

What is Razor Syntax?

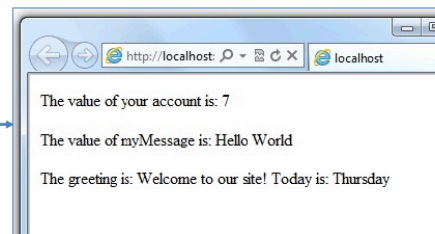
- A markup syntax for embedding server-based code into webpages.
- Consists of Razor markup, C# and HTML.
- Supports the transition of HTML to C# using the @ symbol. When @ is followed by a Razor-reserved keyword, it transitions into razor-specific markup, otherwise it transitions into HTML.
- Razor expressions consist of @ with balanced parenthesis. Razor code blocks start with @ and are enclosed with curly braces {}

Using Razor Syntax

```
<!-- Single statement blocks -->
@{ var total = 7; }
@{ var myMessage = "Hello World"; }

<!-- Inline expressions -->
<p>The value of your account is: @total </p>
<p>The value of myMessage is: @myMessage</p>

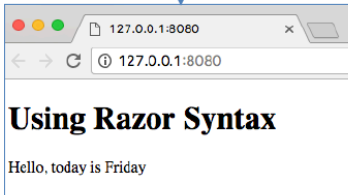
<!-- Multi-statement block -->
@{
    var greeting = "Welcome to our site!";
    var weekDay = DateTime.Now.DayOfWeek;
    var greetingMessage = greeting + " Today is: " + weekDay;
}
<p>The greeting is: @greetingMessage</p>
```



[Taken from <https://docs.microsoft.com/en-us/aspnet/web-pages/overview/getting-started/introducing-razor-syntax-c>]

Examples

```
1 <h1>Using Razor Syntax</h1>
2
3
4
5 @{
6     var message = "Hello, today is ";
7     var todayDate = DateTime.Now.DayOfWeek;
8     var messageAndDate = message + todayDate;
9 }
10
11
12 <p>@messageAndDate</p>
13
```



Note:

You can declare variables with a specific data type, but ASP can usually determine the data type automatically.

Foreach Loop

```
15
16 @{
17     string name = "Kelly";
18     var dateOfBirth = new { Day = 26, Month = 01, Year = 1977 };
19     string[] kids = new string[] { "Louis", "Sophie", "Luc" };
20 }
21
22 <h2>@name</h2>
23 <p>Born in year: @dateOfBirth.Year</p>
24
25 <p>Kids names:</p>
26 <ul>
27
28 @foreach(var k in kids)
29 {
30     <li>@k</li>
31 }
32 </ul>
33
```

Kelly

Born in year: 1977

Kids names:

- Louis
- Sophie
- Luc

Examples (cont.)

```
53
54 @for (var i=0; i<10; i++)
55 {
56     @i<br />
57 }
58
59
60 @int x = 2;
61
62 @if (x % 2 == 0)
63 {
64     <p>The value of x is even</p>
65 }
66 else
67 {
68     <p>The value of x is odd</p>
69 }
70
71
72 @switch (x)
73 {
74     case 1:
75         <p>Value is 1</p>
76         break;
77     case 2:
78         <p>Value is 2</p>
79         break;
80     default:
81         <p>Value is not 1 or 2</p>
82         break;
83 }
84
```

For
Loop

0
1
2
3
4
5
6
7
8
9

If

Switch

The value of x is even
Value is 2

```
92 @try
93 {
94     throw new InvalidOperationException("You did something invalid.");
95 }
96 catch (Exception ex)
97 {
98     <p>The exception message: @ex.Message</p>
99 }
100 finally
101 {
102     <p>The finally statement.</p>
103 }
```

Exception Handling

Microsoft's Top 8 Programming Tips

1. You add code to a page using the @ character.
2. You enclose code blocks in braces.
3. Inside a block you end each code statement with a semi-colon.
4. You use variables to store values.
5. You enclose literal string values in double quotation marks.
6. Code is case sensitive.
7. Much of your coding involves objects.
8. You can write code that makes decisions.

[Taken from <https://docs.microsoft.com/en-us/aspnet/web-pages/overview/getting-started/introducing-razor-syntax-c>]

Understanding What Razor Does

- A Razor page is used to generate a C# file.

```
45
46 @{
47     var output = "Hello World!";
48 }
49
50 <div>Output: @output</div>
51
```

```
public class _Views_Something_cshtml : RazorPage<dynamic>
{
    public override async Task ExecuteAsync()
    {
        var output = "Hello World";

        WriteLiteral("/r/n<div>Output: ");
        Write(output);
        WriteLiteral("</div>");
    }
}
```

Actually creates
a class similar
to this.

The browser shows:

Output: Hello World!

```
39
40
41 <div>Output: Hello World!</div>
42
43
44
```

Underlying HTML code (View Source)

Useful Links:

- <https://docs.microsoft.com/en-us/aspnet/core/mvc/views/razor>
- <https://docs.microsoft.com/en-us/aspnet/webpages/overview/getting-started/introducing-razor-syntax-c>
- <http://www.tutorialsteacher.com/mvc/razor-syntax>
- <https://www.learnrazorpages.com>