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You: Programmer and Search Engine Marketer

Googling for information on the World Wide Web is such a common activity these days that it is hard to imagine that just a few years ago this verb did not even exist. Search engines are now an integral part of our lifestyle, but this was not always the case. Historically, systems for finding information were driven by data organization and classification performed by humans. Such systems are not entirely obsolete — libraries still keep their books ordered by categories, author names, and so forth. Yahoo! itself started as a manually maintained directory of web sites, organized into categories. Those were the good old days.

Today, the data of the World Wide Web is enormous and rapidly changing; it cannot be confined in the rigid structure of the library. The format of the information is extremely varied, and the individual bits of data — coming from blogs, articles, web services of all kinds, picture galleries, and so on — form an almost infinitely complex virtual organism. In this environment, making information *findable* necessitates something more than the traditional structures of data organization or classification.

Introduce the ad-hoc query and the modern search engine. This functionality reduces the aforementioned need for organization and classification; and since its inception, it has been become pervasive. Google's popular email service, GMail, features its searching capability that permits a user to find emails that contain a particular set of keywords. Microsoft Windows Vista now integrates an instant search feature as part of the operating system, helping you quickly find information within any email, Word document, or database on your hard drive from the Start menu regardless of the underlying file format. But, by far, the most popular use of this functionality is in the World Wide Web search engine.

These search engines are the exponents of the explosive growth of the Internet, and an entire industry has grown around their huge popularity. Each visit to a search engine potentially generates business for a particular vendor. Looking at Figure 1-1 it is easy to figure out where people in Manhattan are likely to order pizza online. Furthermore, the traffic resulting from non-sponsored, or organic, search results cost nothing to the vendor. These are highlighted in Figure 1-1.

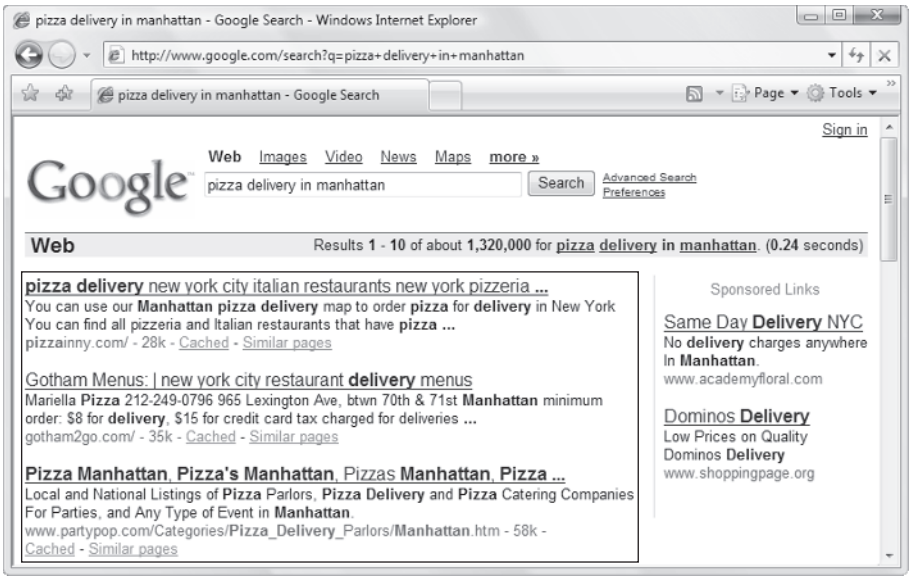

Figure 1-1

The less obvious effect of the search engine explosion phenomenon is that web developers are now directly involved in the search engine marketing process. To rank well in these organic results, it may not be enough to "write relevant content," as the typical search engine marketing tutorial drones. Rather, the web application developer must work together with the marketing team, and he or she must build a web site fully aware that certain features or technologies may interfere with a search engine marketing campaign. An improperly designed web site can interfere with a search engine's need to periodically navigate and index the information contained therein. In the worst case, the search engine may not be able to index the content at all.

So, ironically, while users are becoming less interested in understanding the structure of data on the Internet, the structure of a web site is becoming an increasingly important facet in search engine marketing! This structure — the architecture of a web site — is the primary focus of this book.

We hope that this brief introduction whets your appetite! The remainder of this chapter tells you what to expect from this book. You will also configure your development machine to ensure you won't have any problems following the technical exercises in the later chapters.

Who Are You?

Maybe you're a great programmer or IT professional, but marketing isn't your thing. Or perhaps you're a tech-savvy search engine marketer who wants a peek under the hood of a search engine optimized web site. Search engine marketing is a field where technology and marketing are both critical and interdependent, because small changes in the implementation of a web site can make you or break you in search engine rankings. Furthermore, the fusion of technology and marketing know-how can create web site features that attract more visitors.

The mission of this book is to help web developers create web sites that rank well with the major search engines, and to teach search engine marketers how to use technology to their advantage. We assert that neither marketing nor IT can exist in a vacuum, and it is essential that they not see themselves as opposing forces in an organization. They *must* work together. This book aims to educate both sides in that regard.

The Story

So how do a search engine marketer from the USA (Jaimie) and a programmer from Romania (Cristian) meet? To answer, we need to tell you a funny little story. A while ago, Jaimie happened to purchase a book that shall remain nameless written by Cristian, and was not pleased with one particular aspect of its contents. Jaimie proceeded to grill him with some critical comments on a public web site. Ouch!

Cristian contacted Jaimie courteously, and explained most of it away. No, we're not going to tell you the name of the book, what the contents were, or whether it is still in print. But things did eventually get more amicable, and we started to correspond about what we do for a living. Jaimie is a web site developer and search engine marketer, and Cristian is a software engineer who has published quite a few books in the technology sector. As a result of those discussions, the idea of a technology-focused search engine optimization book came about. The rest is more or less history.

What Do You Need to Learn?

As with anything in the technology-related industry, one must constantly learn and research to keep apprised of the latest news and trends. *How exhausting!* Fortunately, there are fundamental truths with regard to search engine optimization that are both easy to understand and probably won't change in time significantly — so a solid foundation that you build now will likely stand the test of time.

