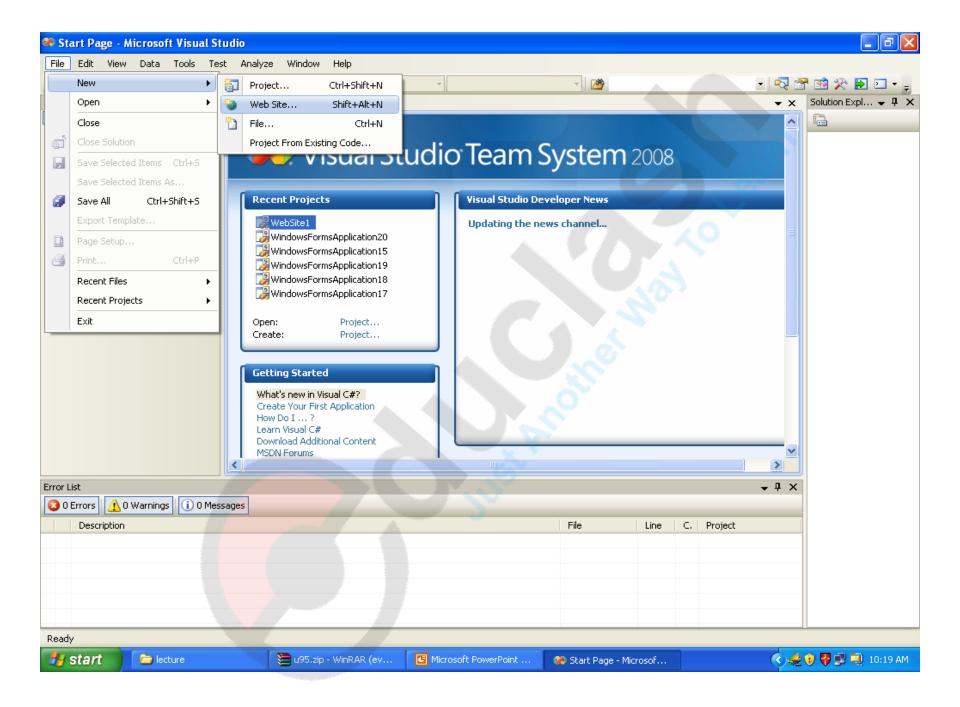
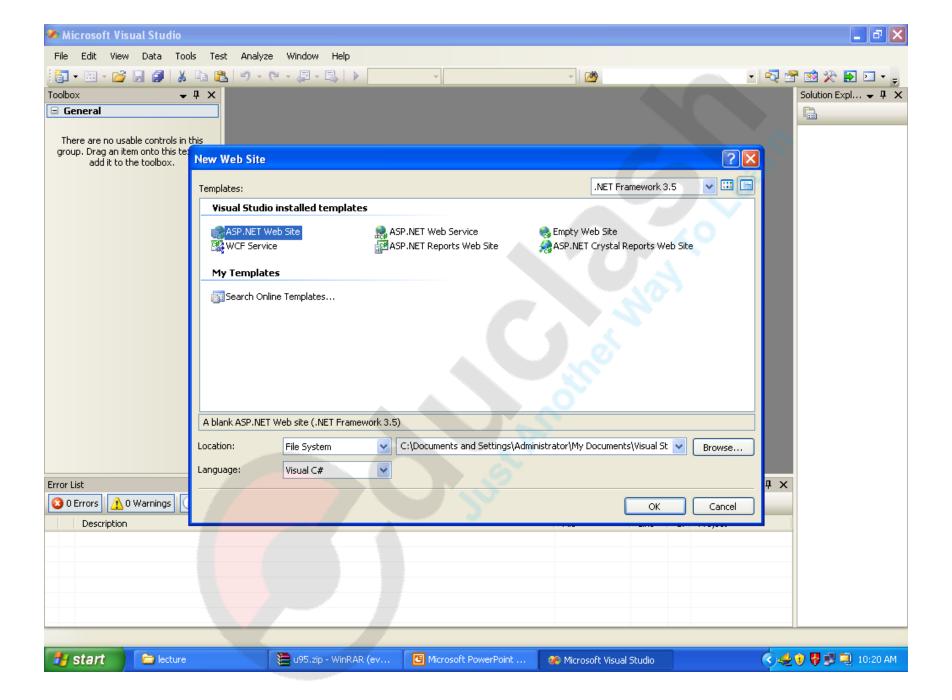
# Web Server controls

