Visual Training

Of

Microsoft Visual Studio2015

Web based Applications using ASP.Net with MS Visual C-Sharp

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Chapter No.2

Master Pages

In

ASP.Net

DAY2

In today's session:

- ✓ **Understanding the Master Page**
- ✓ **Creating the Master Page**
- ✓ **Using the Table Tags in Master Page**
- ✓ **Applying the Master Page to other Pages**

1.1 Master Pages

In Web site development using ASP.NET, the master page is a feature that enables you to define common structure and interface markup elements for your Web site, including headers, footers, style definitions, or navigation bars. Master pages allow you to

create a consistent look and behavior for all the pages (or group of pages) in your web application. The master page can be shared by any of the pages in your Web site, called the Content Page, and removes need to duplicate code for shared elements within your Web site. The master page defines placeholders for the content, which can be overridden by content pages. When users request the content page, ASP.NET merges the pages to produce output that combines the layout of the master page with the content of the content page.

1.2 Adding the Master Page to the Web Site

A Master Page is used to provide a consistent look to the web site. Before you add a Master Page to your web site, design it on the page how do you want to design it, for example we want to design it as:

➔ First Row is the Header

➔ Second Row Having Links and Body of the Site

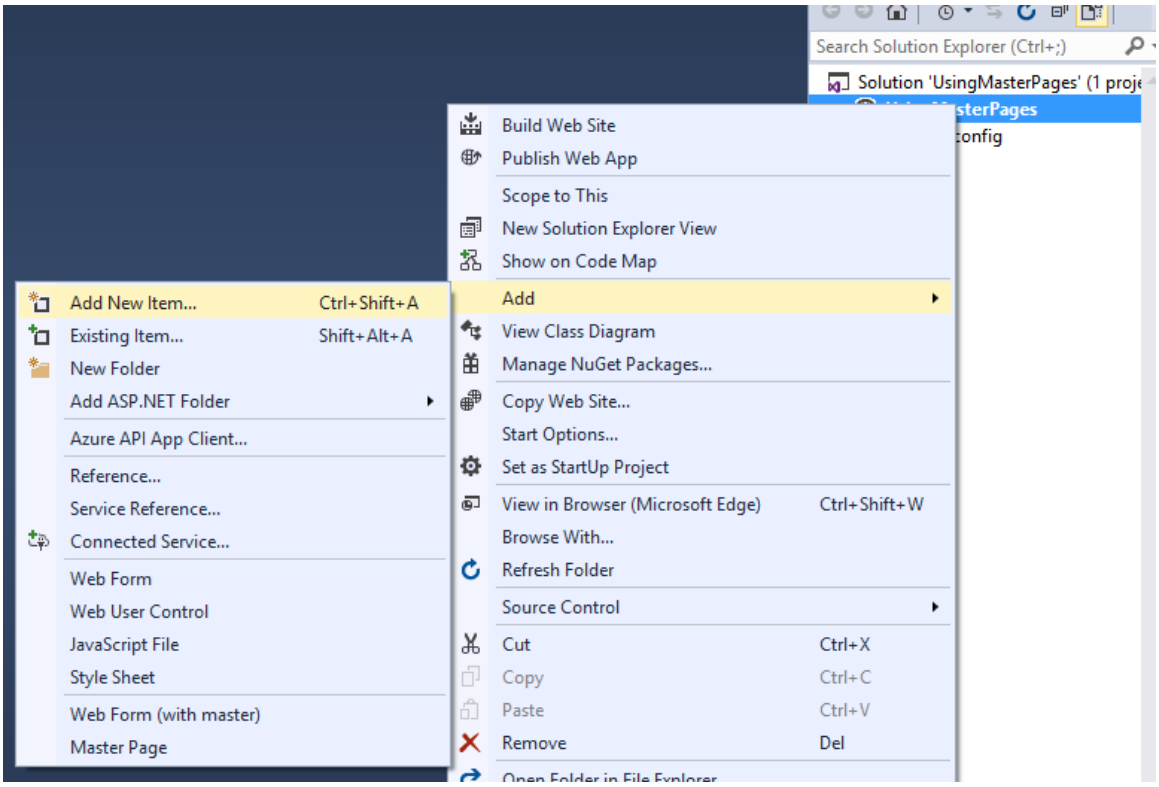
➔ Third Row has the Footer Links

For example:

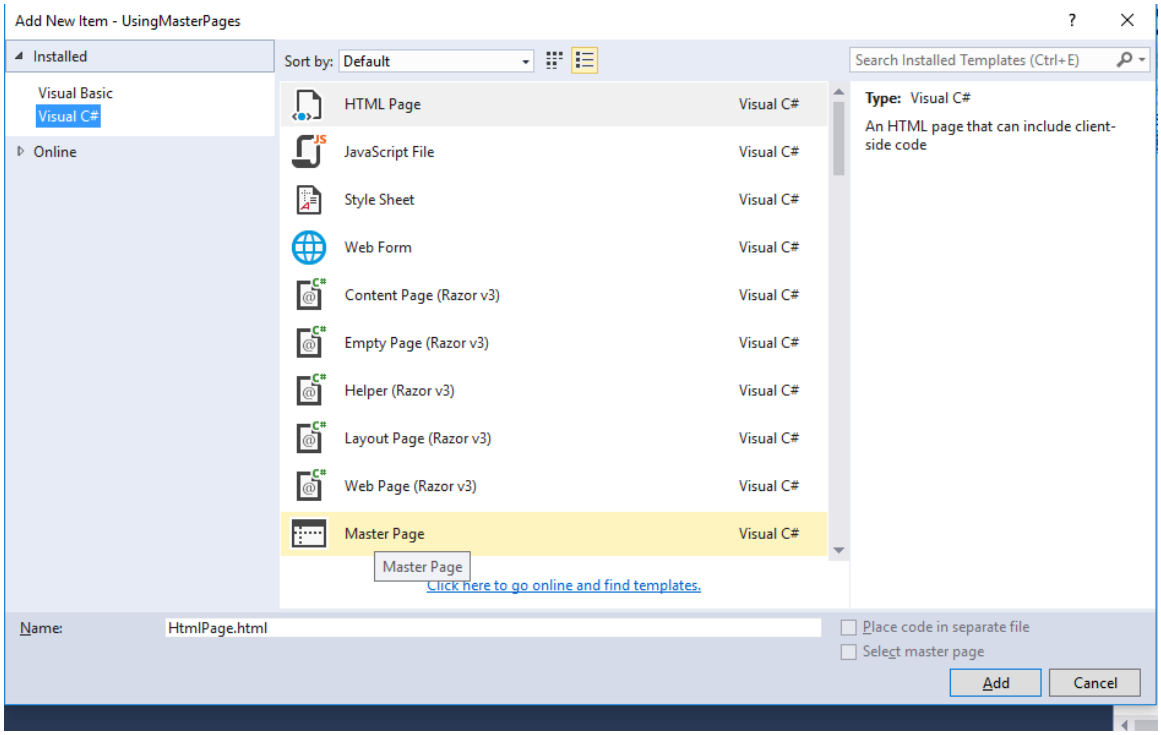
<table>
<tr><td>Left Image</td><td>Header Text</td><td>Right Image</td></tr>
<tr><td colspan="3">Marquee NEWS</td></tr>
<tr><td>Left Links</td><td colspan="2">Body Text (contents Page will be opened here) [Colspan = 2]</td></tr>
<tr><td colspan="3">Centrally Aligned Footer Links</td></tr>
</table>

Follow these steps to add and use Master Pages to your Web Site.