We remember the days when search engine optimization was a black art of analyzing and improving on-page factors. Search engine marketers were obsessed over keyword density and which HTML tags to use. Many went so far as to recommend optimizing content for different search engines individually, thusly creating different pages with similar content optimized with different densities and tags. Today, that would create a problem called *duplicate content*.

The current struggle is creating a site with interactive content and navigation with a minimal amount of duplicate content, with URLs that do not confuse web spiders, and a tidy internal linking structure. There is a thread on SearchEngineWatch (`http://www.searchenginewatch.com`) where someone asked which skill everyone reading would like to hone. Almost all of them enumerated programming as one of the skills (`http://forums.searchenginewatch.com/showthread.php?t=11945`). This does not surprise us. Having an understanding of both programming and search engine marketing will serve one well in the pursuit of success on the Internet.

When people ask us where we'd suggest spending money in an SEO plan, we always recommend making sure that one is starting with a sound foundation. If your web site has architectural problems, it's tantamount to trumpeting your marketing message atop a house of cards. *Professional Search Engine Optimization with ASP.NET: A Developer's Guide to SEO* aims to illustrate how to build that foundation.

To get the most out of this journey, you should be familiar with a bit of web programming (ideally, with ASP.NET and C#). Some of the examples also use databases, so a bit of experience with SQL Server 2005 would also be very useful. You can also get quite a bit out this book by only reading the explanations. And another strategy to reading this book is to do just that — then hand this book to the web developer with a list of concerns and directives in order to ensure the resulting product is search engine optimized. In that case, don't get bogged down in the exercises — just skim them.

We cover a quick introduction to SEO in Chapter 2, which should nail down the foundations of that subject. However, ASP.NET, C#, and SQL Server are vast subjects; and this book cannot afford to teach them. The code samples are explained step by step, but if you have never built an ASP.NET application, or have never written an SQL command before, you should consider reading a tutorial for these technologies, such as the following:

- *Build Your Own ASP.NET 2.0 Web Site Using C# & VB* by Cristian Darie and Zak Ruvalcaba (Sitepoint, 2006)
- *Beginning ASP.NET 2.0* by Chris Hart & co. (Wiley Publishing, Inc., 2005)

SEO and the Site Architecture

A web site's architecture is what grounds all future search engine marketing efforts. The content rests on top of it, as shown in Figure 1-2. An optimal web site architecture facilitates a search engine in traversing and understanding the site. Therefore, creating a web site with a search engine optimized architecture is a major contributing factor in achieving and maintaining high search engine rankings.

Architecture should also be considered throughout a web site's lifetime by the web site developer, alongside other factors such as aesthetics and usability. If a feature of a web site does not permit a search engine to access the content, hinders it, or confuses it, the effects of good content may be reduced substantially. For example, a web site that uses Flash or AJAX technologies inappropriately may obscure the majority of its content from a search engine.

We do not cover copywriting concepts in detail, or provide much coaching as to how to create persuasive page titles. These are also very important topics, which are masterfully covered by Bryan and Jeffrey Eisenberg in *Persuasive Online Copywriting: How to Take Your Words to the Bank* (Wizard Academy Press, 2002), and by John Caples and Fred E. Hahn in *Tested Advertising Methods, 5th edition* (Prentice Hall, 1998). Shari Thurow also has an excellent section on creating effective titles in her book, *Search Engine Visibility, 2nd edition* (New Riders Press, 2007). Copy and titles that rank well are obviously not really successful if they do not convert or result in click-throughs, respectively. We do give some pointers, though, to get you started.

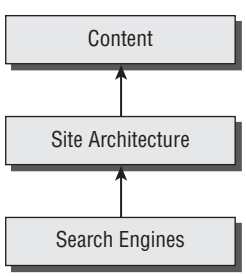

Figure 1-2

We also do not discuss concepts related to search engine optimization such as usability and user psychology in depth, though they are strong themes throughout the book.

Optimizing a site's architecture frequently involves tinkering with variables that also affect usability and the overall user perception of your site. When we encounter such situations, we alert you to why these certain choices were made. Chapter 5, "Duplicate Content," highlights a typical problem with breadcrumbs and presents some potential solutions. Sometimes we find that SEO enhancements run counter to usability. Likewise, not all designs that are user friendly are search engine friendly. Either way, a compromise must be struck to satisfy both kinds of visitors — users and search engines.

SEO Cannot Be an Afterthought

One common misconception is that search engine optimization efforts can be made after a web site is launched. This is frequently incorrect. Whenever possible, a web site can and should be designed to be search engine friendly as a fundamental concern.

Unfortunately, when a preexisting web site is designed in a way that poses problems for search engines, search engine optimization can become a larger and more difficult task. If a web site has to be redesigned, or even partially redesigned, the migration process frequently necessitates special technical considerations. For example, if URLs are changed, old URLs must be *properly* redirected to new ones with similar relevant content.

The majority of this book documents best practices for design from scratch as well as how to mitigate redesign problems and concerns. The rest is dedicated to discretionary enhancements.

Communicating Architectural Decisions

The aforementioned scenario regarding URL migration is a perfect example of how the technical team and marketing team must communicate. The programmer must be instructed to add the proper redirects to the web application. Otherwise, existing search rankings may be hopelessly lost forever. Marketers must know that such measures must be taken in the first place.

In a world where organic rankings contribute to the bottom line, a one-line redirect command in a web server configuration file may be much more important than one may think. This particular topic, URL migration, is discussed in Chapter 4.

Architectural Minutia Can Make or Break You

So you now understand that small mistakes in implementation can be quite insidious. Another common example would be the use of JavaScript-based navigation, and failing to provide an HTML-based alternative. Spiders would be lost, because they, for the most part, do not interpret JavaScript.

The search engine spider is "the third browser." Many organizations will painstakingly test the efficacy and usability of a design in Internet Explorer and Firefox with dedicated QA teams. *Unfortunately, many fall short by neglecting to design and test for the spider.* Perhaps this is because you have to design in the abstract for the spider; we don't have a Google spider at our disposal after all, and we can't interview it afterwards with regard to what it thought of our "usability." However, that does not make its assessment any less important.

The Spider Simulator tool located at `http://www.seochat.com/seo-tools/spider-simulator/` shows you the contents of a web page from the perspective of a hypothetical search engine. The tool is very simplistic, but if you're new to SEO, using it can be an enlightening experience.