Label
Textbox
Checkbox
Button
Multiview
FileUpload





# An ASP.NET Web Form can contain any or all of the following types of server controls:

- **HTML server controls** Programmable HTML controls. HTML server controls expose an object model that maps very closely to the <u>HTML elements</u> that they render.
- Web server controls Programmable controls with more built-in features than HTML server controls. Web server controls include not only controls for user input, but also special-purpose controls such as a calendar, menus, and a tree view control. Web server controls expose an object model specifically intended for programming Web pages.
- Validation controls Controls that incorporate logic to allow validation of user input.
   Validation controls enable checking for a required field, and testing against a specific value or pattern of characters, between ranges, and so on. For more information about validation controls, see <a href="Web Forms Validation">Web Forms Validation</a>.
- **User Controls** User-defined controls that are mainly used for embedding in other ASP.NET Web pages. User controls provide an easy way to create reusable page elements, such as a search box with built-in user-defined search logic.

#### <asp:label> Control

Displays static text on the Web Forms page and allows you to manipulate it programmatically.

- The **Label** control is typically used when text in the page needs to change at run time, such as in response to a button click.
- A **Label** control is better for simply displaying text than a **TextBox** control ( or another control ) because the resulting text is static on the page; users cannot edit it.
- The <u>Text</u> property of a **Label** control can be set statically at design time or dynamically at run time.
- The **Text** property can also be bound to a data source to display database information on a page.

<asp:label id="Message1" runat="server">Hello </asp:label>

#### id attribute

 The id attribute is used to uniquely identify the <asp:label> control so you can refer to it in your ASP.NET code.

#### runat="server" attribute

The runat="server" attribute tells the server to process the control and generate HTML code to be sent to the client.

## forecolor

Let's look at another example. If you want to set the color of a text message to red, you could set it like this:

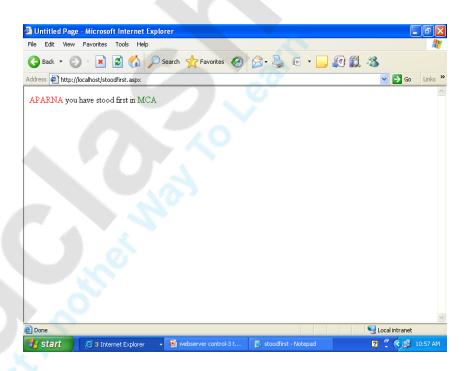
<asp:label id="Message1" forecolor="red" runat="server">Hello</asp:label>

#### **Text attribute**

 Alternatively, you can use the. This way, everything can be contained within the opening tag, in which case you need to close the tag in the following way:

<asp:label id="Message1" forecolor="red" text="Hello" runat="server" />

```
<script language="C#" runat="server">
void Page Load()
  Message1.Text = "APARNA";
  Message2.Text = "MCA";
</script>
<html >
<head>
  <title>Untitled Page</title>
</head>
<body>
<form id="form1" runat="server">
<asp:label id="Message1" forecolor="red"
   runat="server" />
you have stood first in
<asp:label id="Message2"
   forecolor="green" runat="server" />
</form>
</body>
</html>
```



#### **Button Web Server Controls**

- Buttons in a Web Forms page allow the user to send a command. They submit the form to the server and cause it to be processed along with any pending events.
- Web server controls include three types of buttons:
  - a standard command button ( <asp:Button> control ),
  - a hyperlink-style button ( <asp:LinkButton> control ), and
  - a graphical button ( <asp:ImageButton > control ) .
- All three provide similar features, but each offers a different look.

