



Session 12

*ASP.NET MVC
Razor, Security,
and Other
Features*

Session Overview

- List the differences between Razor and ASPX
- Define Razor in ASP.NET MVC
- Explain the various security options in MVC
- Explain how to create a partial view
- Describe data access layers

Introduction to Razor

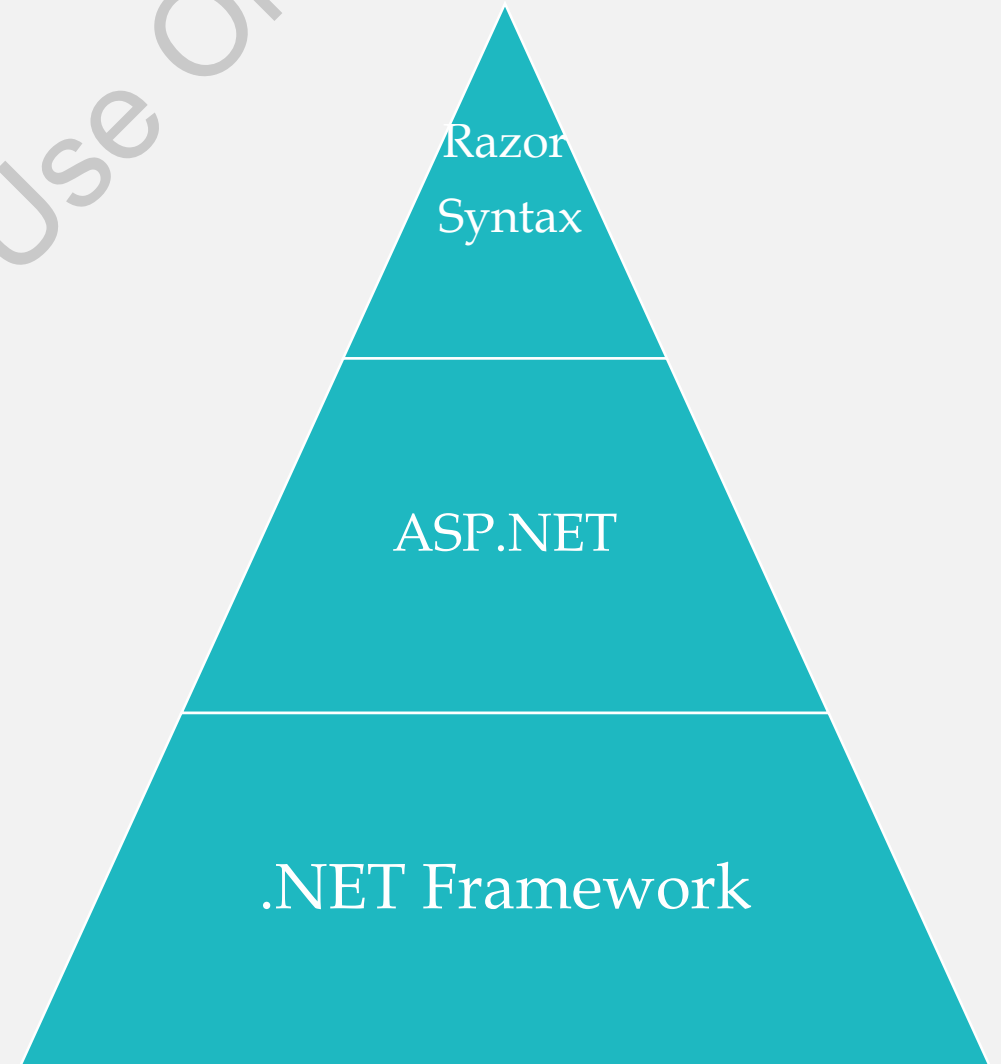
Razor is a popular view-engine or a markup language used at the server-side.

Both HTML and server-side code are employed for writing Razor syntax.

