មេរៀនទី 10 Bootstrap

আলোচ্য বিষয়

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1. Introduction To Bootstrap

- Powerful front end framework
- Based on Html , CSS , Javascript
- Based on Responsive design
- Open source
- Cross Browser support

Responsive web design is about creating websites which auto matically adjust themselves to look good on all device , from small phone to large desktop.

2. Why Bootstrap

- Fast development
- Cross browser support
- Number of devices support
- Easy to customize components
- Free
- Community support

3. Bootstrap CSS and JS

- Three things are needed
  1. Bootstrap CSS in head
  2. jQuery Javascript at the end of body
  3. Bootstrap Javascript at the end of body

4. Grid System

- Bootstrap’s grid system allow up to 12 columns across the page.
- If you don’t want to use all 12 columns individually, you can group the columns together to create wider column.

Span 1	Span 1	Span 1	Span 1	Span 1	Span 1	Span 1	Span 1	Span 1	Span 1	Span 1	Span 1	Span 1
Span 4				Span 4				Span 4				
Span 4				Span 8								
Span 6								Span 6				
Span 12												

5. Grid Options

	Extra small devices Phones (<768px)	Small devices Tablets (>=768px)	Medium devices Desktops (>=992px)	Large devices Desktops (≥1200px)
Grid behavior	Horizontal at all times	Collapsed to start, horizontal above breakpoints		
Container width	None (auto)	750px	970px	1170px
Class prefix	.col-xs-	.col-sm-	.col-md-	.col-lg-
# of columns	12			
Column width	Auto	~62px	~81px	~97px
Gutter Width	30px (15px on each side of a column)			
Nestable	Yes			
Offsets	Yes			
Column ordering	Yes			

6. Grid Class

- xs (for phones)
- sm (for tablets)
- md (for desktops)
- lg (for larger desktops)

7. Grid System Rules

- Row must be placed within a .container (fixed-width) or .container-fluid (full-width) for proper alignment and padding.
- Use rows to create horizontal group of columns.
- Content should be placed within columns, and only columns may be immediate children of rows.
- Predefined class like .row and .col-sm-4 are available for quickly making quick layout.

8. Practice

ayout.cshtml | Index.cshtml | HomeController.cs | testBootstrap: Overview

```
1  <!DOCTYPE html>
2  <html>
3  <head>
4      <meta charset="utf-8" />
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>@ViewBag.Title - My ASP.NET Application</title>
7      <link href="~/Content/Site.css" rel="stylesheet" type="text/css" />
8      <link href="~/Content/bootstrap.min.css" rel="stylesheet" type="text/css" />
9      <script src="~/Scripts/modernizr-2.8.3.js"></script>
10 </head>
11 <body>
12     <div class="navbar navbar-inverse navbar-fixed-top">
13         <div class="container">
14             <div class="navbar-header">
15                 <button type="button" class="navbar-toggle" data-toggle="collapse" data-target=".navbar-collapse">
16                     <span class="icon-bar"></span>
17                     <span class="icon-bar"></span>
18                     <span class="icon-bar"></span>
19                 </button>
20                 @Html.ActionLink("Application name", "Index", "Home", new { area = "" }, new { @class = "navbar-brand" })
21             </div>
22             <div class="navbar-collapse collapse">
23                 <ul class="nav navbar-nav">
24                 </ul>
25             </div>
26         </div>
27     </div>
28
29     <div class="container body-content">
30         @RenderBody()
31         <hr />
32         <footer>
33             <p>&copy; @DateTime.Now.Year - My ASP.NET Application</p>
34         </footer>
35     </div>
36
37     <script src="~/Scripts/jquery-3.4.1.min.js"></script>
38     <script src="~/Scripts/bootstrap.min.js"></script>
39 </body>
40 </html>
```

Solution Explorer

Search Solution Explorer (Ctrl+;)

- Solution 'testBootstrap' (1 of 1 project)
  - testBootstrap
    - Properties
    - References
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    - App_Start
    - Content
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      - Shared
        - _Layout.cshtml
      - _ViewStart.cshtml
      - web.config
    - Global.asax
    - packages.config
    - Web.config

- Create Project : BootstrapDemo
- Create Controller : HomeController
- Create View: Index.html

