IT-Academy

Разработка представлений

МОДУЛЬ 6

IT-Academy

План

- View
- Razor Engine
- Layout
- Html Helpers
- Url Helpers
- Templates

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View

Представление отвечает за предоставление пользовательского интерфейса (UI) пользователю. После того, как контроллер выполнил соответствующую логику для запрошенного URL, он делегирует отображение представлению.

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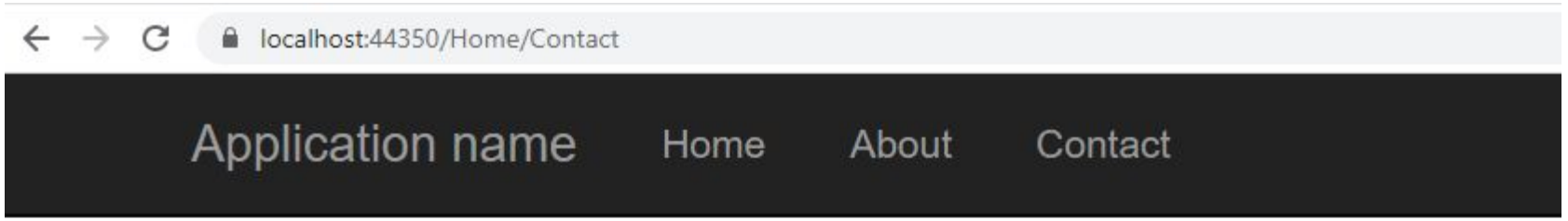
```
@{
    ViewBag.Title = "Contact";
}
<h2>@ViewBag.Title.</h2>
<h3>@ViewBag.Message</h3>

<address>
    One Microsoft Way<br />
    Redmond, WA 98052-6399<br />
    <abbr title="Phone">P:</abbr>
    425.555.0100
</address>

<address>
    <strong>Support:</strong>   <a href="mailto:Support@example.com">Support@example.com</a><br />
    <strong>Marketing:</strong> <a href="mailto:Marketing@example.com">Marketing@example.com</a>
</address>
```


localhost:44350/Home/Contact
Application name
Home
About
Contact
Contact.
Your contact page.
One Microsoft Way
Redmond, WA 98052-6399
P: 425.555.0100
Support: Support@example.com
Marketing: Marketing@example.com
© 2020 - My ASP.NET Application

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```
public ActionResult About()
{
    ViewBag.Message = "Your application description page.";

    return View();
}
```

ViewResult

/Views/Имя_контроллера/Имя_представления.cshtml

/Views/Shared/Имя_представления.cshtml

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ViewResult

- View():
  использует название вызывающего экшена.
- View(string viewName):
  переопределяет имя представления.
- View(object model):
  передает модель.
- View(string viewName, object model):
  переопределяет имя представления и передает в него модель.

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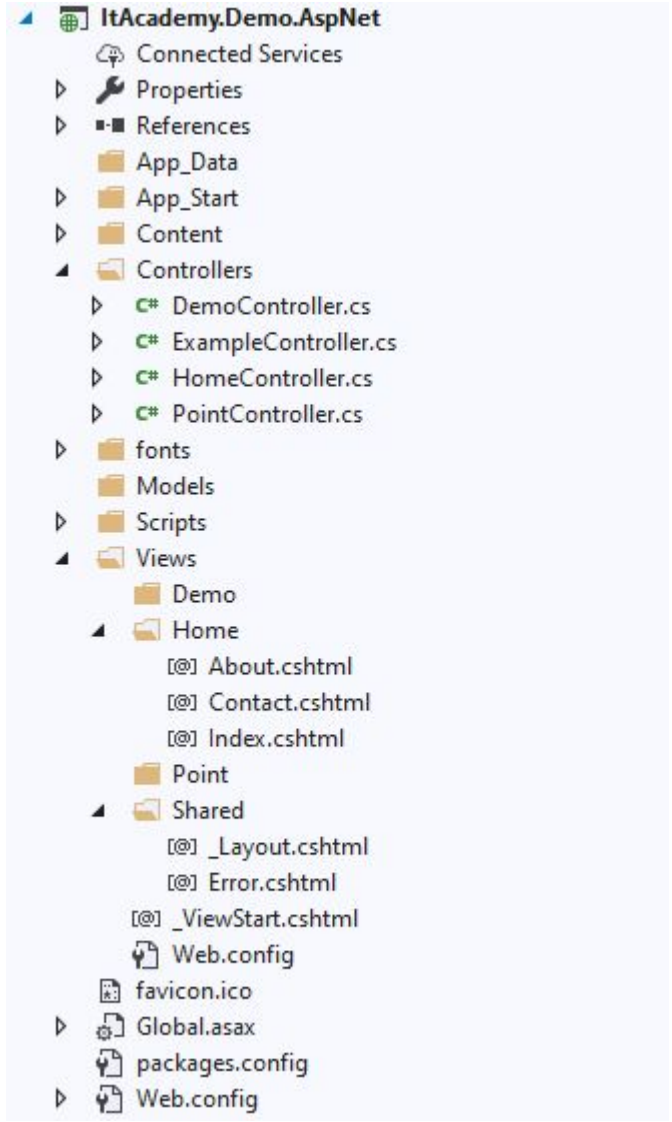
```
public ActionResult About()
{
    ViewBag.Message = "Your application description page.";