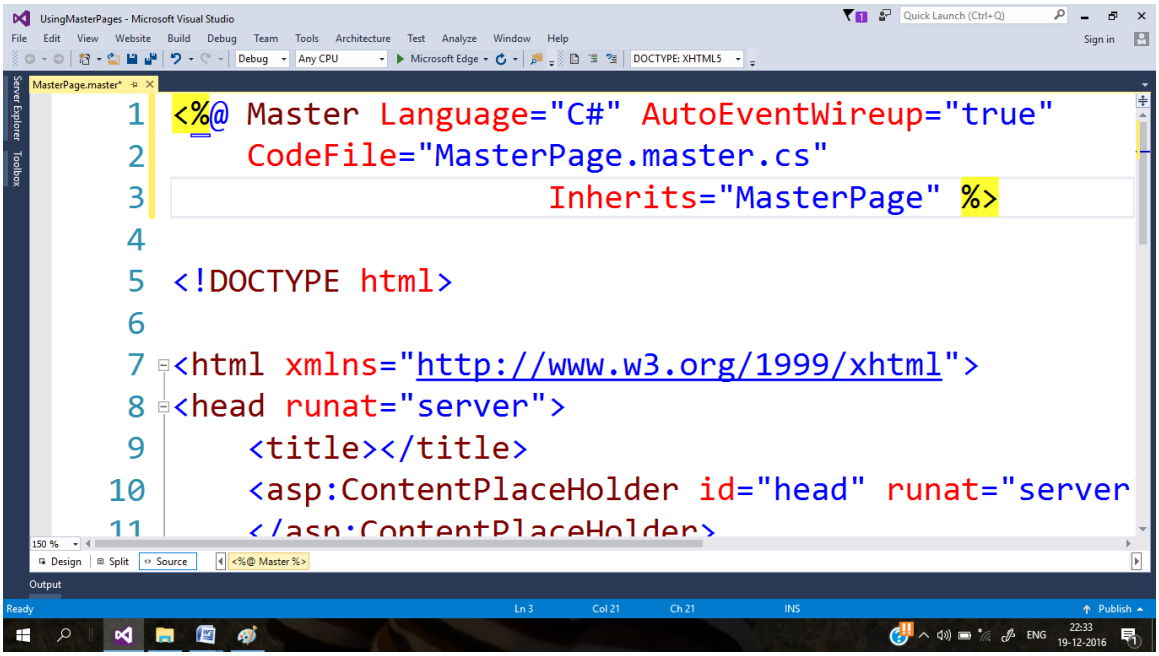
1. Create a New ASP.Net Empty Web Site, Name it as **UsingMasterPages**
2. Right Click the web site and choose Add New Item as shown,