## **Types of Buttons**

- You can create these types of Web server control buttons:
  - 1. command Button Presents a standard command button, rendered as an HTML submit button.

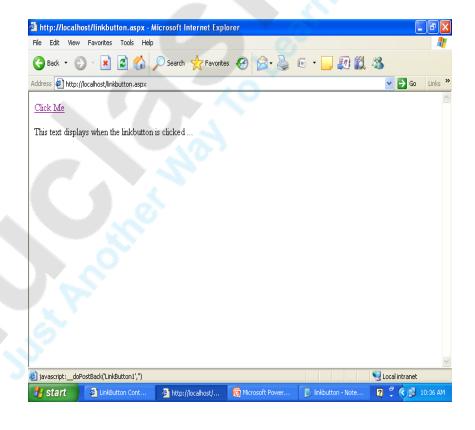
<asp:button text="Click Me" onClick="doSomething"
runat="server" />

### LinkButton

- Renders as a hyperlink in the page. However, it contains client-side script that causes the form to be posted back to the server. (You can create a true hyperlink using the <a href="HyperLink Control">HyperLink Control</a>.)
- The LinkButton control requires some client-side script support in order to function.
- The LinkButton control has the same appearance as a HyperLink control, but has the same functionality as a Button control. Use the HyperLink control if you want to link to another Web page when the control is clicked.
- Creates a hyperlink-style button on the Web Forms page.

```
<asp:LinkButton id="LinkButton1" Text = "Click Me"
onClick = "LinkButtonClickHandler" runat="server" />
```

```
<html>
<body>
<script language="C#" runat="server">
 void LinkButtonClickHandler (Object
   sender, EventArgs e ) {
  msgLabel.Text = "This text displays when
   the linkbutton is clicked ...";
</script>
</body>
<head>
<form runat=server>
 <asp:LinkButton id="LinkButton1" Text
   = "Click Me"
   onClick = "LinkButtonClickHandler"
   runat="server" />
 <asp:Label id="msgLabel"
   runat=server />
</form>
</head>
</html>
```



# **ImageButton**

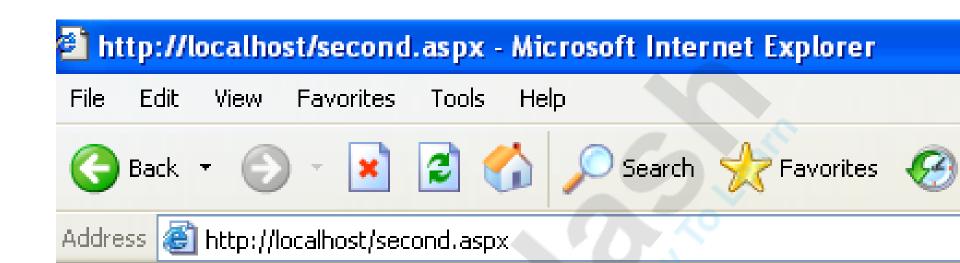
- Allows you to specify a graphic as a button.
- This is useful for presenting a rich button appearance.
   ImageButton controls also pinpoint where in the graphic a user has clicked, which allows you to use the button as an image map.

<asp:ImageButton runat="server"</li>
 ImageUrl="myPic.jpg" onClick="doSomething"
 />

#### **TextBox Control**

The TextBox control generates single-line and multiline text boxes.

- The **TextBox** control is an input control that lets the user enter text.
- By default, the TextMode property is set to SingleLine, which creates a text box with only one line.
- You can also set the property to MultiLine or Password.
- MultiLine creates a text box with more than one line.
- Password creates a single-line text box that masks the value entered by the user.
- The display width of the text box is determined by its
   Columns property. If the text box is a multiline text box, the
   display height is determined by the Rows property.