    return View(5);
}

public ActionResult Contact()
{
    ViewBag.Message = "Your contact page.";

    return View("Index");
}

public ActionResult Contact()
{
    ViewBag.Message = "Your contact page.";

    return View("Index", 5);
}
```


ItAcademy.Demo.AspNet
Connected Services
Properties
References
App_Data
App_Start
Content
Controllers
DemoController.cs
ExampleController.cs
HomeController.cs
PointController.cs
fonts
Models
Scripts
Views
Demo
Home
About.cshtml
Contact.cshtml
Index.cshtml
Point
Shared
_Layout.cshtml
Error.cshtml
_ViewStart.cshtml
Web.config
favicon.ico
Global.asax
packages.config
Web.config

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View

- Html
- Razor syntax
- Html Helpers

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Razor View Engine

```
<footer>
    <p>Year @DateTime.Now.Year </p>


    @{
        int year = DateTime.Now.Year;
        int nextYear = year + 1;
    }

    <p>Year @year, Next year @nextYear</p>
</footer>
```

Razor View Engine

Вывод текста в блоке кода

```
<footer>
    <p>Year @DateTime.Now.Year </p>


    @{
        int year = DateTime.Now.Year;
        int nextYear = year + 1;
        <text>Year @year, Next year @nextYear</text>
    }
</footer>
```

```
<footer>
    <p>Year @DateTime.Now.Year </p>


    @{
        int year = DateTime.Now.Year;
        int nextYear = year + 1;
        <p>Year @year, Next year @nextYear</p>
    }
</footer>
```

Razor View Engine

Вывод текста в блоке кода

```
<footer>
    <p>Year @DateTime.Now.Year </p>


    @{
        int year = DateTime.Now.Year;
        int nextYear = year + 1;
        @:Year @year, Next year @nextYear
    }
</footer>
```

Razor View Engine

функции

```
@functions{
    public int GetSum(int a, int b)
    {
        return a + b;
    }
}
<div>Sum: @GetSum(1, 2)</div>
```

Razor View Engine

- @ для написания server side code.
- @{* code * } для написания блока server side code.
- @: для отображения текста из блока кода.
- <text></<text> для отображения текста из блока кода.
- @if{ }
- @for
- @model позволяет использовать модель во всем view.

Передача данных в представление

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- View Model
- ViewBag
- ViewData

- TempData

```
TempData.Keep();
```

Передача данных в представление

ViewBag, ViewData

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- ViewData["CurrentTime"] = DateTime.Now;
- ViewBag.CurrentTime = DateTime.Now;

- ViewBag.CurrentTime эквивалент ViewData["CurrentTime"]

Передача данных в представление

ViewBag, ViewData

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- @Html.TextBox("name", ViewBag.Name) will fail

- @Html.TextBox("name", ViewData["Name"])

  или

- @Html.TextBox("name", (string)ViewBag.Name)

Передача данных в представление

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```
public ActionResult About()
{
    TempData["currentDateTime"] = DateTime.Now.ToString();
    ViewBag.Message = "Your application description page.";
    var viewModel = new Point();

    return View(viewModel);
}
```

```
@{
    ViewBag.Title = "About";
}

@model ItAcademy.Demo.AspNet.Controllers.Point

<h2>@ViewBag.Title.</h2>
<h3>@ViewBag.Message</h3>

<h4>@TempData["currentDateTime"]</h4>

<p>@Model.X</p>
<p>@Model.Y</p>

<p>Use this area to provide additional information.</p>
```