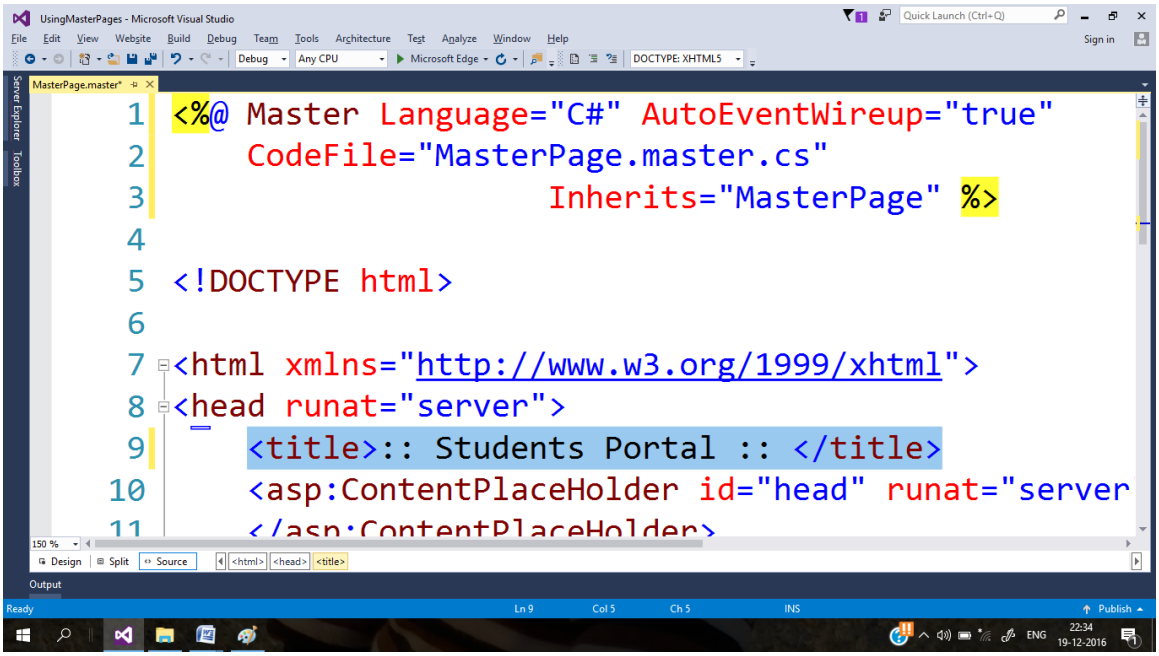


3. Here, From the Open **Add New Item Window** the **Master Page** and press Add button



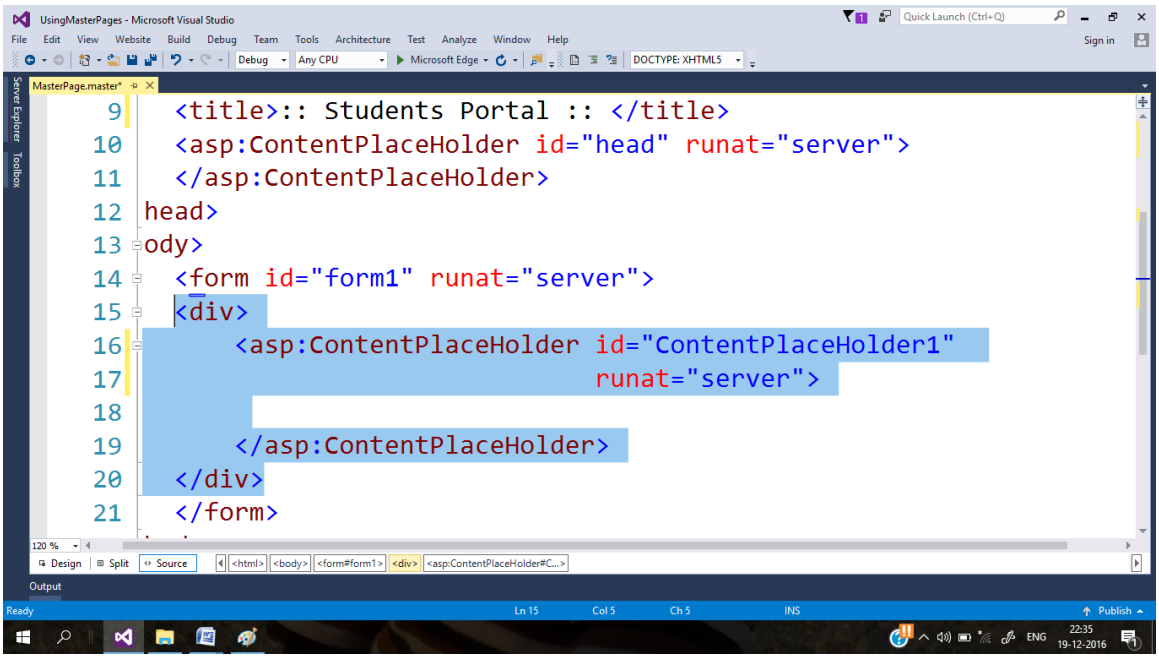
4. The Master Page will be added to your web site and you will see the Master Page. Here, first Change the Title of the Master Page in the **HTML <HEAD>** tag as shown:





<title> :: Students Portal :: </title>

5. In the Master Page, see the selected <DIV> Tag. There is a tag called <asp:ContentPlaceHolder>. This tag defines the area in which all the other linked web forms are displayed. Here before the <DIV> tag, design the <TABLE> as we give the Table design on previous page of this document.