# **TextBox Sample**

hello shubhi Copy Text to Label

hello shubhi

```
<html>
<head>
  <script language="C#" runat="server">
    void SubmitBtn Click(Object Sender, EventArgs e) {
      Label1.Text = Text1.Text;
  </script>
</head>
<body>
  <h3><font face="Verdana">TextBox Sample</font></h3>
  <form runat="server">
   <asp:TextBox id="Text1" Width="200px" runat="server"/>
   <asp:Button OnClick="SubmitBtn_Click" Text="Copy Text to Label"
  Runat="server"/>
   >
      <asp:Labelid="Label1" Text="Label1" runat="server"/>
  </form>
</body>
</html>
```

# Properties

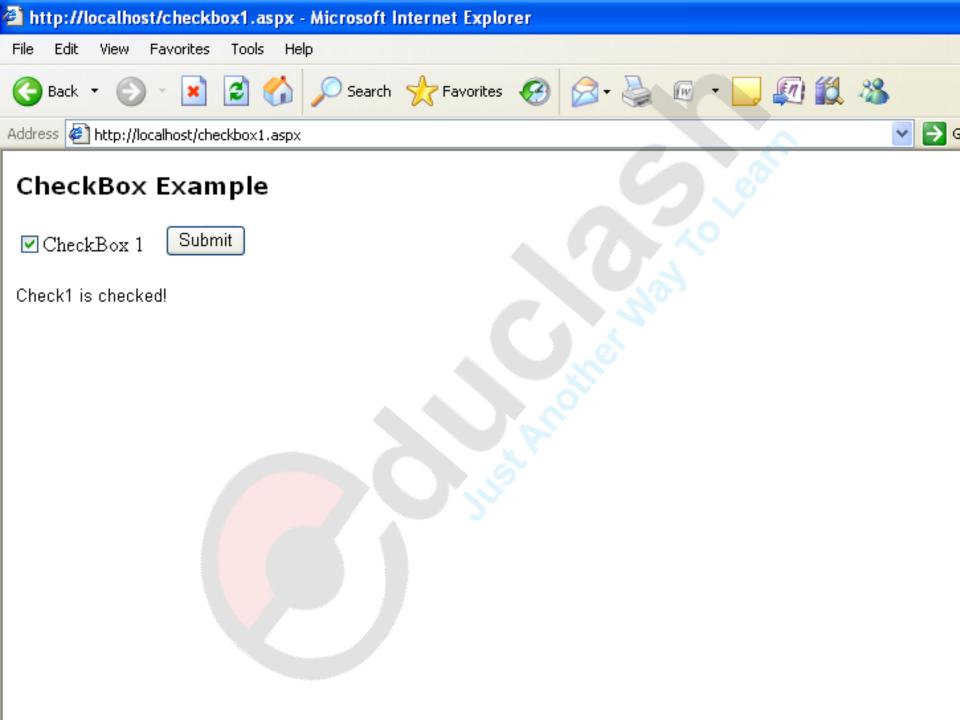
- 1. TextMode Indicates whether the text box is in single-line, multi-line, or password mode. Possible values are Single, MultiLine, and Password.
- 2. MaxLength The maximum number of characters allowed within text box. This property has no effect unless the **TextMode** property is set to **SingleLine** or **Password**.
- 3. Rows Number of rows within the text box. This property has no effect unless the **TextMode** property is set to **MultiLine**.
- 4. Text The text that the user has entered into the box.

# Program

• Creates a check box control that allows the user to switch between a *true* or *false* state.

```
</head>
<body>
  <h3><font face="Verdana">CheckBox Example</font></h3>
  <form runat=server>
    <asp:CheckBox id=Check1 Text="CheckBox 1"
  runat="server" />
      
    <asp:button text="Submit" OnClick="SubmitBtn_Click"
  runat=server/>
    >
       <asp:Labelid=Label1 Font-Names="arial" font-
  size="10pt" runat="server"/>
     </form>
</body>
</html>
```

```
<html>
<head>
  <script language="C#" runat="server">
   void SubmitBtn_Click(Object Sender, EventArgs e) {
     if (Check1.Checked == true) {
       Label1.Text = "Check1 is checked!";
     else {
       Label1.Text = "Check1 is not checked!";
  </script>
```