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Partial View

- @{Html.RenderPartial("Partial");}

  результат напрямую пишет вывод в выходной поток

- @Html.Partial("Partial")

  возвращает MvcHtmlString

- @{Html.RenderAction(“Menu")}
- @Html.Action("Menu")

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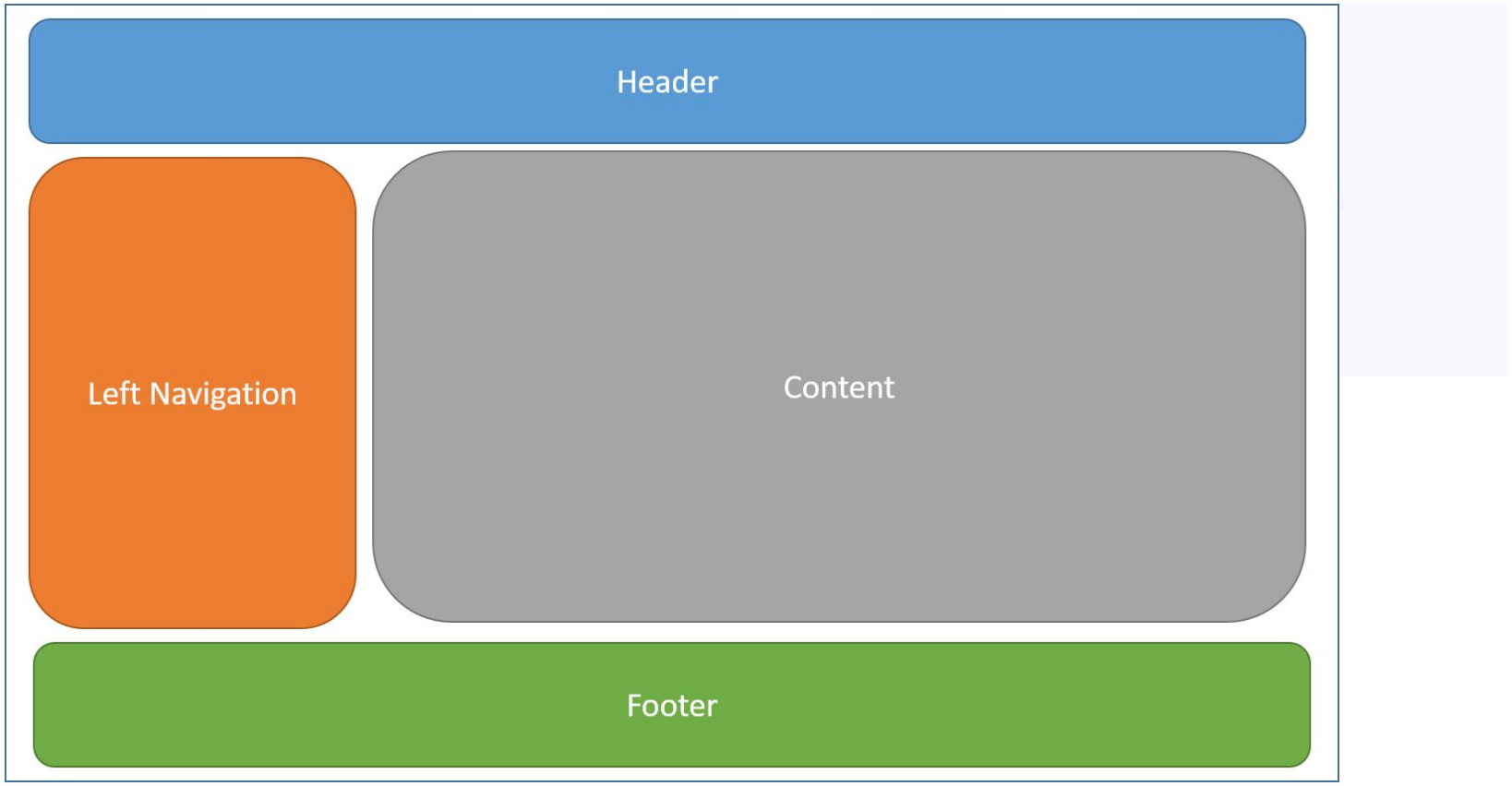
Demo