Preparing Your Playground

This book contains many exercises, and all of them assume that you've prepared your environment as explained in the next few pages. You will install the following applications:

- Visual Web Developer 2005 Express Edition. This is a free and powerful tool from Microsoft that you can use to develop ASP.NET 2.0 web sites. It includes features such as IntelliSense (Microsoft's code auto-completion technology), code formatting, database integration with the ability to design databases visually, debugging, and much more. All the features of Visual Web Developer are also supported by the more complex (and expensive) Visual Studio 2005 — so you can use that one instead if you have access to it.
- SQL Server 2005 Express Edition is the free, but fully functional version of SQL Server 2005, Microsoft's RDBMS (Relational Database Management System) product. It is a powerful database server that we'll use to store the data for our applications in this book that require database functionality.
- SQL Server Management Studio Express is a free SQL Server management interface. Although you can also interact with your databases using Visual Web Developer, using SQL Server Management Studio Express is preferable because its interface has been built solely for the purpose of working with SQL Server databases.

After installing the necessary software, you'll learn how to configure IIS (Internet Information Services) and the `seoasp` web site. All exercises you build in this book will be accessible on your machine through `http://seoasp/`. We'll create a simple test page in this application to ensure that your machine has been installed and configured properly.

Lastly, you'll prepare a SQL Server database named `seoasp`, which will be required for a few of the exercises in this book. The database isn't a necessity right now, so you can leave this task for when you'll actually need it in an exercise.

Installing Visual Web Developer 2005 Express Edition

Install Visual Web Developer 2005 Express Edition by following these simple steps:

1. Browse to `http://msdn.microsoft.com/vstudio/express/vwd/`.
2. Click the Download Now link. In the new page, click Download. You'll download a file named `vwdsetup.exe`.
3. Execute the downloaded file.
4. Accept the default options. At one moment you'll be asked about installing Microsoft MSDN 2005 Express Edition, which is the product's documentation. It wouldn't hurt to install it, but you need to be patient, because it's quite big. You will also be offered the option to install SQL

Server 2005 Express. If you choose to do so, you can skip the following section on installing the database server, except for the steps where you're instructed to install product updates.

5. Install the Visual Web Developer Service Pack 1. This is a separate download that can be found on the Visual Web Developer downloads page.

If you use Windows Vista, you should install the Service Pack 1 for Windows Vista.

6. Start Visual Web Developer to ensure it installed correctly. Its welcome screen should look similar to Figure 1-3.

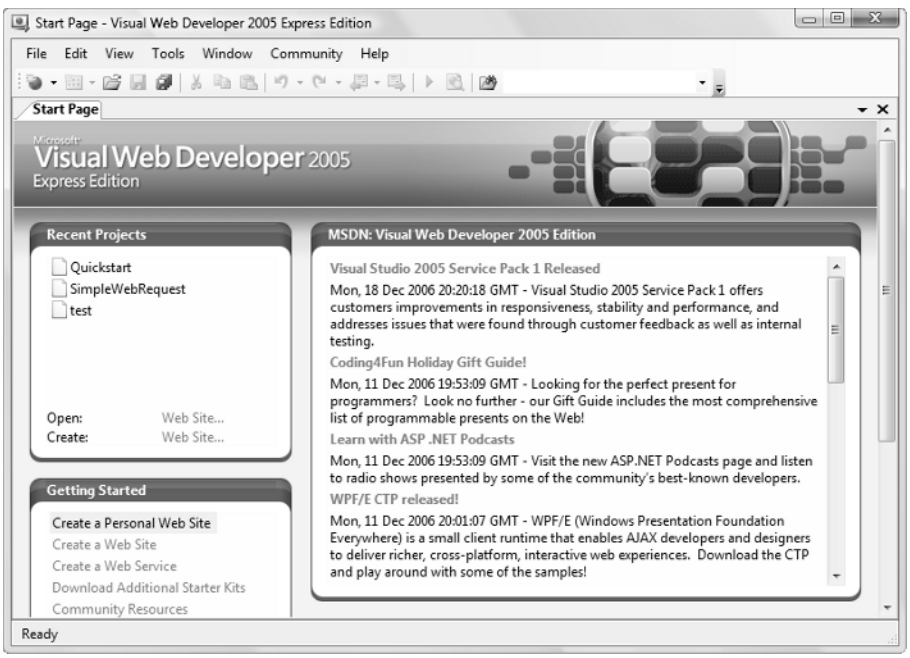

Figure 1-3

Installing SQL Server 2005 Express Edition

Install SQL Server 2005 Express Edition by following these steps:

1. Navigate to `http://msdn.microsoft.com/vstudio/express/sql/` and click the Download Now link.
2. You can choose between SQL Server 2005 Express Edition and SQL Server 2005 Express Edition with Advanced Services. In this book we won't use any of the advanced services from the second package, so either package would do the job.
3. Click Download. You'll download an installer file called `SQLEXPR.EXE`.
4. Execute the file and follow the steps to install the product. It's safe to use the default options all the way through.

5. Provided that everything goes well, at the end of the installation you will have a new SQL Server 2005 instance up and running, named `(local)\SqlExpress`.

> **If you're using Windows Vista, you must also install SQL Server 2005 Service Pack 2, which solves the authentication-related problems that occur in Vista. Find it at** `http://www.microsoft.com/sql/downloads/2005/default.mspx`**. After installing the service pack, reboot your system or start the SQL Server 2005 process manually.**

Installing SQL Server Management Studio Express

In order to use your SQL Server 2005 instance effectively, you'll need some sort of administration tool to work with your databases. SQL Server Management Studio Express is a free tool provided by Microsoft that allows you to manage your instance of SQL Server 2005. To install it, follow these steps:

1. Navigate again to `http://msdn.microsoft.com/vstudio/express/sql/` and click the Download Now link.
2. Download the SQL Server Management Studio Express edition that corresponds to the SQL Server 2005 version that you installed previously.
3. After the download completes, execute the file and follow the steps to install the product.