8. Practice (Cont..)

_Layout.cshtml | Index.cshtml | HomeController.cs | testBootstrap: Overview | jquery-3.6.0.min.js

```
<!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>
    <link href="~/Content/Site.css" rel="stylesheet" type="text/css" />
    <link href="~/Content/bootstrap.min.css" rel="stylesheet" type="text/css" />
    <script src="~/Scripts/modernizr-2.8.3.js"></script>
</head>
<body>
    <div class="navbar navbar-inverse navbar-fixed-top">
        <div class="container">
            <div class="navbar-header">
                <button type="button" class="navbar-toggle" data-toggle="collapse" data-target=".navbar-collapse">
                    <span class="icon-bar"></span>
                    <span class="icon-bar"></span>
                    <span class="icon-bar"></span>
                </button>
                @Html.ActionLink("Application name", "Index", "Home", new { area = "" }, new { @class = "navbar-brand" })
            </div>
            <div class="navbar-collapse collapse">
                <ul class="nav navbar-nav">
                </ul>
            </div>
        </div>
    </div>

    <div class="container body-content">
        @RenderBody()
        <hr />
        <footer>
            <p>&copy; @DateTime.Now.Year - My ASP.NET Application</p>
        </footer>
    </div>

    <script src="~/Scripts/jquery-3.6.0.min.js"></script>
    <script src="~/Scripts/bootstrap.min.js"></script>
</body>
</html>
```

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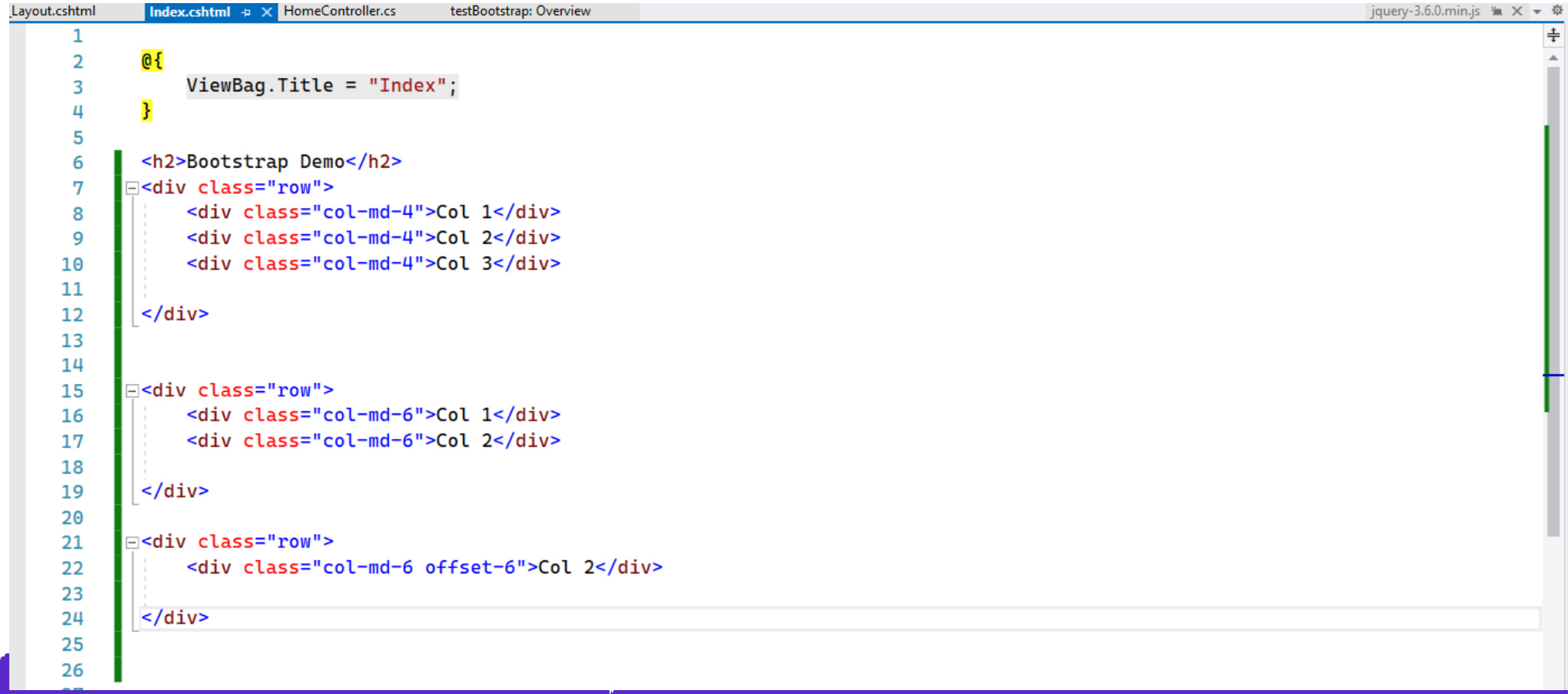
- Add bootstrap.min.css to Content folder
- Add bootstrap.min.js and jquery-3.6.0.min.js to Scripts folder
- Import those file in _Layout.cshtml
- Or You can import cdn link