File extensions in the Razor view are .vbhtml for VB and .cshtml for C#.

Razor Syntax is Compact, Easy to Learn and supports IntelliSense.

In Visual Studio 2017 with ASP.NET MVC, Razor view engine is built-in by default.



Rules of Razor Syntax for C#

Use @{ ... } for Razor code blocks.

Start inline expressions (variables and functions) with @.

Use semicolon for ending code statements.

Use var keyword to declare variables.

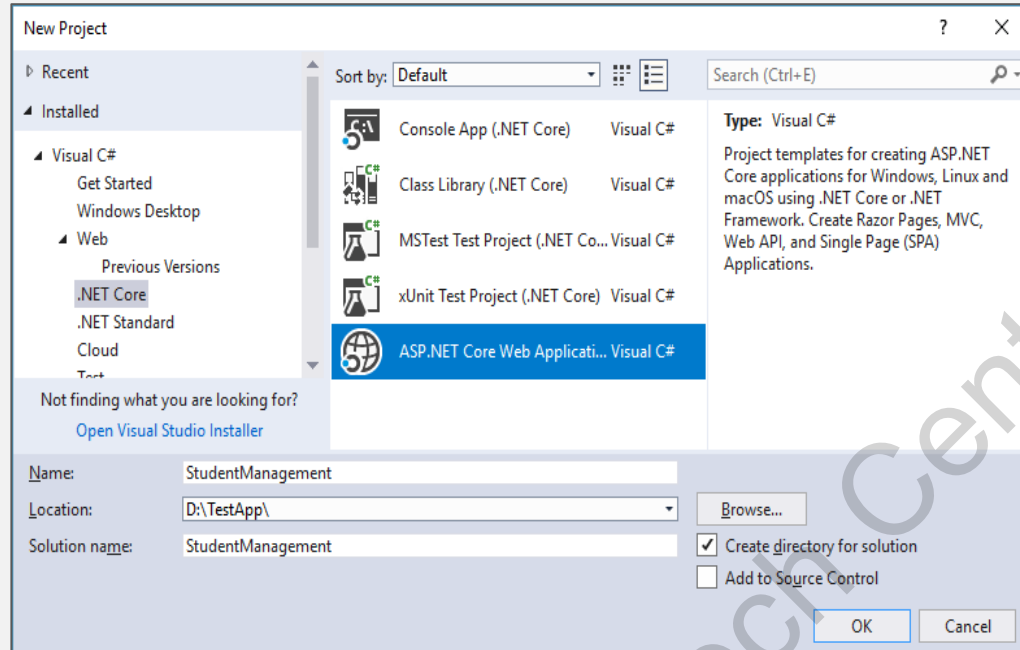
Use quotation marks to enclose strings.

Adhere to case sensitivity of C# code.

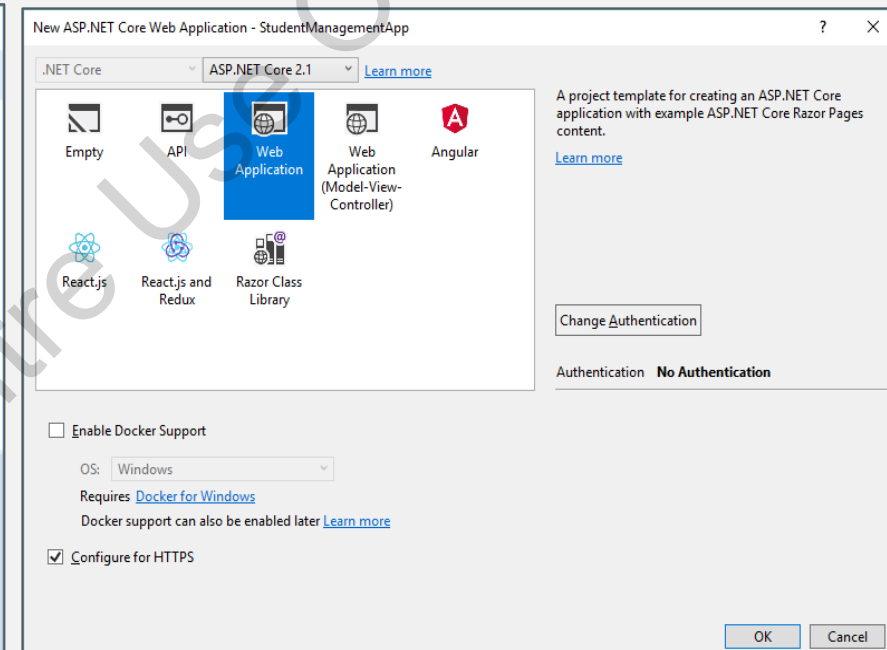
Use .cshtml extension for C# files.



