# Assignment 02 Part 2 - Introduction to Code-Behind and Styling

In this assignment you will be taking your form from assignment 1 and importing it into a web application with styles applied. You will also need to use code-behind to write data to a text file and later recall that text file. Beyond that you will need to validate some of the data coming back from the user to ensure required fields are filled out.

Before starting on this application read about the following topics

* Web Application Project versus Web Site Projects - <http://msdn.microsoft.com/en-us/library/dd547590%28v=vs.100%29.aspx>
* ASP.NET Web Applications - <http://msdn.microsoft.com/en-us/library/aa983474%28v=vs.100%29.aspx>
* ASP.NET Page Life Cycle - <http://msdn.microsoft.com/en-us/library/ms178472%28v=vs.100%29.aspx>
* Master Pages - <http://msdn.microsoft.com/en-us/library/wtxbf3hh%28v=vs.100%29.aspx>
* ASP.NET Validation Controls - <http://msdn.microsoft.com/en-us/library/debza5t0%28v=vs.100%29.aspx>
* ASP.NET Code-Behind Model - <http://support.microsoft.com/kb/303247>
* Reading/Writing a text document - <http://msdn.microsoft.com/en-us/library/6ka1wd3w.aspx>
* GridView Class - <http://msdn.microsoft.com/en-us/library/system.web.ui.webcontrols.gridview.aspx>
* CSS Floating - <http://css.maxdesign.com.au/floatutorial/>

### Web Application

First you will need to open Visual Studio 2010 and start a new project from the file menu. For project type select “ASP.Net **Empty** Web Application” under **Visual C#**. There are many different project types, but for now we are focusing just on a Web Application.

### Master Page

You will need to use master pages to create a template for your web application. You can add a new master page by right clicking your project and going to Add -> Add New Item –> Master Page. Create your master page and customize it before proceeding. It will be good to understand what content place holders and content sections are. Your master page should include a navigation section with links to each of the two web forms you will be creating.

### Web Forms

Your application will need two pages (web forms). These will be default.aspx and admin.aspx. Both of these should be of type Web Form Using Master Page. These can be added in the same way master pages are added. They should both use your newly created master page.

### Default.aspx

Default.aspx will contain the form you created in Assignment 1. Now that we are making this a web application you will need to convert your HTML controls into Web Form Controls. If you open default.aspx you will notice that there are tabs for Design, Split, and Source. If you click on the Design tab, you will see what your form currently looks like. You will also have a toolbox available to you, which has a list of controls. These controls are web form controls and you should be able to drag and drop them on your form. Replace all your HTML controls with the ones from the toolbox.

You will need to give them all relevant IDs, which can be done in the properties window. Once you have added a few to the form you can switch over to the Source tab to view the markup for the control. You will notice they are all prefixed with <asp: and all of them have runat=”server” appended to their properties. <asp: indicated they are coming from the defined namespace asp and runat=”server” tells the server that they will interact with the code-behind and should be processed by the server.

If you debug your application (under the debug menu) it should load up the form in a web browser. If you view the source of that page, you will notice that the <asp: tags have been rendered into actual HTML tags.

When you add your submit button, you will need to add an event to the button. To do this, select the button in the Design view. At the top of the properties window you will see. If you select the lightning bolt, there will be a listing of all events that can be tied to the button. Double click in the empty column next to “Click.” This will bring you over to code-behind, which is the actual C# that is running when a user clicks on “Submit.”

You will need to use the information you learned about validators to make the following fields required:

* First Name
* Last Name

Your application will need to write submissions back to a text file in the App\_Data folder. You can add this folder by going right clicking on the project and selecting Add -> Add ASP.NET Folder -> App\_Data. Since this is going to run on a web server, getting the file path for the text file you are writing to is not as simple as saying app\_data/results.txt. Instead you need to ask the server to give you the folder path by using the following: **Server.MapPath("~/App\_Data/results.txt")**.This will return the file path in a string for the text document.

The last thing you will need to do is ensure that the label for each control on your form is to the left of the control. You can achieve this by using **div floating**. This is done with CSS and you can research it online. In the end you will need to wrap both your label and your control in a div that are both floated. If you do this correctly, all of your labels should be the exact same width.

### Admin.aspx

This page will need to read the results from the text file you are writing to in default.aspx and display the results in a grid view control.