6. From the above figure, it is clear that there are

a. Table **width=100%** and Border=”2”

b. Total Four Rows

c. In first Row, there are three TDs. First and third TD is of Width=15% and remaining Width=”70%” will be allocated to Middle TD

d. In Second Row, we have used ColSpan = “3” and add a <MARQUEE> tag

e. In the third TD, first TD is displayed as in first TR but the next two TDs are merged using Colspan=”2”

f. In the last and 4th Row, three TDs are merged using Colspan=”3” and are aligned in the center.

The complete HTML code is given by in the Master Page before the <DIV> tag.

```
<%@ Master Language="C#" AutoEventWireup="true"
    CodeFile="MasterPage.master.cs"
                Inherits="MasterPage" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title>:: Students Portal :: </title>
    <asp:ContentPlaceHolder id="head" runat="server">
    </asp:ContentPlaceHolder>
</head>
<body>
    <form id="form1" runat="server">
        <table width="100%" border="2">
            <tr>
                <td width="15%">Logo-1</td>
                <td>Students <br />Portal</td>
                <td width="15%">Logo-2</td>
            </tr>
            <tr>
                <td colspan="3">
                    <marquee>Today! We are learing Using Master Pages in ASP.Net</marquee>
                </td>
                </tr>
            <tr>
                <td></td>
                <td colspan="2"></td>
            </tr>
            <tr>
                <td colspan="3" align="center"> &copy;</td>
            </tr>
        </table>
    <div>
        <asp:ContentPlaceHolder id="ContentPlaceHolder1"
                        runat="server">

        </asp:ContentPlaceHolder>
    </div>
    </form>
</body>
</html>
```

7. Next Step is to Cut the Content Place Holder tag inside the <DIV> tag as we have shown in the gray color highlighted in the above figure. Now, Paste it in the third Row second <TD> in which we have used Colspan=”2”. This is shown in the next figure.

```
<%@ Master Language="C#" AutoEventWireup="true"
    CodeFile="MasterPage.master.cs"
                    Inherits="MasterPage" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title>:: Students Portal :: </title>
    <asp:ContentPlaceHolder id="head" runat="server">
    </asp:ContentPlaceHolder>
</head>
<body>
    <form id="form1" runat="server">
        <table width="100%" border="2">
            <tr>
                <td width="15%">Logo-1</td>
                <td>Students <br />Portal</td>
                <td width="15%">Logo-2</td>
            </tr>
            <tr>
                <td colspan="3">
```