Creating a Razor Application (1-4)



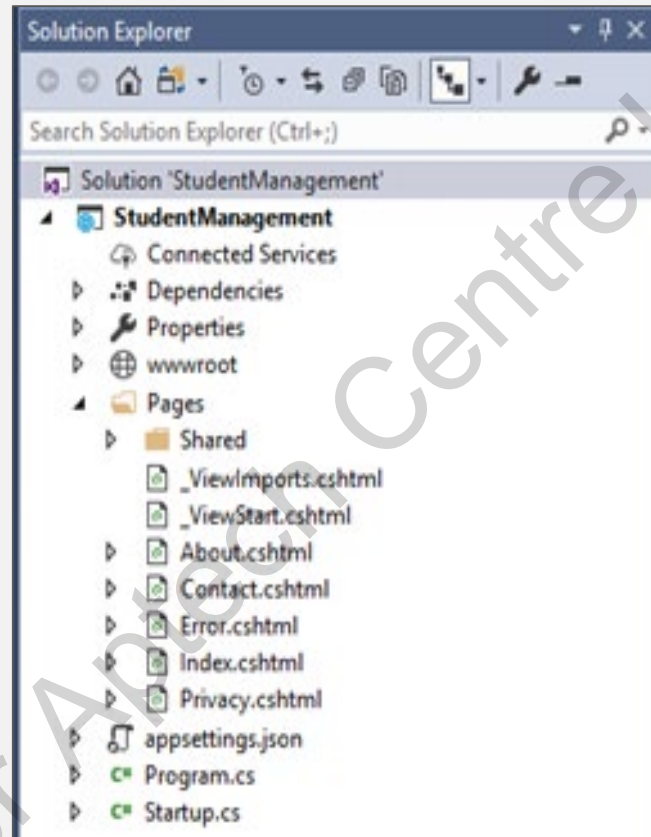
Creating a New ASP.NET Core Application



Select Project Template

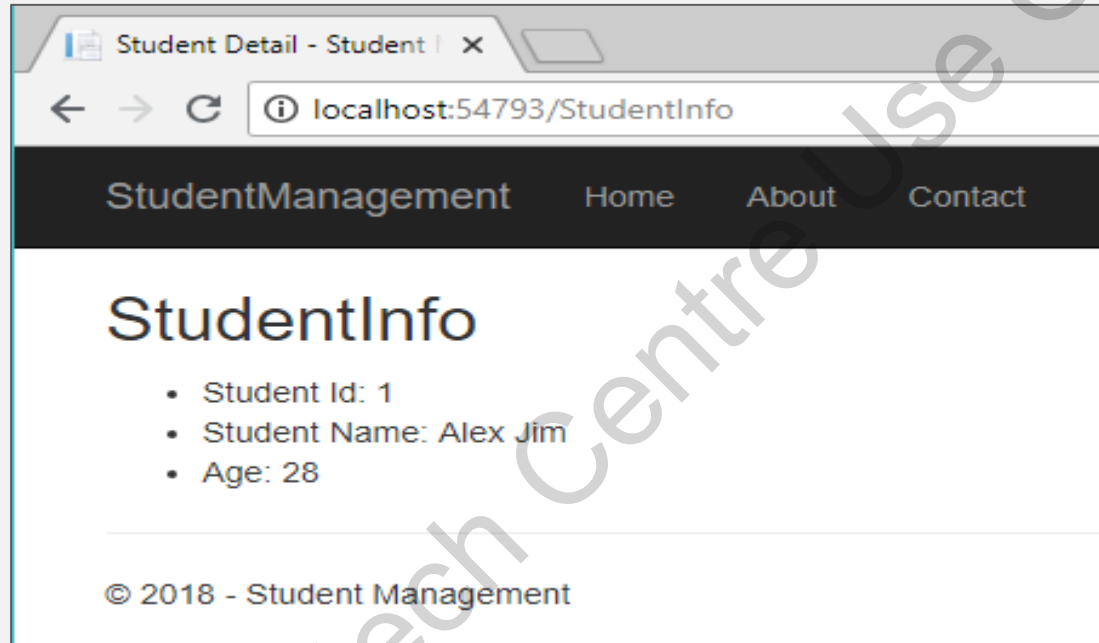
Creating a Razor Application (2-4)

The application is created with default folder structure as shown in Figure.



Directory Structure

Creating a Razor Application (3-4)

