control that allows us to validate the entered value against another one.
- The `Operator` property should be assigned with a value that indicates about the comparison nature (e.g. `LessThan`, `Equal` etc.).

The CompareValidator Class

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs"
Inherits="WebApplication32.WebForm1" %>

<!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></title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <asp:Label ID="Label1" runat="server" Text="Username:"></asp:Label>
            <asp:TextBox ID="TextBox1" runat="server" style="margin-left: 28px"
                Width="150px">
            </asp:TextBox>
            <p />
            <asp:Label ID="Label2" runat="server"
                Text="Email Address:">
            </asp:Label>
```



The CompareValidator Class

```
<asp:TextBox ID="TextBox2" runat="server"
    Width="150px">
</asp:TextBox>
<p />
<asp:Label ID="Label3" runat="server" Text="Email Address:">
</asp:Label>
<asp:TextBox ID="TextBox3" runat="server"
    Width="150px">
</asp:TextBox>
<asp:CompareValidator ID="CompareValidator1" runat="server"
    ControlToCompare="TextBox2" ControlToValidate="TextBox3"
    ErrorMessage="the two emails should be the same!">
</asp:CompareValidator>
</div>
<asp:Button ID="Button1" runat="server" Text="Submit Data" />
</form>
</body>
</html>
```


The CompareValidator Class

http://localhost:1539/WebForm1.aspx

Username:

Email Address:

Email Address: the two emails should be the same!



Windows taskbar: 11:51 AM 4/9/2011

Validation Summary

- When dealing with a complex form that includes numerous input controls we may want to have all error messages displayed together.
- We can achieve it by using the `ValidationSummary` control and by assign the `Display` property of each one of the validation controls with the value "None" in order to prevent the display of duplicated messages.

Validation Summary

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs"
Inherits="WebApplication32.WebForm1" %>

<!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></title>
</head>
<body>
  <form id="form1" runat="server">
    <div>
      <asp:Label ID="Label1" runat="server" Text="Username:"></asp:Label>
      <asp:TextBox ID="TextBox1" runat="server" style="margin-left: 28px"
        Width="150px"></asp:TextBox>
      <asp:RequiredFieldValidator ID="RequiredFieldValidator1"
        runat="server" ControlToValidate="TextBox1" Display="None"
        ErrorMessage="you must enter a username!">
      </asp:RequiredFieldValidator>
    <p />
  </div>
</form>
</body>
</html>
```



Validation Summary

```
<asp:Label ID="Label2" runat="server" Text="Email Address:">
</asp:Label>
<asp:TextBox ID="TextBox2" runat="server" Width="150px">
</asp:TextBox>
<asp:RequiredFieldValidator ID="RequiredFieldValidator2"
    runat="server" ControlToValidate="TextBox2" Display="None"
    ErrorMessage="you must enter an email address!">
</asp:RequiredFieldValidator>
<asp:RegularExpressionValidator ID="RegularExpressionValidator1"
    runat="server" ControlToValidate="TextBox2" Display="None"
    ErrorMessage="you must enter a valid email address!"
    ValidationExpression=
        "\w+([-+.']\w+)*@\w+([-.] \w+)*\.\w+([-.] \w+)*">
</asp:RegularExpressionValidator>
<p />
```

Validation Summary

```
<asp:Label ID="Label3" runat="server" Text="Email Address:">
</asp:Label>
<asp:TextBox ID="TextBox3" runat="server" Width="150px">
</asp:TextBox>
<asp:CompareValidator ID="CompareValidator1" runat="server"
    ControlToCompare="TextBox2" ControlToValidate="TextBox3"
    Display="None"
    ErrorMessage="the two emails should be the same!">
</asp:CompareValidator>
<asp:RequiredFieldValidator ID="RequiredFieldValidator3"
    runat="server" ControlToValidate="TextBox3" Display="None"
    ErrorMessage="you must enter the email address twice!">
</asp:RequiredFieldValidator>
</div>
<asp:Button ID="Button1" runat="server" Text="Submit Data" />
<br />
<asp:ValidationSummary ID="ValidationSummary1" runat="server"
    HeaderText="summary of validation tests" />
</form>
</body>
</html>
```

Validation Summary

http://localhost:1539/WebForm1.aspx

Username:

Email Address:

Email Address:

summary of validation tests

- you must enter a username!
- you must enter the email address twice!