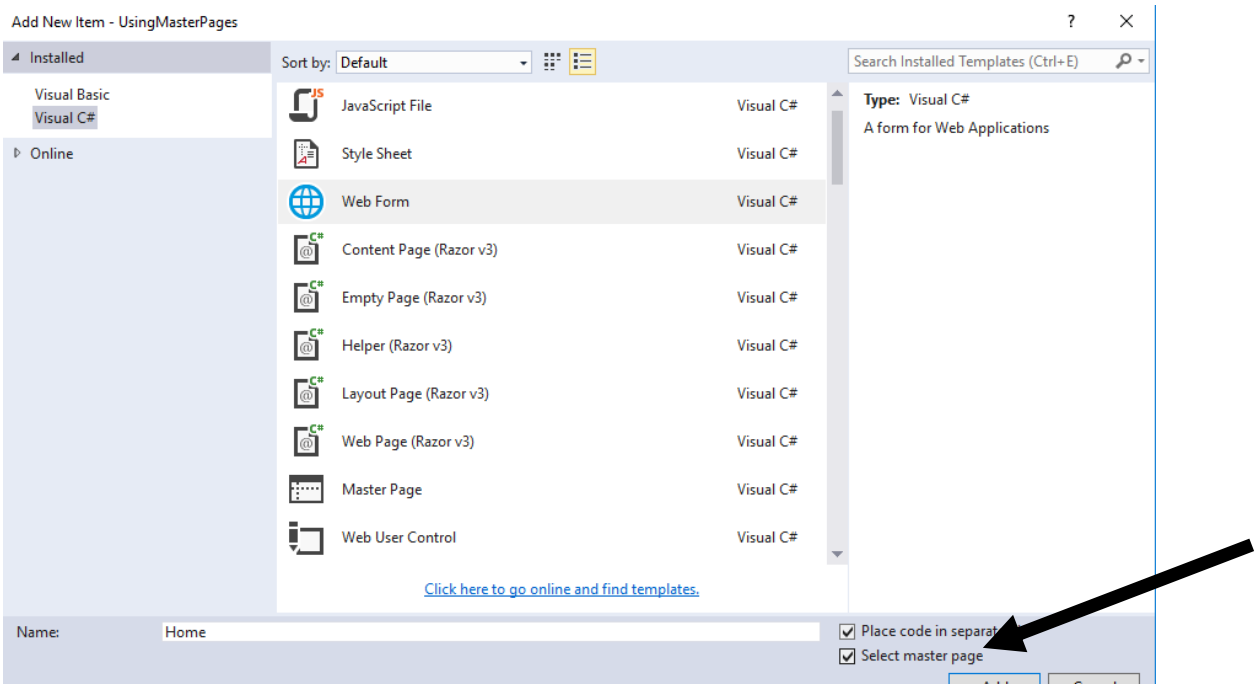
```
                    <marquee>Today! We are learing
                            Using Master Pages in ASP.Net</marquee>
                </td>
                </tr>
            <tr>
                <td></td>
                <td colspan="2">
     <div>
        <asp:ContentPlaceHolder id="ContentPlaceHolder1"
                                runat="server">
      </asp:ContentPlaceHolder>

    </div>
                </td>
            </tr>
            <tr>
                 <td colspan="3" align="center"> &copy;</td>
             </tr>
         </table>

    </form>
</body>
</html>
```

Finally, this is the complete Master Page Code. Now, Add a Web Form and Apply Master Page to this Web Form As Master Page is useless unless we not apply it to a page that will be opened inside the Master Page.

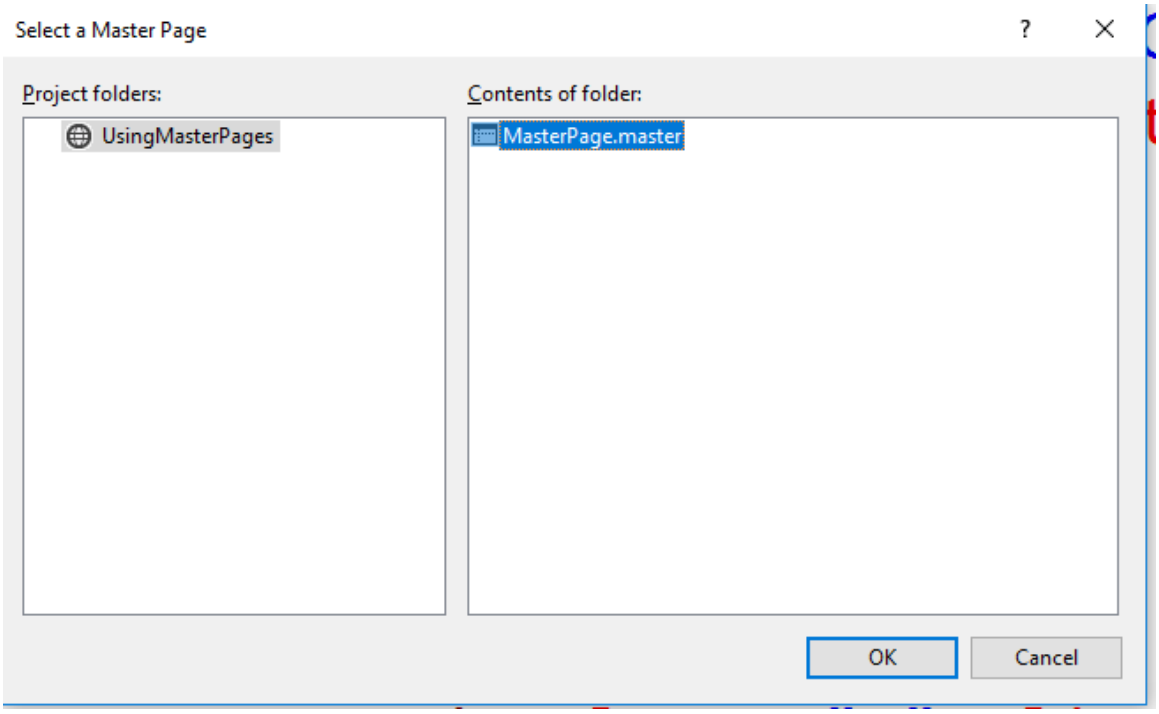
Here , we have learnt how to add and design a Master Page in ASP.Net. In the following Section, we will see how to apply Master Page to Web Form or Content Page.