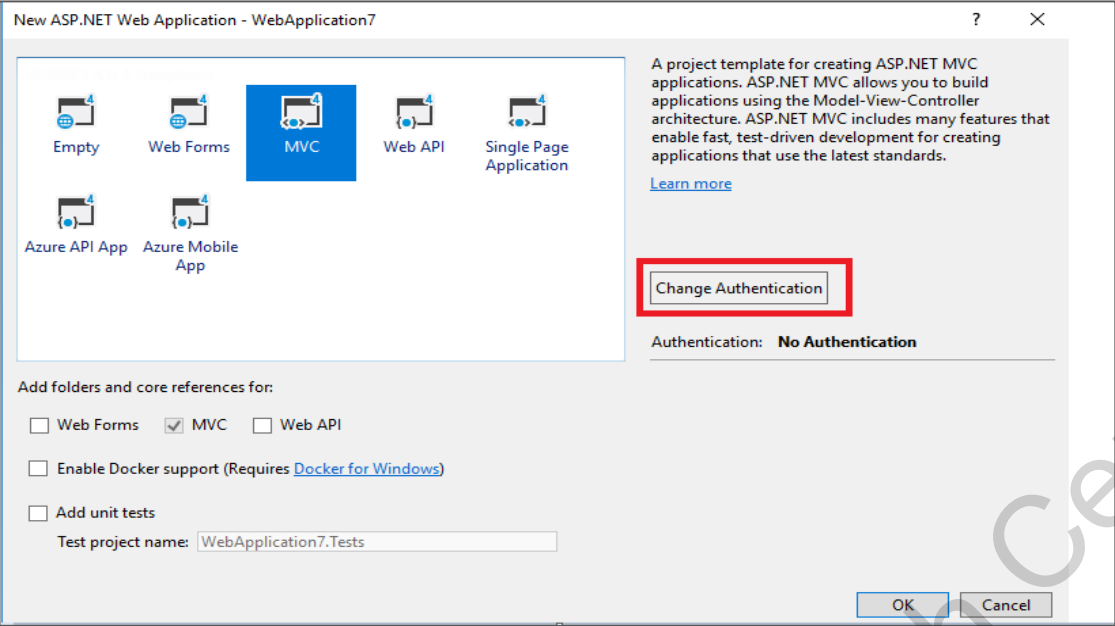


Output of Using model Object

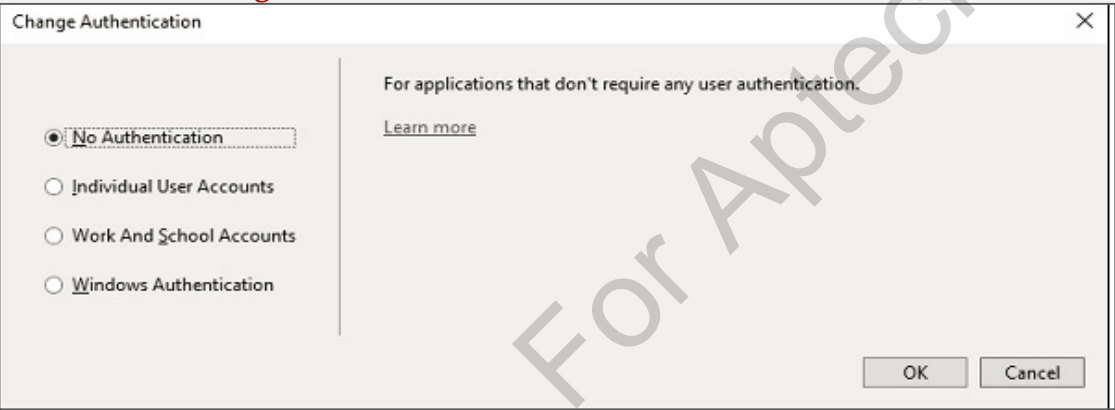
Creating a Razor Application (4-4)

Razor Command	Description
<code>@if</code>	Marks the beginning of the if condition.
<code>@using</code>	Allows using the different packages, namespaces, and classes.
<code>@try, catch, finally</code>	Are used for exception handing.
<code>@inherits</code>	Gives full control over the inherited class.
<i>Razor Commands</i>	

ASP.NET MVC Security



Change Authentication Button



Change Authentication Window

No Authentication	Used to build a Website that does not give importance to who the visitors are.
Individual User Accounts	Use this option for establishing the identity of the user in an Internet site.
Work and School Accounts	Use this option for business applications, which employ active directory federation services.
Windows Authentication	It enables the user to launch a browser to the application within the same firewall after logging in to Windows.

Partial Views in MVC

Partial view is an exclusive view capable of rendering a portion of the view content.

Code duplication can be reduced using this view as it can be reused in multiple views.

The `ViewDataDictionary` object is used to instantiate the partial view.

The data of the parent view does not get affected even if there is any change in the data.

To render any related data in a partial view, which is part of the model, ensure to use the `RenderPartial` method.

Creating Partial Views in MVC

1

- Right-click **View** and select **Shared folder**.

2

- Select **Add → View**. Click the **Create as a partial view** check box. Name the view as **TestView**. Add some markup in the view.