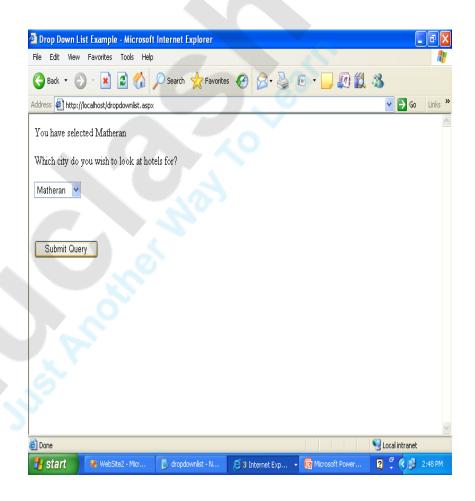
# The <asp:dropdownlist> Control

 The <asp:dropdownlist> control is one of the best controls for demonstrating the usefulness of having a form control processed on the server side.

```
<asp:dropdownlist id="list1" runat="server">
  <asp:listitem>Male</asp:listitem>
  <asp:listitem>Female</asp:listitem>
  </asp:dropdownlist>
```

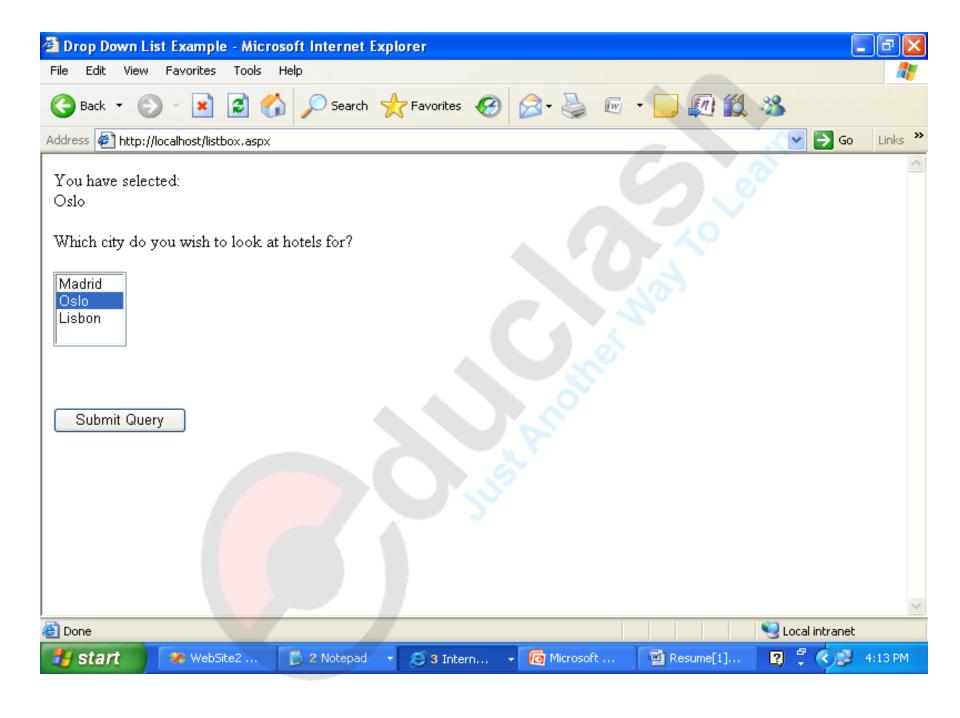
```
<html>
<head>
  <title>Drop Down List Example</title>
</head>
<body>
  <asp:label id="Message" runat="server"/>
 <br />
  <form runat="server">
    Which city do you wish to look at hotels for?<br/>
<br/>
/>
    <asp:dropdownlist id="list1" runat="server">
     <asp:listitem>Mount abu</asp:listitem>
     <asp:listitem>Matheran</asp:listitem>
     <asp:listitem>Ooty</asp:listitem>
    </asp:dropdownlist>
  <input type="Submit"> </form> </body></html>
```

```
<script runat="server"</pre>
   language="C#">
 void Page Load()
   if (Page.IsPostBack) {
  Message.Text = "You have
  selected "+
  list1.SelectedItem.Text;
</script>
```



```
<html>
<head>
  <title>Drop Down List Example</title>
</head>
<body>
  <asp:label id="Message" runat="server"/>
  <form runat="server">
  Which city do you wish to look at hotels
   for?<br /><br />
      <asp:listbox id="list1" runat="server"
       selectionmode="multiple">
       <asp:listitem>Madrid</asp:listitem>
       <asp:listitem>Oslo</asp:listitem>
       <asp:listitem>Lisbon</asp:listitem>
      </asp:listbox>
  <input type="Submit"> </form> </body>
</html>
```

```
<script runat="server" language="C#">
  void Page_Load()
 string msg = "You have selected: <br />";
    if (list1.ltems[0].Selected) {
  msg = msg + list1.Items[0].Text + "<br />";
    if (list1.ltems[1].Selected) {
   msg = msg + list1.ltems[1].Text + "<br />";
    if (list1.Items[2].Selected) {
  msg = msg + list1.Items[2].Text + "<br />";
   Message.Text = msg;
</script>
```



```
<html >
<head id="Head1" runat="server">
  <title>Untitled Page</title>
</head>
<body>
  <form id="form1" runat="server">
    <div>
      <h3>
        <font face="Verdana">MultiView with 3 Views</font>
      </h3>
      <asp:DropDownList ID="DropDownList1" runat="server" AutoPostBack="True"</pre>
   OnSelectedIndexChanged="IndexChanged">
        <asp:ListItem Value="0">View 1</asp:ListItem>
        <asp:ListItem Value="1">View 2</asp:ListItem>