1.3 Applying Master Page to the Content Page

1. Add a New Form by Right Click on the Web Site Name and Choose Web Form and at the bottom of the **Add New Item Window,** Check the **Apply Master Page Option** as shown



2. Then Press the **ADD button**, you will be shown all the Master Pages in your web site, here Select the required Master Page, as we can have multiple Master Pages in a single Web. For the time being we have only one Master Page for our web site. Press the **OK Button**,



3. You can see the following Code in the **Home.aspx** file. In this file, Developer can add the code for the Home.aspx page between the

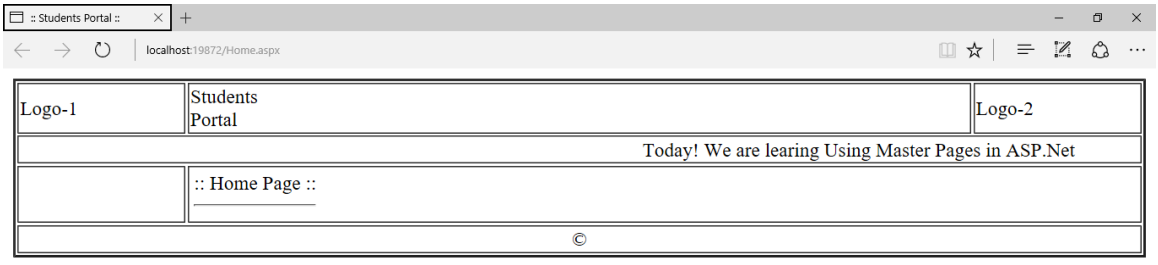
```
<asp:Content ID="Content2" ContentPlaceHolderID="ContentPlaceHolder1"
        Runat="Server">

Developer Area to do Code here for Home.aspx Page
</asp:Content>
```

```
<%@ Page Title="" Language="C#" MasterPageFile="~/MasterPage.master"
            AutoEventWireup="true" CodeFile="Home.aspx.cs" Inherits="Home" %>

<asp:Content ID="Content1" ContentPlaceHolderID="head" Runat="Server">
</asp:Content>

<asp:Content ID="Content2" ContentPlaceHolderID="ContentPlaceHolder1"
                Runat="Server">
</asp:Content>
```

As an example code is given here.

```
<%@ Page Title="" Language="C#" MasterPageFile="~/MasterPage.master"
            AutoEventWireup="true" CodeFile="Home.aspx.cs" Inherits="Home" %>

<asp:Content ID="Content1" ContentPlaceHolderID="head" Runat="Server">
</asp:Content>

<asp:Content ID="Content2" ContentPlaceHolderID="ContentPlaceHolder1"
                Runat="Server">
    <table>
        <tr>
            <td> :: Home Page :: <hr /></td>
        </tr>
    </table>
</asp:Content>
```

Finally, Save the file, and run the web site. You will see the following output



That is all, we want to do today….

1.4 Using Images in the Header of the Site

To manage a site in an efficient way, place the similar type of items in the folders. In a web site we may have a no of images. So we have to add a folder named Images, in which we place all of the site images.

