Community Experience Distilled

Bootstrap for ASP.NET MVC

Incorporate Bootstrap into your ASP.NET MVC projects and make your websites more user friendly and dynamic

Pieter van der Westhuizen

[PACKT] PUBLISHING open source* community experience distilled

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BIRMINGHAM - MUMBAI

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Preface

Twitter Bootstrap, simply known as Bootstrap, is the leading open source CSS/HTML and JavaScript framework on the Internet. Shortly after its launch, it became the most popular project on GitHub. It became so popular that Microsoft announced at their Build 2013 conference that all the web app project templates in Visual Studio 2013 will use Twitter Bootstrap by default.

One of the main reasons why Bootstrap is so prevalent is that it allows developers, many of whom are notoriously bad at user interface design, to build aesthetically pleasant-looking sites with a relatively small amount of effort. Bootstrap also offers a rich ecosystem of free and commercial templates, third-party components, tools, and an active and helpful community.

Using CSS frameworks and Bootstrap in particular with ASP.NET MVC is a natural fit. Bootstrap takes care of the typography, form layouts, and user interface components, and allows the developer to focus on what they are good at, that is, writing code. This aspect is particularly valuable for smaller development companies that do not necessarily have an in-house designer. Bootstrap Version 3 introduced a mobile-first approach, meaning all sites built with Bootstrap will be automatically responsive and optimized to be displayed on devices with smaller screens.

What this book covers

Bootstrap for ASP.NET MVC walks you through the process of creating a fully functioning ASP.NET MVC website, using Bootstrap for its layout and user interface.

Chapter 1, *Getting Started with ASP.NET MVC and Bootstrap*, focuses on getting started with Bootstrap, from where to get the files, how to include them in your project, and takes a closer look at the default ASP.NET MVC project template. We'll also look at the benefits of bundling and minification of CSS and JavaScript.

Chapter 2, *Using Bootstrap CSS and HTML Elements*, examines the various Bootstrap CSS and HTML elements, how to include them in your ASP.NET MVC project, and how to configure and use their various options.

Chapter 3, *Using Bootstrap Components*, will be building on what we've learned in *Chapter 2*, *Using Bootstrap CSS and HTML Elements*. This chapter scrutinizes the different components such as navigation, alerts, progress bars, button groups, and badges.

Chapter 4, *Using Bootstrap JavaScript Plugins*, illustrates the use of Bootstrap's JavaScript plugins. We will be experimenting with modal dialogs, contextual dropdowns, tooltips, buttons, and UI components such as accordion and carousel.

Chapter 5, *Creating ASP.NET MVC Bootstrap Helpers*, guides you through the process of reducing the amount of HTML needed to generate Bootstrap elements by creating ASP.NET MVC helper methods and classes.

Chapter 6, *Creating T4 Templates to Scaffold Bootstrap Views*, moves on to the more advanced topic of creating T4 templates in order to generate Bootstrap-themed scaffolded views.

Chapter 7, *Converting a Bootstrap HTML Template into a Usable ASP.NET MVC Project*, shows how we can convert an open source HTML template and make it ready to be used with ASP.NET MVC.

Chapter 8, *Using the jQuery DataTables Plugin with Bootstrap*, demonstrates how to use the powerful jQuery DataTables plugin with Bootstrap and ASP.NET in order to show tabular data.

Chapter 9, *Making Things Easier with the TwitterBootstrapMVC Library*, examines the TwitterBootstrapMVC library, which contains a host of prebuilt HTML helpers to make the inclusion of Bootstrap components in ASP.NET MVC easier.

Appendix, *Bootstrap Resources*, provides a list of free Bootstrap resources, themes, and tools.

What you need for this book

To get the most out of this book, you'll need Visual Studio 2013 and a modern browser. All examples have been tested with Visual Studio 2013, Google Chrome, and Mozilla Firefox. This book will be beneficial to those with experience ranging from the entry level to the advanced level in ASP.NET MVC development, as well as limited experience in Bootstrap.

Who this book is for

This book is for ASP.NET MVC developers who would like to know how to incorporate Bootstrap into their projects. ASP.NET MVC developers could also benefit from the chapters that cover advanced topics, such as creating helpers and using the jQuery DataTables plugin. If you have limited experience in ASP.NET MVC and Bootstrap, this book can serve as a primer to these technologies.

Conventions

In this book, you will find a number of styles of text that distinguish between different kinds of information. Here are some examples of these styles, and an explanation of their meaning.

Code words in text, database table names, folder names, filenames, file extensions, pathnames, dummy URLs, user input, and Twitter handles are shown as follows: "We would only need to include the `bootstrap.css` file into our project for the Bootstrap styles to be applied to our pages."

A block of code is set as follows:

```
<system.web>
  <compilation debug="true" targetFramework="4.5" />
  <httpRuntime targetFramework="4.5" />
</system.web>
```

When we wish to draw your attention to a particular part of a code block, the relevant lines or items are set in bold:

```
<script src="https://ajax.googleapis.com/ajax/libs/jquery/1.11.0/
jquery.min.js"></script>
<script src="/bootstrap/js?v=raqa-So7giLQpXYq5LQiW8D-
yNoxOAJewB8VXtgFHfE1"></script>
</body>
</html>
```

Any command-line input or output is written as follows:

```
Install-Package jquery.datatables
```

New terms and **important words** are shown in bold. Words that you see on the screen, in menus or dialog boxes for example, appear in the text like this: "Right-click on the `Controller` folder in the **Solution Explorer** section and navigate to **Add | Controller…**."

Warnings or important notes appear in a box like this.

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1
Getting Started with ASP.NET MVC and Bootstrap

As developers, we can find it difficult to create great-looking user interfaces from scratch when using HTML and CSS. This is especially hard when developers have years of developing Windows Forms applications experience. Microsoft introduced Web Forms to abstract the complexities of building websites away for Windows Forms developers and to ease the switch from Windows Forms to the Web, this in turn made it very hard for Web Forms developers to switch to ASP.NET MVC and even harder for Windows Forms developers.

Twitter Bootstrap is a set of stylized components, plugins, and a layout grid that takes care of the heavy lifting. Microsoft included Bootstrap in all ASP.NET MVC project templates since 2013. In the sample project, we'll start by creating a new ASP.NET MVC project either by using the standard Visual Studio MVC project template or by starting with an empty MVC project and adding the necessary files as we need them.

In this chapter, we will cover the following topics:

- The files included in the Bootstrap distribution
- How to create an ASP.NET MVC site using the standard Visual Studio project template and Bootstrap
- How to create an empty ASP.NET MVC site and add the Bootstrap files manually
- How to create a `Layout` file that references the Bootstrap files
- Adding Bootstrap files using NuGet
- Improving site performance with bundling and minification