Layout

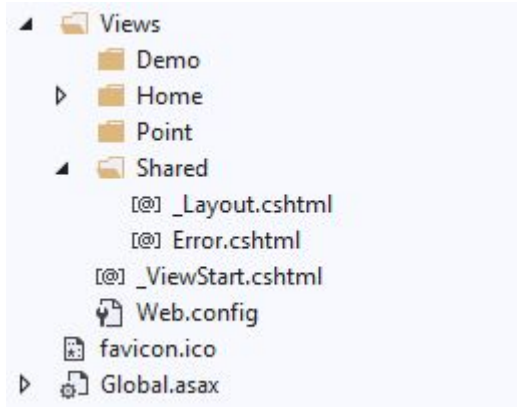
Мастер-страницы



Layout

Мастер-страницы

- _Layout.chtml
  - RenderBody: exactly one
  - RenderSection: zero or more
- _ViewStart.cshtml



```
<!DOCTYPE html>
<html>
<head>
    <meta charset="utf-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>@ViewBag.Title - My ASP.NET Application</title>
    @Styles.Render("~/Content/css")
    @Scripts.Render("~/bundles/modernizr")
    <script type="text/javascript" src="https://google.com/somescript" ></script>
</head>
<body>
    <>...</>
    <div class="container body-content">
        @RenderBody()
        <hr />
        <>...</>
    </div>

    @Scripts.Render("~/bundles/jquery")
    @Scripts.Render("~/bundles/bootstrap")
    @RenderSection("scripts", required: false)
</body>
</html>
```

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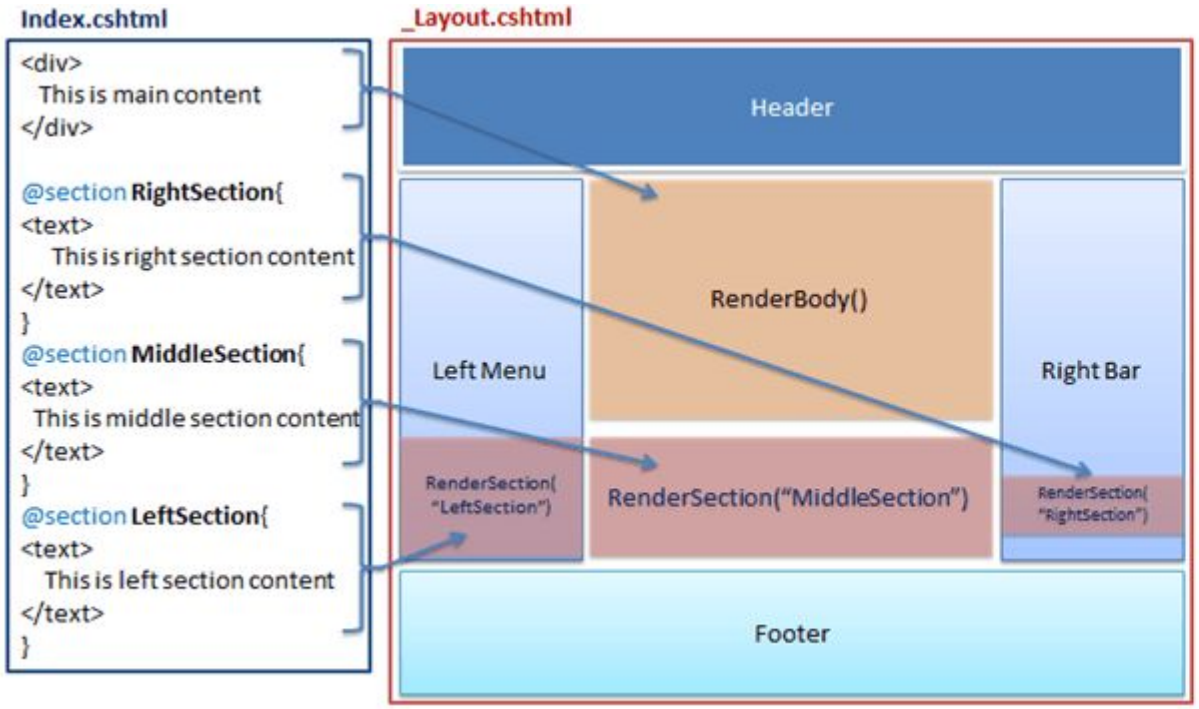
Layout