To add a folder and rename the folder to Images, follow the steps shown below:

➔ Right Click the Web Site and

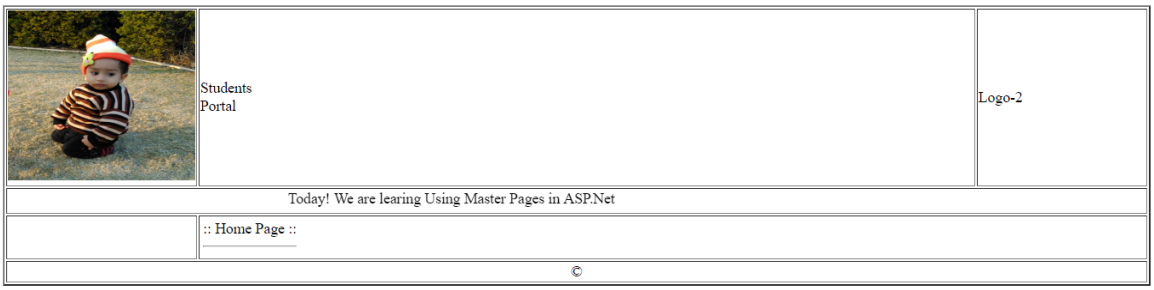
➔ Choose Add ➔ **New Folder** option and rename the Folder to **Images**

➔ Copy some Images to this folder by simple Copy & Paste Options.

➔ After adding Images to the folder, open the Master Page in **Source Code** View. Look for the <TD> in the first <TR> of the above designed Master Page and add image using <IMG> tag. This code is shown here

```
<tr>
    <td width="15%">
    <img src="Images/DSC_0386 (3).jpg" width="200" height="180" />
    </td>
    <td>Students <br />Portal</td>
    <td width="15%">Logo-2</td>
</tr>
```

➔ Finally, Save and run the web site



You can set its Height and Width property according to your site requirements:

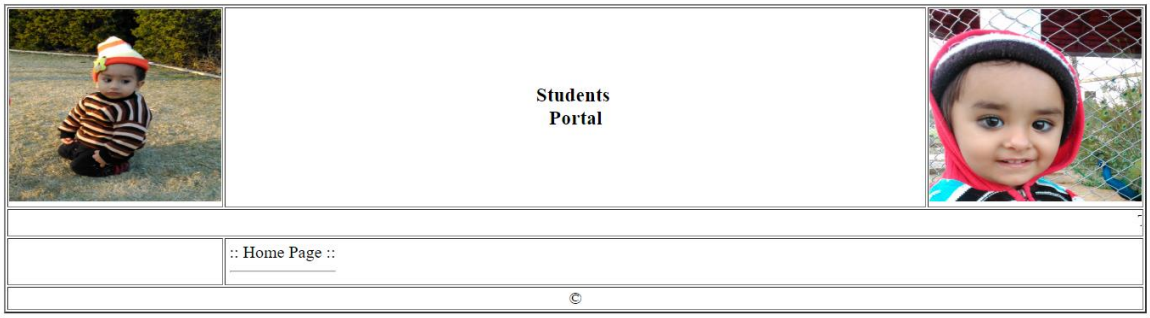
Here, we set the

Height = 180 and Width = 200

Similarly, add the second image in the third <TD> of the same <TR> . Thus the complete code of first <TR> is shown here

```
16          <tr>
17              <td width="15%">
18              <img src="Images/DSC_0386 (3).jpg" width="200" height="180" />
19              </td>
20              <td align="center"><h3>Students <br />Portal</h3></td>
21              <td width="15%">
22                  <img src="Images/DSC_0395 (2).jpg" width="200" height="180" />
23              </td>
24          </tr>
```

Thus, the site is furnished with images. In this way, you can add images as much as and anywhere in your web site. The final output is



Congratulations! You have successfully used the Master Pages in ASP.NET Web Sites

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