Installing IIS

IIS (Internet Information Services) is the web server included by Microsoft in its server-capable Windows versions. These are Windows Vista Business, Windows XP Professional, Windows XP Media Center Edition, Windows 2000 Professional, Server, Advanced Server, and Windows Server 2003, but it's not installed automatically in all versions. IIS isn't available (and can't be installed) with Windows XP Home Edition, Windows Vista Home Basic, or Windows Vista Home Premium.

To follow the examples in the book, you can use either IIS, or the web server included in Visual Web Developer 2005 — Cassini. Whenever possible, we suggest that you use IIS, because this resembles more accurately the environment in which an ASP.NET application would run on a web server.

To install IIS under Windows XP, follow these steps:

1. In the Control Panel, select Add or Remove Programs.
2. Choose Add/Remove Windows Components (in Windows XP).
3. In the list of components, select Internet Information Services, then click the Details button and make sure the IIS Frontpage Extensions node is checked.
4. Click Next or OK. Windows may prompt you to insert the Windows CD or DVD.
5. The final step involves configuring ASP.NET with IIS. Start a command-line console (Start ➪ Run ➪ cmd), and type the following commands:

```
cd C:\Windows\Microsoft.NET\Framework\v2.0.50727
aspnet_regiis.exe -i
```

Installing IIS under Windows Vista is a little bit different:

1. In the Control Panel, select Programs and Features.
2. Choose Turn Windows features on or off.
3. In the list of components, check Internet Information Services. Then select the following options:
   - World Wide Web Services ➪ Application Development Features ➪ ASP.NET
   - Web Management Tools ➪ IIS 6 Management Compatibility, and the IIS Metabase and IIS 6 configuration compatibility and IIS 6 WMI Compatibility sub-nodes
   - World Wide Web Services ➪ Security ➪ Windows Authentication

   Figure 1-4 shows these settings.
4. Click OK.

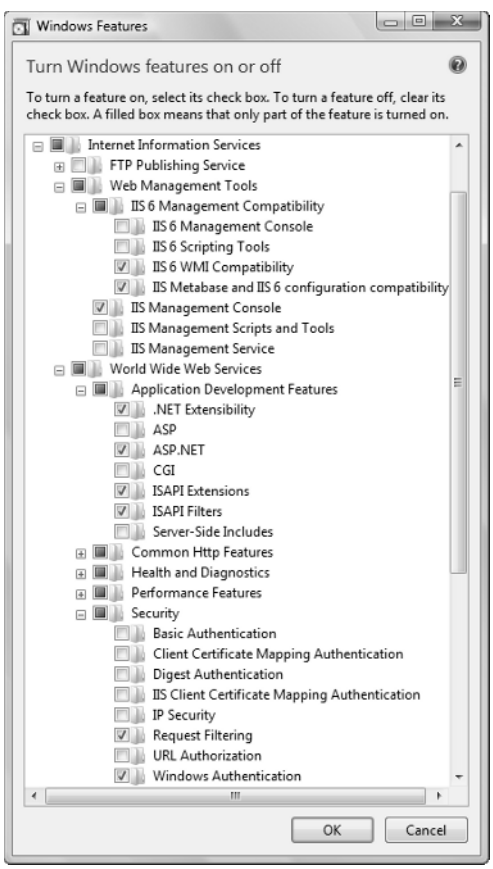

Figure 1-4

Creating the seoasp Web Site

To keep your hard drive tidy, we'll use a single web application for all the exercises in this book, which will be located in the `C:\seoasp\` folder. (Of course, you can use a different folder or location if you prefer.) We'll cover the web application setup steps for Windows Vista and Windows XP.

IIS 7 in Windows Vista supports multiple root web sites on the same web server, so we'll create a web site called `http://seoasp/`, which will point to the `C:\seoasp\` folder that you create for your application. This way, your new web site will not interfere with the existing `http://localhost/`.

IIS in Windows XP doesn't support multiple web sites, so we'll modify the `http://localhost/` web site to point to the `C:\seoasp\` folder that you create. For Windows XP we chose not to use a different host name (as in `http://seoasp/`) to avoid some common web site authentication problems. For the examples in the upcoming chapters, if using Windows XP, you should reference the web server using `http://localhost/`, not `http://seoasp/`.

Windows Vista: Creating the seoasp Application

If you're running Windows Vista, follow these steps to prepare your `seoasp` web site.

1. First, you need to add the `seoasp` host to the Windows `hosts` file. This will tell Windows that all domain name resolution requests for `seoasp` should be handled by the local machine instead of your configured DNS. Open the `hosts` file, which is located by default in `C:\Windows\System32\drivers\etc\hosts`, and add this line to it:

```
127.0.0.1       localhost
::1             localhost
127.0.0.1       seoasp
```

2. Next, create a folder named `seoasp` on `C:\`.
3. Open the IIS Manager tool from the Administrative Tools section of the Control Panel. Browse to the Default Web Site by navigating in the Connections tab, or by clicking the ViewWeb Sites link in the Actions tab — see Figure 1-5.
4. Right-click the Web Sites node, and select Add Web Site... from the context menu.
5. Type **seoasp** for the Web site name and for Host header, and C:\seoasp for its Physical path. Then click Select... and choose the Classic .NET AppPool. In the end, the Add Web Site dialog should look like Figure 1-6. Then click OK.
6. The `seoasp` web site will show up as a child node under the Web Sites node. Select the seoasp node, double-click the Authentication icon, and enable Windows Authentication.

Congratulations! Your work is now done here. Feel free to close the IIS Manager.