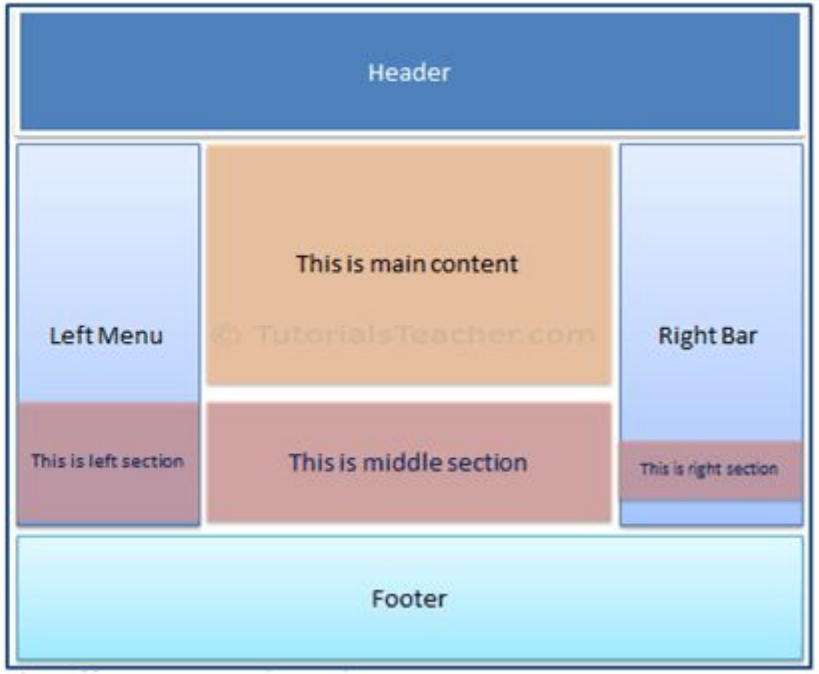
Мастер-страницы

```
@{
    ViewBag.Title = "About";
}

<p>Use this area to provide additional information.</p>

@section scripts{
    <script>
        alert('This is from the scripts section.');
    </script>
}
```

Layout

Мастер-страницы





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_ViewStart.cshtml

- выполнение перед каждой Full View

```
@{
    Layout = "~/Views/Shared/_Layout.cshtml";
}
```

Static Data

(Bundling and Minification)

- @Styles.Render("~/Content/css")
- @Scripts.Render("~/bundles/jquery")

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Demo

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Html Helpers

Html Helper	Strongly Typed Html Helper	Html Control
Html.ActionLink		<a>
Html.RouteLink		<a>

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Html Helpers

Html.ActionLink

```
@Html.ActionLink("Get point.", "Get", "Point")
```

```
<a href="/Point/Get">Go to the home page.</a>
```

Html Helpers

Html.RouteLink

```
@Html.RouteLink("Get point.", "PointRoute")
```

```
<a href="/Point/Get">Go to the home page.</a>
```

```
routes.MapRoute(
    name: "PointRoute",
    url: "point/get",
    defaults: new { controller = "Point", action = "Get", id = UrlParameter.Optional }
);
```

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Url Helpers

- Url.Action
- Url.RouteUrl
- Url.Content

```
@Url.Action("IndexAction")
@Url.RouteUrl("IndexRoute")
@Url.Content("~/Content/css/main.css")
```

```
<a href='@Url.Action("IndexAction")'>Go to the home page</a>
```

Html Helper	Strongly Typed Html Helper	Html Control
Html.TextBox	Html.TextBoxFor	<input type="text">
Html.TextArea	Html.TextAreaFor	<textarea>
Html.CheckBox	Html.CheckBoxFor	<input type="checkbox">
Html.RadioButton	Html.RadioButtonFor	<input type="radio">
Html.DropDownList	Html.DropDownListFor	<select>
Html.Hidden	Html.HiddenFor	<input type="hidden">
Html.Password	Html.PasswordFor	<input type="password">
Html.Label	Html.LabelFor	<label>

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Html Helpers

```
@model Student

@Html.TextBox("StudentName", Model.StudentName, new { @class = "form-control" })

@Html.TextBox("StudentName", "Kate", new { @class = "form-control" })

@Html.TextBoxFor(m => m.StudentName, new { @class = "form-control" })
```

```
<input class="form-control" id="StudentName" name="StudentName" type="text" value="Kate" />
<input class="form-control" id="@nameof(Model.StudentName)"
       name="@nameof(Model.StudentName)" type="text" value="@Model.StudentName" />
```