Differences between View and Partial Views

View	Partial View
It includes a layout page.	It does not include a layout page and lightweight.
It renders viewstart page before rendering any view.	It does not look for viewstart.cshtml. Within the _viewstart.cshtml page, no common code for a partial view can be placed.
It includes markup tags, such as HTML, body, head, title, meta, and so on.	It does not contain any markup as it renders within the view.

Differences Between View and Partial View

Data-Layer Project Referenced from MVC and Razor Page Applications

When software components are grouped based on their purpose, they form a layered architecture.

Layered architecture is mainly used for creating an enterprise-reusable domain model.

These distributed design applications are scalable, extensible, maintainable, and highly adaptable.

Developers can implement Data Access Layer as a separate Class Library and reference it in the MVC Project.

Summary

- Razor is a markup language used at the server-side. It uses a markup syntax to embed into Web pages a server-based code, such as Visual Basic and C#.
- Razor supports both C# and VB. It is compact, easy to learn, and IntelliSense.
- HTML content and Razor code are the two types of content that are seen on a Razor Web page.
- Server-side code is written along with HTML code starting with @ symbol.
- Verifying the identity of a user is called authentication.
- Partial view is an exclusive view capable of rendering a portion of the view content.
- Data access layer can be created as a separate class library and referenced into an ASP.NET MVC application.