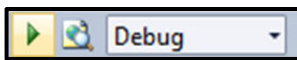


Lesson 1-8: Run a project in debug mode

Now that you've created a project it would be useful to see it in action. Visual Studio has a virtual web server that lets you test your site without needing to upload it to the Internet.

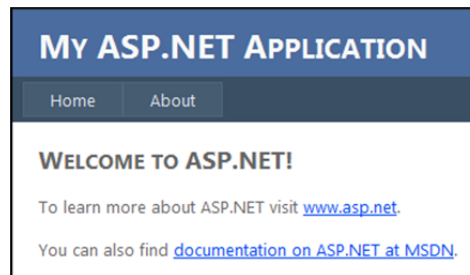
In this lesson you'll learn how to start the virtual web server to see the pages that were automatically created as part of your web application.

- 1 Open *My Project* from your sample files folder (if it isn't already open).
- 2 Start Debugging.
 1. Double-click *Default.aspx* to open it.
 2. Click Debug→Start Debugging.



You can also use the shortcut button on the toolbar, which looks like a 'play' button.

After a short delay, the *Default.aspx* page will be displayed in your web browser.



The path in the address bar of your browser will look something like: <http://localhost:51332/Default.aspx>

Localhost is the web address of your own computer. When you started debugging, Visual Studio started a virtual web server on your computer at this address so that you can test your project.

Note that if you click the *About* button you will see an error. This is because you deleted the *About.aspx* file in: *Lesson 1-7: Manage a project with the Solution Explorer*.

- 3 Close your browser.

Close your browser now. This will bring you back to Visual Studio and stop debugging.
- 4 Change the start page to *mypage.aspx*.
 1. Right-click on *mypage.aspx* in the *Solution Explorer* and then click *Set As Start Page* from the shortcut menu.
 2. Start debugging.

If you can't do this, see the sidebar: *Manually stopping debugging*.

You'll find that this time the path that is opened is: <http://localhost:51332/mypage.aspx>. You didn't put anything on *mypage.aspx*, so the page will be blank.

tip

Manually stopping debugging

If you're using a browser other than Internet Explorer as your default browser, you might find that sometimes the virtual web server doesn't close properly when you close your browser window.

If this happens, you can stop debugging manually by clicking Debug→Stop Debugging.

You can also use the Stop button on the debugging toolbar.



trivia

Web browser market share

In 2004, it was estimated that over 90% of web users were using Microsoft's Internet Explorer browser but by December 2010 Internet Explorer's share of the browser market was below 50%.

So what changed? In 2004, the Firefox browser was released, boasting many new features that Internet Explorer lacked such as tabbed browsing. By December 2010, Firefox was being used by approximately 30% of Internet users.

The browser with the next largest market share as of December 2010 was Google Chrome. This was released in 2008 and quickly gained around 10% of the market.

The other major browsers at the time of writing are Apple's Safari, Opera and a growing number of people using mobile devices to browse the Internet (such as Android Smart phones, iPhones and iPads).

As a professional web developer, you'll probably want to test your web applications in Internet Explorer, Firefox and Chrome along with any other browsers that you think your users may have.

Because you have set *mypage.aspx* as the start page, it will always appear when you start debugging.

5 Change the browser used for debugging.

1. Close your web browser.
2. Right-click on *Default.aspx* in the *Solution Explorer* and then click *Browse With...* from the shortcut menu.

A dialog will appear showing all of your installed browsers.

3. Click *Internet Explorer* and then click *Set as Default*.

This will make Internet Explorer the default browser for debugging this project (if it wasn't already).

4. Click *Browse* to view the page with Internet Explorer.

If this doesn't work, make sure that any instances of Internet Explorer are closed and try again.

5. Close Internet Explorer to return to Visual Studio.

Most web developers need to test that their sites work in several browsers (see sidebar).

6 Cause a build error.

When you start debugging, your project is 'built'. This is another word for compiled (for more on this see sidebar in: *Lesson 1-6: Create an ASP.NET Web Site project*).

When your project is built, all of its code is checked for errors. If there are any major errors, the virtual web server won't be able to start and Visual Studio will try to tell you why.

1. Double-click *Default.aspx.cs* or right-click on *Default.aspx* and click *View Code* from the shortcut menu.
2. Type some nonsense in the space shown.

```
protected void Page_Load(object sender, EventArgs e)
{
    qwegrmdpin
}
```

You'll notice that the text you typed is underlined in red. Visual Studio has already noticed that there's something wrong with this code.

3. Try to start debugging.

A dialog will appear, warning you that there are build errors and asking if you'd like to use the last successful build instead.

4. Click *No*.
5. Delete the nonsense and start debugging again.

mypage.aspx displays properly this time (though, of course, it is empty).

7 Close your web browser.

8 Close Visual Studio.