        <asp:ListItem Value="2">View 3</asp:ListItem>
      </asp:DropDownList><br />
      <hr />
```

```
<asp:MultiView ID="MultiView1" runat="server" ActiveViewIndex="0">
```

```
<asp:View ID="View1" runat="server">
Now showing View #1<br/>br />
<asp:TextBox ID="TextBox1"
runat="server"></asp:TextBox><strong> </strong>
<asp:Button ID="Button1" runat="server"
Text="Button" /></asp:View></asp:View>
```

```
<asp:View ID="View2" runat="server">
  Now showing View #2<br />
<asp:HyperLink ID="HyperLink1" runat="server"
  NavigateUrl="http://www.asp.net">
HyperLink
</asp:HyperLink>
<asp:HyperLink ID="HyperLink2" runat="server"
  NavigateUrl="http://www.asp.net">
HyperLink
</asp:HyperLink>
</asp:View>
```

```
<asp:View ID="View3" runat="server">
    Now showing View #3<br />
     <asp:Calendar ID="Calendar1" runat="server">
</asp:Calendar>
 </asp:View>
  </asp:MultiView></div>
  </form>
</body>
</html>
```

```
<%@ Page Language="C#" %>
<script runat="server">
 protected void IndexChanged(object sender, EventArgs e)
   MultiView1.ActiveViewIndex =
  Convert.ToInt32(DropDownList1.SelectedValue);
</script>
```

# MultiView with 3 Views

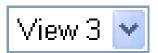


Now showing View #1



Button

#### MultiView with 3 Views



#### Now showing View #3

<u>&lt;</u>	August 2009 ≥					
Sun	$\mathbf{Mon}$	Tue	Wed	Thu	Fri	Sat
<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>	<u>1</u>
<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
<u>9</u>	<u>10</u>	11	<u>12</u>	13	<u>14</u>	<u>15</u>
<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>
<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>
<u>30</u>	<u>31</u>	1	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>

# MultiView with 3 Views

View 2 💌

Now showing View #2
HyperLink HyperLink

- A very useful file access feature under ASP.NET is its file upload capability.
- You can present a form containing a text box and browse button for users to navigate their local PC directories to locate a file for uploading.
- By clicking a button users can copy the local file to a server directory.
- This feature is illustrated by creating a file upload form for copying book pictures to the c:\eCommerce\BookPictures directory.
- The upload function is disabled, but you should get a good sense of how it works.
   The following form restricts uploads to JPG files no larger that 100 KB.