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Html Helpers

```
@model Student

@Html.DropDownList("StudentGender", new SelectList(Enum.GetValues(typeof(Gender))),
                   "Select Gender", new { @class = "form-control" })

@Html.DropDownListFor(m => m.StudentGender, new SelectList(Enum.GetValues(typeof(Gender))),
                   "Select Gender", new { @class = "form-control" })

@Html.EnumDropDownListFor(m => m.StudentGender,
                   "Select Gender", new { @class = "form-control" })
```

```
<select class="form-control" id="StudentGender" name="StudentGender">
    <option>Select Gender</option>
    <option selected="selected">Male</option>
    <option>Female</option>
</select>
```

Html Helper	Strongly Typed Html Helper	Html Control
Html.Display	Html.DisplayFor	Html text
Html.DisplayText	Html.DisplayTextFor	Html text
Html.Editor	Html.EditorFor	Generates Html controls based on data type of specified model property e.g. textbox for string property, numeric field for int, double or other numeric type.
	Html.DisplayForModel	
	Html.EditorForModel	

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Html.Editor

Property DataType	Html Element
string	<input type="text" >
int	<input type="number" >
decimal, float	<input type="text" >
boolean	<input type="checkbox" >
Enum	<input type="text" >
DateTime	<input type="datetime" >
string	<input type="text" >

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Html.Editor

```
@model Student

<p>StudentId:       @Html.Editor("StudentId")</p>
<p>Student Name:    @Html.Editor("StudentName")</p>
<p>Age:             @Html.Editor("Age")</p>
<p>Password:        @Html.Editor("Password")</p>
<p>isNewlyEnrolled:@Html.Editor("IsActive")</p>
<p>Gender:          @Html.Editor("StudentGender")</p>
<p>DoB:             @Html.Editor("CreatedDate")</p>

<p>StudentId:       @Html.EditorFor(m => m.StudentId)</p>
<p>Student Name:    @Html.EditorFor(m => m.StudentName)</p>
<p>Age:             @Html.EditorFor(m => m.Age)</p>
<p>Password:        @Html.EditorFor(m => m.Password)</p>
<p>isNewlyEnrolled:@Html.EditorFor(m => m.IsActive)</p>
<p>Gender:          @Html.EditorFor(m => m.StudentGender)</p>
<p>DoB:             @Html.EditorFor(m => m.CreatedDate)</p>
```

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Html.Editor

StudentId: 1

Student Name: Kate

Age: 18

Password: 12345

isNewlyEnrolled: ☑

Gender: Female

DoB: 29/07/2015 00:00:00

Html Helper

Html.BeginForm

Strongly Typed Html Helper Html Control

<form>

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```
@using (Html.BeginForm("Create", "Home", FormMethod.Post))
{
    <p>
        <label>Name</label><br />
        <input type="text" name="name" />
    </p>
    <p>
        <label>Age</label><br />
        <input type="number" name="age" />
    </p>
    <p>
        <input type="submit" value="Save" />
    </p>
}
```

```
<form method="post" action="~/Home/Create">
    <p>
        <label>Name</label><br />
        <input type="text" name="name" />
    </p>
    <p>
        <label>Age</label><br />
        <input type="number" name="age" />
    </p>
    <p>
        <input type="submit" value="Save" />
    </p>
    }

</form>
```

Html Helper	Strongly Typed Html Helper
Html.ValidationMessage	Html.ValidationMessageFor
Html.ValidationSummary	

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Custom Html Helper

in class

```
public static class ListHelper
{
    public static MvcHtmlString CreateList(this HtmlHelper html, string[] items)
    {
        TagBuilder ul = new TagBuilder("ul");
        foreach (string item in items)
        {
            TagBuilder li = new TagBuilder("li");
            li.SetInnerText(item);
            ul.InnerHtml += li.ToString();
        }

        return new MvcHtmlString(ul.ToString());
    }
}
```

```
@Html.CreateList(new string[] { "a", "b" })
```

Custom Html Helper

in view

```
@model Point[]


@helper PointList(IEnumerable<Point> points)
{
    <ul>
        @foreach (var p in points)
        {
            <li>@p.X, @p.Y, @p.Z</li>
        }
    </ul>
}
```

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Templates

- Editor
- Display

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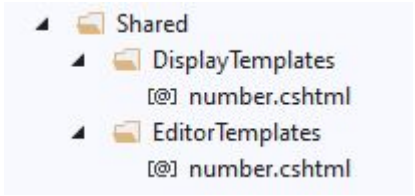
Templates

```
[UIHint("number")]
public int X { get; set; }
```




```
@model int

<p class="number">@Model</p>
```

```
@model int

<input type="number" class="number" name="number" value="@Model"/>
```