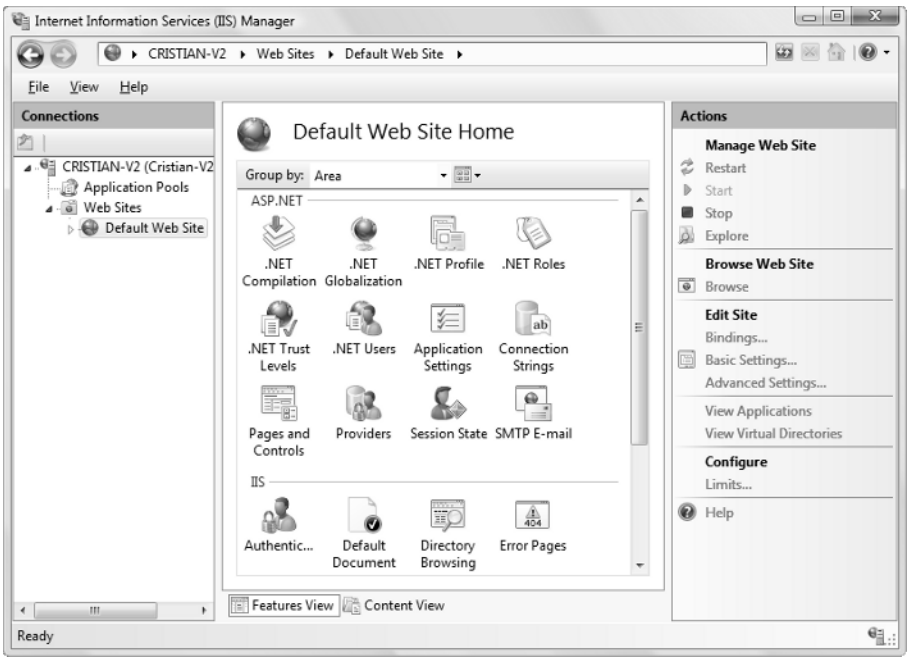

Figure 1-5

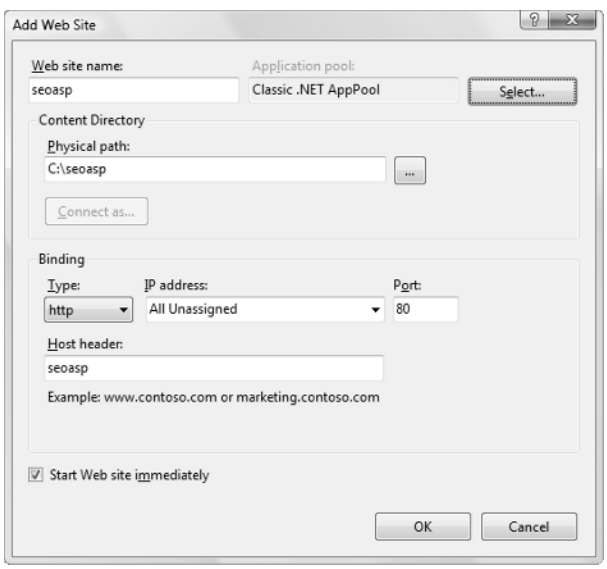

Figure 1-6

Windows XP: Preparing the seoasp Web Application

1. Create a folder named `seoasp` in `C:\`.
2. Open the Internet Information Services tool from the Administrative Tools section of the Control Panel. Expand the node of your local computer, and then expand the Web Sites node, as shown in Figure 1-7.

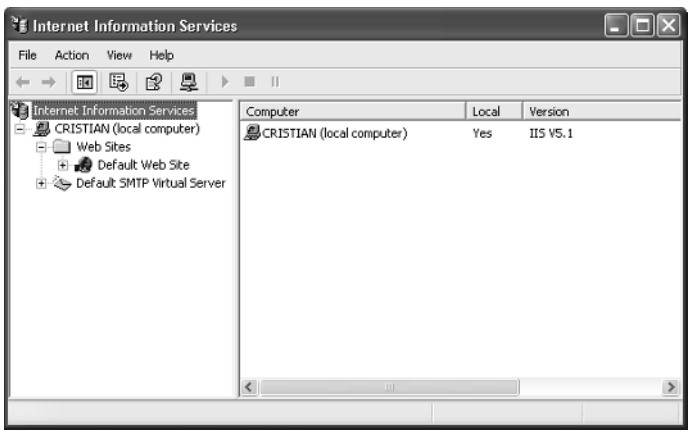

Figure 1-7

3. Right-click the Default Web Site node and select Properties.
4. Select the Home Directory tab and click the Browse button.
5. On the dialog window that shows up, select the `C:\seoasp\` folder that you created earlier and click OK.

Congratulations! Your work is now done here. Feel free to close the Internet Information Services tool.

Creating the seoasp Web Application

Here we'll create the `seoasp` web application at `http://seoasp/` (if you're using Windows Vista), or `http://localhost/` (if you're using Windows XP). If you decided to use Visual Web Developer's integrated web server (Cassini), at step 2 you'll need to select File System in the Location tab, and load your application from the file system rather than through the web server (IIS).

1. Start Visual Web Developer.

> **If you're using Windows Vista with the User Account Control feature activated, you'll need to run Visual Web Developer as Administrator.**

2. Select File ➪ New Web Site.... Leave the default ASP.NET Web Site template selected, and change the Location to the web location you've set up for your application — this should be

either **http://seoasp/** or **http://localhost/**. In this book we'll use Visual C# for the language, so be sure the language option is correctly selected, as shown in Figure 1-8. (Should your favorite language be Visual Basic .NET, the code should be reasonably simple to translate.)

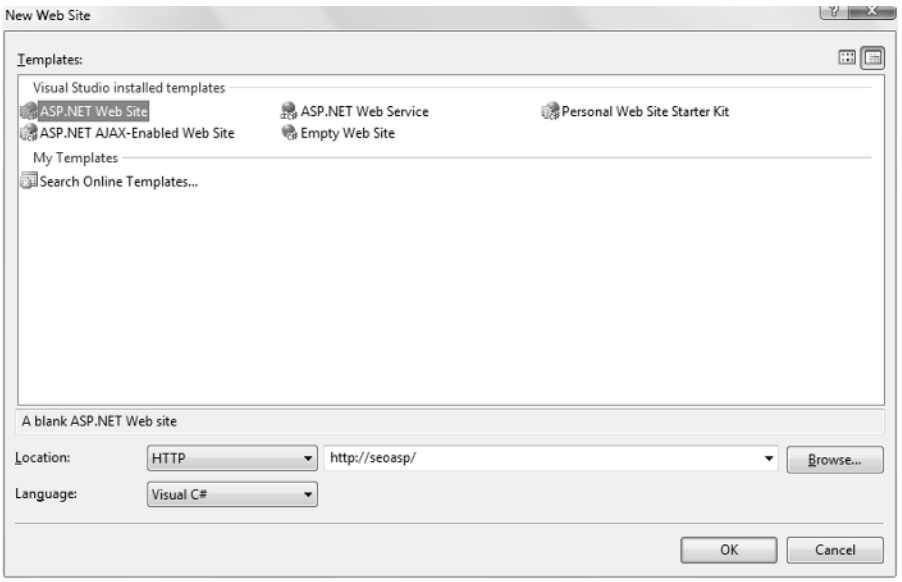

Figure 1-8

All the application screenshots in this book have been taken using Windows Vista and the `http://seoasp/` web location. You may need to adjust the web location depending on your specific setup.