<asp:FileUpload id="id" Runat="Server"/>

# File Upload Properties and Methods

 An <asp:FileUpload> control has several properties and methods to manage file uploading.

#### Properties:

- Control.HasFile -
- Control.FileName
   Control.PostedFile.ContentLength

#### Methods:

Control.SaveAs("path")

- Whether or not a file has been selected and appears in the input box is given by the control's **HasFile** property. This property returns True or False for a script to determine whether to proceed with file uploading.
- The **FileName** property gives the name of the file selected for uploading. This is a reference only to the file name, not to the entire file path showing in the input area.
- The PostedFile property is a reference to the file chosen for uploading.
  - This file object's ContentLength property returns the size of the file in bytes.
- The control's **SaveAs**("path") method writes the uploaded file to a server directory given by the path string. The FileName property is appended to this path to copy the file to the designated directory.

A check is made on the size of the upload file as given by its FileUp.PostedFile.ContentLength property. Files that are larger than 100,000 bytes in length are rejected.

#### If FileUp.PostedFile.ContentLength > 100000

Message.Text = "Uploaded file size must be less than 100 KB."

#### Else

#### { FileUp.SaveAs(Path+FileName)

Message.Text = "<b>File Uploaded</b><br/>"

Message.Text &= "File Name: "+ FileUp.FileName & "<br/>"

Message.Text &= "File Size:" + FileUp.PostedFile.ContentLength "

If InStr(UCase(FileUp.FileName), ".JPG") = 0
 ",message"

Else

#### "upload process"

A check is made to ensure that only JPG files are uploaded. The FileUp.FileName property is checked to make sure that it contains the substring ".JPG". If not, then a message is written to the Message control and the script ends. The file name is converted to upper-case characters for the test to ensure that both ".JPG" and ".jpg" files are accepted.

## FileUpLoad control

 The FileUpLoad control enables you to upload file to the server. It displays a text box control and a browse button that allow users to select a file to upload to the server.



- The FileUpload control does not automatically save a file to the server after the user selects the file to upload.
- You must explicitly provide a control or mechanism to allow the user to submit the specified file.

```
</head>
<body>
  <h3><font face="Verdana">File Upload</font></h3>
  <form runat=server>
    <asp:FileUpLoad id="FileUpLoad1"
  AlternateText="You cannot upload files"
  runat="server" />
    <asp:Button id="Button1" Text="Upload"
  OnClick="Button1 Click" runat="server" />
    <asp:Labelid="Label1" runat="server" />
  </form>
</body>
</html>
```

```
script
<html>
<head>
  <script language="C#" runat="server">
    void Button1 Click(object sender, EventArgs e)
  if (FileUpLoad1.HasFile)
     Label1.Text = "<br/>br>Received =" +
  FileUpLoad1.FileName + "<br>Content Type=" +</br>
  FileUpLoad1.PostedFile.ContentType + "<br/>br>Length="
  + FileUpLoad1.PostedFile.ContentLength;
else
  Label1.Text = "No uploaded file";
 </script>
```

Browse... Upload

D:\meeyaaoo\10.jpg

Browse...

Upload

Browse...

Upload

Received= 10.jpg

Content Type= image/pjpeg

Length= 43879

<asp:FileUpLoad id="FileUpLoad1"
 AlternateText="You cannot upload files"
 backcolor="wheat" width=300
 borderstyle="ridge" borderwidth=1
 runat="server" />

Browse...

