

BAIS3110 Input Validation Assignment

Referring to:

How To: Protect From Injection Attacks in ASP.NET

<http://msdn.microsoft.com/en-us/library/ff647397.aspx>

How To: Use Regular Expressions to Constrain Input in ASP.NET

<http://msdn.microsoft.com/en-us/library/ff650303.aspx>

1. Create a new empty Website named *UserIDInputValidation* making sure you select **.Net Framework version 2.0**
2. Add in a Default webForm and type in the example program from the last page of the assignment (Setting **ValidateRequest="False"** in the page directive is really really important).
3. Demonstrate a URL attack by adding the following code after the URL when running the program:
`?Name=Bob<script>alert ('hacked') </script>`

A MessageBox should pop up simulating an attack

4. Demonstrate an input attack by typing the following code into the message box

```
<b>Bold</b> message<br>
<script>alert ( 'hacked' ) </script>
```

A MessageBox should pop up simulating an attack when you press the Submit button.

5. Fix the problem in Step 2 by validating the QueryString.
6. Fix the problem in Step 3. Disallow unsafe constructs such as `<script>` but allow bolding, italics, and underlining. Sanitize the MessageBox. Note the bug in Microsoft's documentation where the `/b`, `/u`, and `/i` commands aren't written properly.
7. What does `ValidateRequest` do, and how can it help to protect your pages?

8. Validate the `aFileName` TextBox to allow valid filenames in the local folder only, reserved system names such as `PRN`, `COM1` or `AUX` are not allowed either.
9. Ping `www.acme.com`'s website to determine its IP address and convert the address to Dotless IP notation using the calculator found at <http://www.allredroster.com/iptodec.htm>, test the Address in your web browser.

Input Validation.aspx

```
<%@ Page Language="VB" AutoEventWireup="false" CodeFile="Default.aspx.vb" Inherits="_Default"
ValidateRequest="false" %>

<html xmlns="http://www.w3.org/1999/xhtml" >
<head runat="server">
    <title>Untitled Page</title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <hr />
            HTML Input Validation Test<br />
            <asp:TextBox ID="aMessage" runat="server" Rows="10" TextMode="MultiLine" Width="100%"></asp:TextBox>
            <asp:Button ID="Button1" runat="server" Text="Submit" UseSubmitBehavior="true" /><br />
            <hr />
        </div>
        Save to Filename:<br />
        <asp:TextBox ID="aFileName" runat="server" Width="150%"></asp:TextBox>
        <br />
    </form>
</body>
</html>
```

Input Validation.aspx.vb

```
Partial Class _Default
    Inherits System.Web.UI.Page

    Protected Sub Page_Load(ByVal sender As Object, ByVal e As System.EventArgs) Handles
Me.Load
        Response.Write("Hello ")
        Response.Write(Request.QueryString("name"))
        Response.Write("<br><br>")

        Response.Write("Message=<br>")
        Response.Write(aMessage.Text)
        Response.Write("<br>")
    End Sub
End Class
```