3. After you click OK, Visual Web Developer will create a new project at the selected location. The initial window looks like that shown in Figure 1-9.

4. Modify the default content of `Default.aspx` like this:

```
<html xmlns="http://www.w3.org/1999/xhtml" >
<head runat="server">
  <title>Professional Search Engine Optimization with ASP.NET</title>
</head>
<body>
  <form id="form1" runat="server">
  <div>
    Welcome to Professional Search Engine Optimization with ASP.NET: A Developer's
Guide to SEO!
  </div>
  </form>
</body>
</html>
```

5. To ensure your system is properly configured to run and debug your project, hit **F5**. This is the default keyboard shortcut for the Start Debugging command, which means it starts your project in debug mode. The first time you start the project with debugging, Visual Web Developer will offer to create a configuration file for you (named `Web.config`), and activate the option that enables debugging for you — see Figure 1-10.

6. After you click OK, the default browser of your system will be launched to load your web application at `http://seoasp/`, as shown in Figure 1-11. (No matter what your preference is regarding web browsers, we generally recommend that you use Internet Explorer when you need to debug ASP.NET applications, because of the browser's tight integration with Visual Web Developer.)

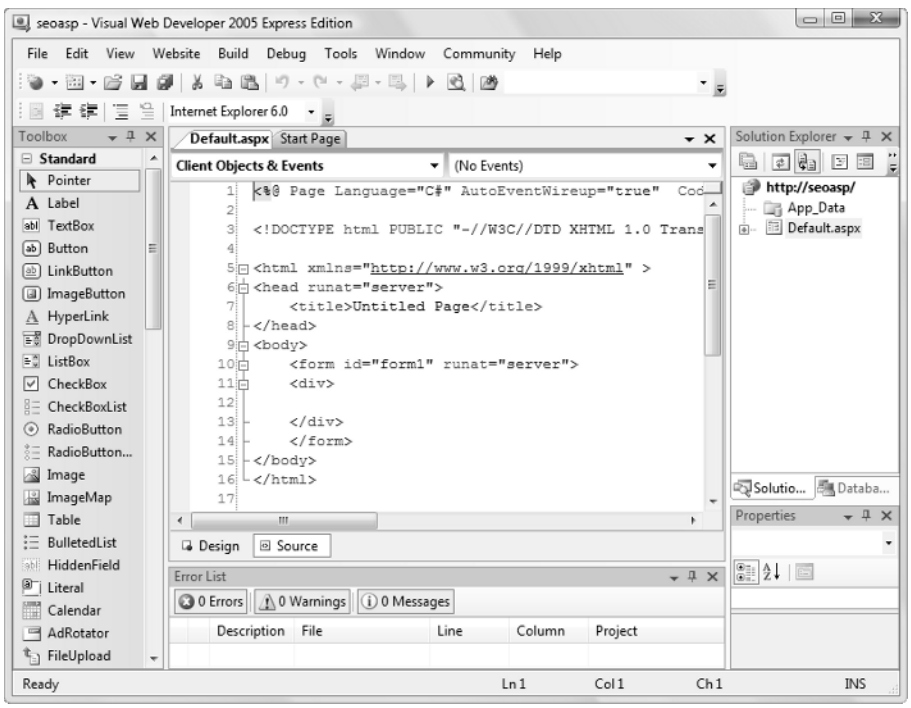

Figure 1-9

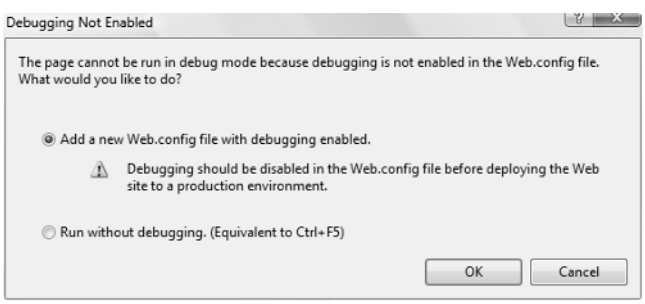

Figure 1-10

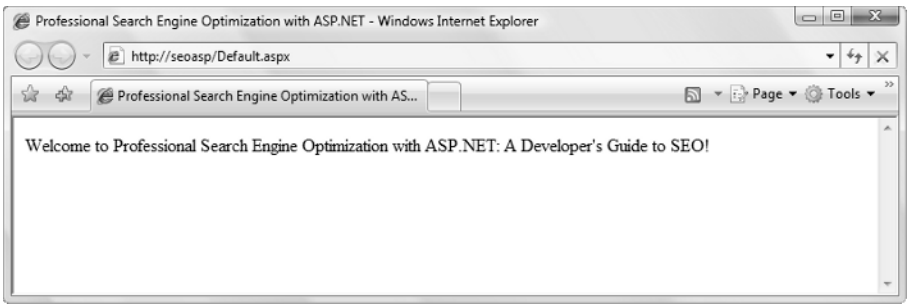

Figure 1-11

Congratulations! If your page loaded successfully, you're ready to move on. If you encountered any errors, verify that you have correctly followed all the steps of the exercises, and that your machine is configured correctly.

Creating the seoasp SQL Server Database

The final task for this chapter is to test your SQL Server 2005 installation, and create a database named `seoasp`.

> *You will be using this database only for the exercises in Chapter 11 and Chapter 14, so you can skip this database installation for now if desired.*

As mentioned earlier, it is possible to use Visual Web Developer to connect to your SQL Server 2005 instance. However, we prefer to use SQL Server Management Studio Express, because it's more powerful and better suited for certain database operations. Follow these steps:

1. Start SQL Server Manager Express from Start ➪ Programs ➪ Microsoft SQL Server 2005 ➪ SQL Server Management Studio Express.