Upload

Received=11.jpg

Content Type= image/pjpeg

Length= 43204

## HasFile and SaveAs

- Hasfile: Gets a value indicating whether the <u>FileUpload</u> control contains a file.
- If the <u>HasFile</u> returns true, call the SaveAs method. If it returns false, display a message to the user indicating that the control does not contain a file.
- SaveAs Saves the contents of an uploaded file to a specified path on the Web server.

```
<script language="C#" runat="server">
  protected void UploadButton_Click ( object sender, EventArqs e ) {
    // specify the path on the server to save the uploaded file to.
    String savePath = @"c:\tmp\";
    // before attempting to perform operations on the file,
    // verify that the FileUpload control contains a file
    if ( fileUploader.HasFile ) {
      // get the name of the file to upload.
      String fileName = fileUploader.FileName;
      // append the name of the file to upload to the path.
      savePath += fileName;
      // call the SaveAs method to save the uploaded file to the specified path.
      fileUploader.SaveAs ( savePath );
      // notify the user of the name of the file was saved under.
      uploadStatusLabel.Text = "Your file was saved as " + fileName;
    } else {
      // notify th<mark>e us</mark>er that a filename is needed
      uploadStatusLabel.Text = "You did not specify a file to upload.";
</script>:
```

### Exercise

 The following example demonstrates how to create a FileUpload control that performs error checking. Before the file is saved, the HasFile method is called to verify that a file to upload exists. In addition, the File.....Exists method is called to check whether a file that has the same name already exists in the path. If it does, the name of the file to upload is prefixed with a number before the SaveAs method is called. This prevents the existing file from being overwritten.

```
<%@ Page Language="C#" %>
<html >
<head>
  <title>FileUpload.SaveAs Method Example</title>
<script runat="server">
  protected void UploadButton_Click(object sender, EventArgs e)
    // Before attempting to save the file, verify
    // that the FileUpload control contains a file.
    if (FileUpload1.HasFile)
     // Call a helper method routine to save the file.
     SaveFile(FileUpload1.PostedFile);
    else
     // Notify the user that a file was not uploaded.
     UploadStatusLabel.Text = "You did not specify a file to upload.";
```

```
void SaveFile(HttpPostedFile file)
  // Specify the path to save the uploaded file to.
  string savePath = "c:\\temp\\";
  // Get the name of the file to upload.
  string fileName = FileUpload1.FileName;
  // Create the path and file name to check for duplicates.
  string pathToCheck = savePath + fileName;
  // Create a temporary file name to use for checking
duplicates.
  string tempfileName = "";
```

```
// Check to see if a file already exists with the
    // same name as the file to upload.
    if (System.IO.File.Exists(pathToCheck))
    { int counter = 2;
     while (System.IO.File.Exists(pathToCheck))
     { // if a file with this name already exists,
      // prefix the filename with a number.
      tempfileName =counter.ToString() +fileName;
      pathToCheck = savePath + tempfileName;
      counter ++;
     fileName = tempfileName;
```

```
// Notify the user that the file name was changed.
UploadStatusLabel.Text = "A file with the same name already exists." +
        "<br />Your file was saved as " + fileName;
    else
    { // Notify the user that the file was saved successfully.
     UploadStatusLabel.Text = "Your file was uploaded successfully.";
    // Append the name of the file to upload to the path.
    savePath += fileName;
    // Call the SaveAs method to save the uploaded file to the specified directory.
    FileUpload1.SaveAs(savePath);
</script>
```

```
</head>
<body>
  <h3>FileUpload.SaveAs Method Example</h3>
  <form id="Form1" runat="server">
    <h4>Select a file to upload:</h4>
    <asp:FileUpload id="FileUpload1" runat="server">
    </asp:FileUpload> <br /><br />
   <asp:Button id="UploadButton" Text="Upload file"
  OnClick="UploadButton Click" runat="server">
    </asp:Button>
   <hr />
   <asp:Labelid="UploadStatusLabel" runat="server">
    </asp:Label>
  </form>
</body>
```

### FileUpload.SaveAs Method Example

Select a file to upload:

Browse...

Upload file

