ASP.NET Web Forms

By Derek Peacock

Master Pages

```
<%@ Master Language="C#" AutoEventWireup="true" CodeBehind="WebDev5.master.cs"
    Inherits="WebAsssitant2.WebDev5.Masters.WebDev5" %>
<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
    <asp:ContentPlaceHolder ID="head" runat="server">
        <%--Page Specific Additions Here--%>
    </asp:ContentPlaceHolder>
</head>
<body>
    <form id="form1" runat="server">
    <div>
        <asp:ContentPlaceHolder ID="ContentPlaceHolder1" runat="server">
            <%--Page Specific Content Here--%>
        </asp:ContentPlaceHolder>
    </div>
    </form>
</body>
</html>
```

Notice that the master page contains an HTML5 page with two placeholders. The placeholders are ASP controls that need to be submitted to a server before they are converted into appropriate HTML. Also the HTML page body contains a form. In Web Forms a web page can only contain a single form. There is also a comment at the top of the file which defines which language is being used in the code behind file. In this case there is a C# code behind file in which code can be placed to process user requests made when the web page is displayed.

In HTML it is possible to add code in a variety of languages, JavaScript being the most widely used. However it is much better to separate the pages functionality in separate code files than to mix it with HTML whose purpose is to contain the page content.

Master Page <head>

```
<head id="Head1" runat="server">
    <title></title>
    <meta charset="utf-8" lang="en" />
    <link href="../Content/reset.css" rel="stylesheet" />
    <link href="../Content/MainStyles.css" rel="stylesheet" />
    <link href="../Content/Responsive-gs/responsive.gs.12col.css"
    <asp:ContentPlaceHolder ID="head" runat="server">
        <%--Page Specific Additions Here--%>
    </asp:ContentPlaceHolder>
</head>
```

Store the master page in a folder

The <head> of the master page contains all the links to the style sheets used to control the web sites overall look and feel. Master pages are usually stored inside a Masters folder thus all the links need to be updated!

Master Page <body>

```
<body>
    <form id="form1" runat="server">
        <div class="container">
            <!-- Website Name & Strapline-->
            <header>...</header>
            <!--Main Menu Bar-->
            <nav class="clearfix">...</nav>
            <asp:ContentPlaceHolder ID="ContentPlaceHolder1" runat="server">
                <%--Page Specific Content Here--%>
            </asp:ContentPlaceHolder>
        </div>
        <!--Footer-->
        <footer>...</footer>
    </form>
</body>
```

The body of the master page contains the container <div>, the <header>, the <nav> and the <footer> with the placeholder.

Using the Master Page

```
<%@ Page Title="" Language="C#" MasterPageFile="~/WebDev5/Masters/WebDev5.Master"
    AutoEventWireup="true" CodeBehind="PeacocksWines.aspx.cs"
    Inherits="WebAsssitant2.WebDev5.PeacocksWines" %>
<asp:Content ID="Content1" ContentPlaceHolderID="head" runat="server">
</asp:Content>
<asp:Content ID="Content2" ContentPlaceHolderID="ContentPlaceHolder1" runat="server">
    <!--Red Wine Filters (use <ul>) -->
    <div class="row">
        <aside class="col span_2">...</aside>
        <!--Main Content Area-->
        <section class="col span_10">
            <!--Summary of the selected wines-->
            <h2>Margaux Red Wines</h2>
            <p>...</p>
            <p>...</p>
            <!--1st Selected Wine-->
            <article class="row">...</article>
            <!--2nd Selected Wine-->
            <article class="row">...</article>
            <!--3rd Selected Wine-->
            <article class="row">...</article>
        </section>
    </div>
</asp:Content>
```

Adding a new item **Web Form Using Master Page** provides a page with two content regions matching the two placeholders in the chosen master page. In this case one row <div> with an <aside> and one <section>. The <section> contains in this case three <articles>.

Browser View

About Web Page

```
<%@ Page Title="" Language="C#" MasterPageFile="~/WebDev5/Masters/WebDev5.Master" AutoEv
<asp:Content ID="Content1" ContentPlaceHolderID="head" runat="server">
</asp:Content>
<asp:Content ID="Content2" ContentPlaceHolderID="ContentPlaceHolder1" runat="server">
    <!--Main Content Area-->
    <section>
        <h2>About Us</h2>
        <p>
            Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus non erat
        </p>
    </section>
</asp:Content>
```

Peacock's French Wines

Top Quality @ Rock Bottom Prices

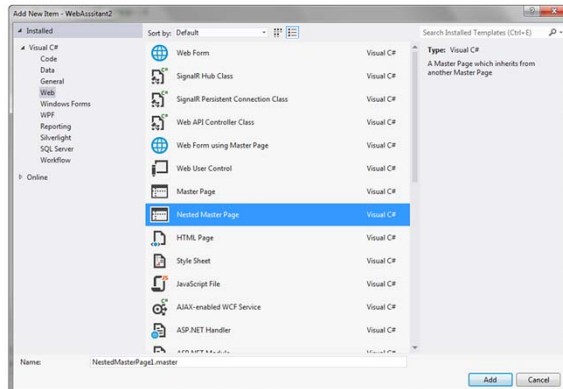| Home | Red Wines | White Wines | Sparkling Wines | Contact Us | About Us |

About Us

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Unnecessary Duplication

- Which pages will contain unnecessary duplication using this master page?
- The only solution is to use nested master pages

Nested Masters

- Top Level Master
  - Header
  - Main Menu Bar
  - Footer
- Nested Master 1
  - Aside Navigation
- ASP Form
  - Main Content

If the side bar is used for secondary navigation and that navigation is the same for several pages, then Nested Masters is the only way in Web Forms to go in order to avoid unnecessary duplication. Several different Nested master can use the same top level master as their parent. In MVC a much better solution is available. Even Dreamweaver has a better solution using templates and library items to control the duplication.