> **If you're using Windows Vista with the User Account Control service activated, you'll need to run the program using administrator privileges.**

2. When executed, it will first ask for your credentials, as shown in Figure 1-12.
3. By default, when installed, SQL Server 2005 will only accept connections through Windows Authentication, meaning that your Windows user account will be used for logging in. Because you're the user that installed SQL Server 2005, you will already have full privileges to the instance. Click Connect to connect to your SQL Server 2005 instance. After connecting to SQL Server, you'll be shown an interface that offers you numerous ways to manage your server and databases — see Figure 1-13.

Figure 1-12

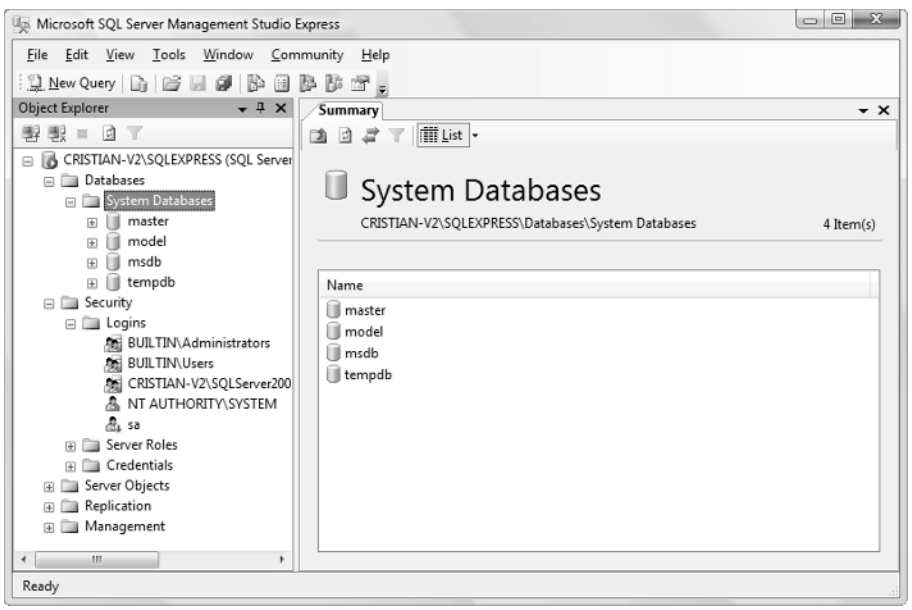

Figure 1-13

4. By default, SQL Server only allows connections using Windows Authentication, which uses the credentials of your logged-in Windows user — this is the method that you've just used to connect to your server using the SQL Server Management Studio. In most real-world scenarios, you'll connect to the database using a SQL Server user ID and password, and we'll use this method in our examples as well. To enable SQL Server authentication, right-click the root node in the Object Explorer window and select Properties. In the dialog that appears, select the Security page, and select the SQL Server and Windows Authentication mode, as shown in Figure 1-14.

5. Click OK to save the change. You'll be notified that you may need to restart SQL Server in order for the change to take effect. You can do so now by right-clicking the server node (the root node) in the Object Explorer pane and selecting Restart.

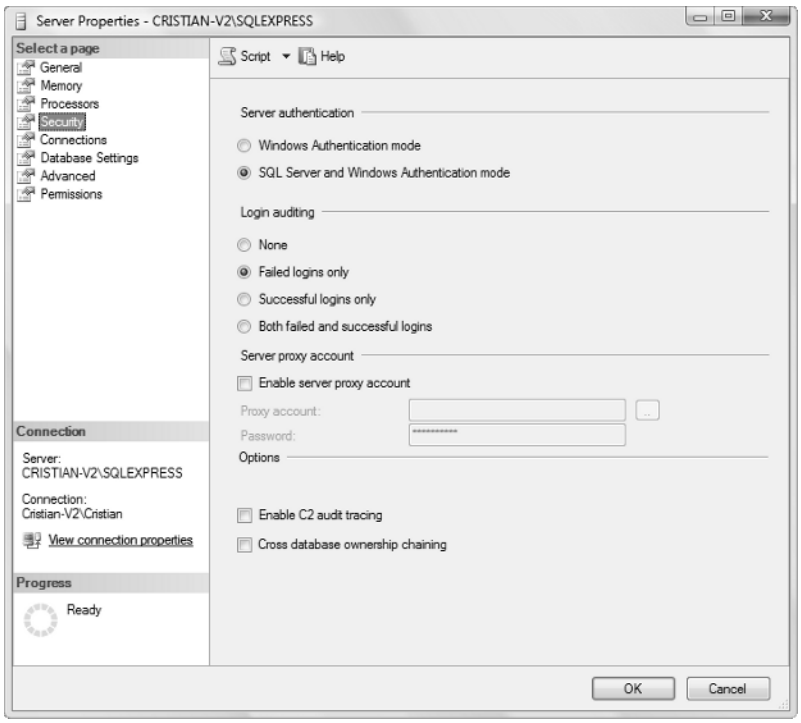

Figure 1-14

6. Let's create the `seoasp` database now. Right-click the Databases node and choose New Database.... Type **seoasp** for the name of the new database, and leave all the options to their defaults, as shown in Figure 1-15.

7. After clicking OK, the new database will be created. The last task is to create a SQL Server user name, which will have access to our newly created database. Using the system administrator account (sa by default) is not indicated. Expand the Security ➪ Logins node in Object Explorer, right-click the Logins node, and select New Login....

8. In the dialog that shows up, select SQL Server authentication and type seouser for the user name and seomaster for the password. Unselect the Enforce password policy, Enforce password expiration, and User must change password at the next login checkboxes. Though these options are very important to be selected in a real-world scenario, we're deactivating them for our exercises in this book. Finally, change the Default database to **seoasp**. The required settings are described in Figure 1-16.

9. We want our new user to have full access to the `seoasp` database. This can be done after creating the user, but we can also do it from the New Login window. Select User Mapping from the Select a page pane, check the seoasp table from the list, and check the db_owner role, as shown in Figure 1-17. This will give your seouser login permissions to do all the necessary tasks on the `seoasp` database.

10. Click OK, and wait for your user to be created.

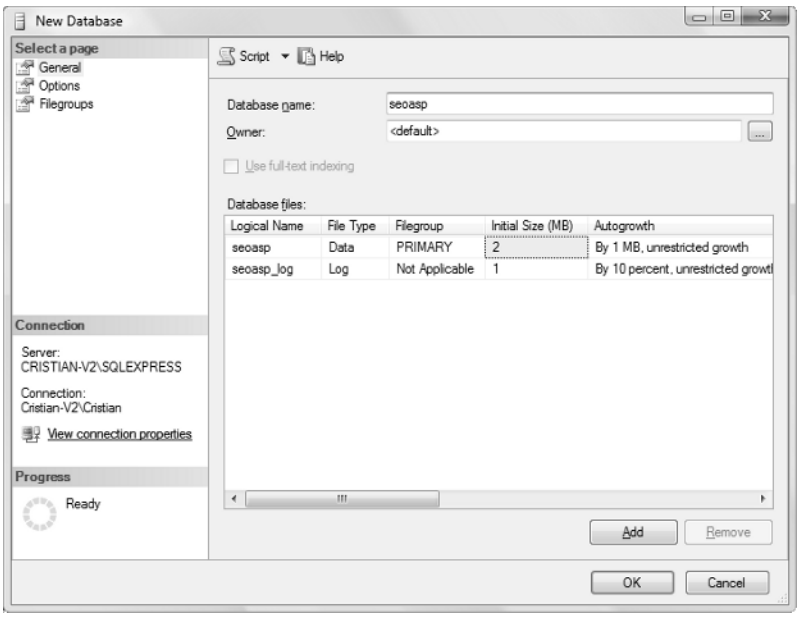

Figure 1-15

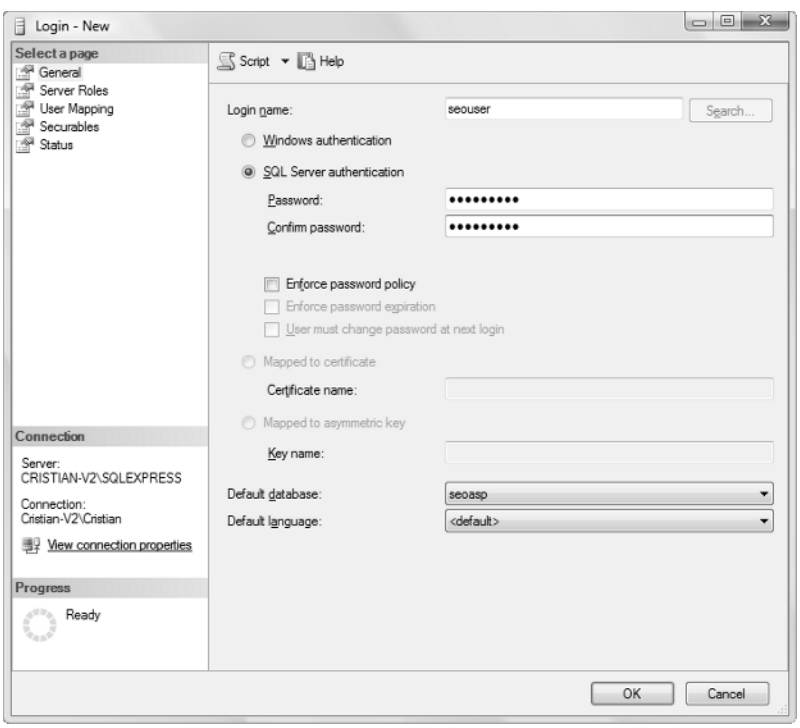

Figure 1-16

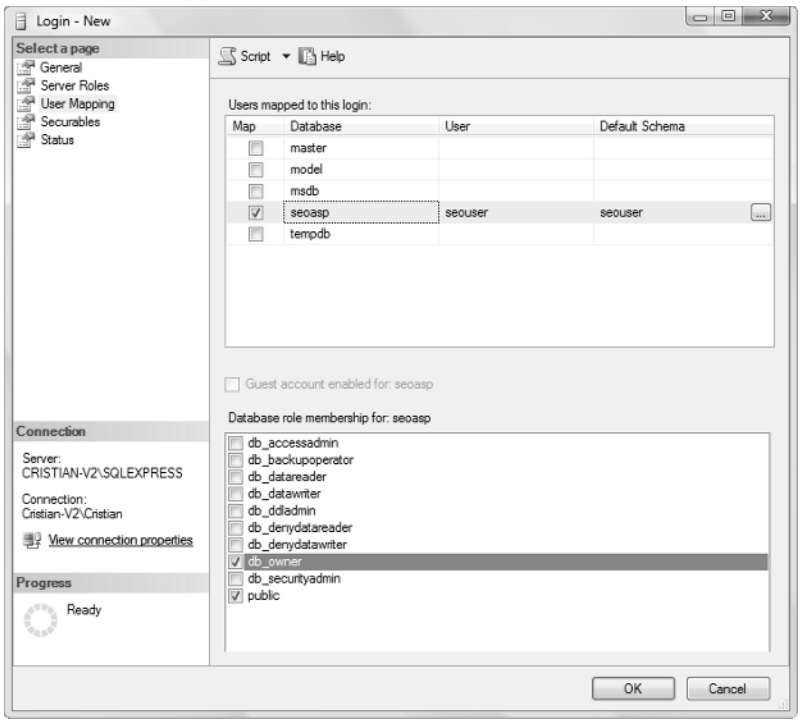

Figure 1-17

That's it for now! To test that your new user was created successfully, you can restart the SQL Server Management Studio, and log in using SQL Server authentication, and the seouser login name with the seomaster password. This time you won't be allowed to create new users, or perform other administrative tasks — instead, you'll have full privileges only to the `seoasp` database, which is exactly what we want. You'll meet SQL Server Management Studio and our database again in Chapters 11 and 14.

Summary

Congratulations; and thank you for having the patience to go through the boring, but necessary setup tasks. You've installed many powerful software products, and even worked with them a little bit — but you'll have a lot more fun in the next chapters, we promise! The next chapter takes you through a quick SEO tutorial, and builds the foundation for the chapters to come.