8. Practice (Cont..)

Index.cshtml



9. Bootstrap Form

- Bootstrap provides three type of form layouts
  1. Vertical form (default)
  2. Horizontal form
  3. Inline form
- Standard rules for all three form layouts:
  - Use grid system to make form
  - Add class .form-control to all textual <input> , <textarea>, and <select> elements

10. Bootstrap Input

- Bootstrap supports the following form control:
  1. Input-text --Add class .form-control
  2. textarea --Add class .form-control
  3. Checkbox –wrap checkboxes in div and add class .checkbox to div
  4. radio –wrap radio button in div and add class .radio to div
  5. select --Add class .form-control

11. Bootstrap Buttons

- Bootstrap provides 7 style of buttons
  1. .btn-default
  2. .btn-primary
  3. .btn-success
  4. .btn-info
  5. .btn-warning
  6. .btn-danger
  7. .btn-link

- Class that define different size are:
  1. .btn-lg
  2. .btn-md
  3. .btn-sm
  4. .btn-xs

12. Practice Form

- Vertical Form

InlineForm.cshtml | VerticalForm.cshtml | _Layout.cshtml | Index.cshtml | HomeController.cs

```
1
2   @{
3       ViewBag.Title = "VerticalForm";
4   }
5
6   <h2>Vertical Form</h2>
7   <hr />
8   <form>
9       <div>
10          <label>Enter Username</label>
11          <input type="text" class="form-control"/>
12      </div>
13      <div>
14          <label>Enter Password</label>
15          <input type="password" class="form-control"/>
16      </div>
17      <div>
18          <div class="checkbox">
19              <label><input type="checkbox" value="r"/>Remember Me</label>
20          </div>
21      </div>
22      <input type="submit" class="btn btn-primary" value="Login" />
23  </form>
24
25
```

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12. Practice Form(Cont..)

- Inline Form

InlineForm.cshtml | VerticalForm.cshtml | _Layout.cshtml | Index.cshtml | HomeController.cs

```
1
2   @{
3       ViewBag.Title = "InlineForm";
4   }
5
6   <h2>Inline Form</h2>
7   <form class="row g-3">
8       <div class="col-md-3">
9           <label>Enter Username</label>
10          <input type="text" class="form-control" />
11      </div>
12      <div class="col-md-3">
13          <label>Enter Password</label>
14          <input type="password" class="form-control" />
15      </div>
16      <div class="col-md-3">
17          <div class="checkbox">
18              <label><input type="checkbox" value="r" />Remember Me</label>
19          </div>
20      </div>
21      <div class="col-md-3">
22          <input type="submit" class="btn btn-primary" value="Login" />
23      </div>
24  </form>
25
26
```

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12. Practice Form(Cont..)

❖ Horizontal Form

HorizontalForm.cshtml | InlineForm.cshtml | VerticalForm.cshtml | _Layout.cshtml | Index.cshtml | HomeController.cs

```cshtml
@{
    ViewBag.Title = "HorizontalForm";
}
<h2>Horizontal Form</h2>
<form>
    <div class="row mb-2">
        <label class="col-md-3" for="name">Enter Name</label>
        <div class="col-md-9">
            <input type="text" class="form-control" id="name" />
        </div>
    </div>
    <div class="row mb-2">
        <label class="col-md-3">Address</label>
        <div class="col-md-9">
            <textarea class="form-control"></textarea>
        </div>
    </div>
    <div class="row mb-2">
        <label class="col-md-3">Gender</label>
        <div class="col-md-9">
            <div class="form-check form-check-inline">
                <input type="radio" id="male" name="gender" value="m" />
                <label for="male">Male</label>
            </div>
            <div class="form-check form-check-inline">
                <input type="radio" id="female" name="gender" value="f" />
                <label for="female">Female</label>
            </div>

        </div>
    </div>
    <div class="row mb-2">
        <label class="col-md-3">Language Known</label>
        <div class="col-md-9">
            <div class="form-check form-check-inline">
                <input type="checkbox" id="hindi" name="language" value="h" />
                <label for="hindi">Hindi</label>
            </div>
            <div class="form-check form-check-inline">
                <input type="checkbox" id="english" name="language" value="f" />
                <label for="english">English</label>

            </div>
            <div class="form-check form-check-inline">
                <input type="checkbox" id="khmer" name="language" value="k" />
                <label for="khmer">Khmer</label>
            </div>
        </div>
    </div>
    <div class="row mb-2">
        <label class="col-md-3">Select City</label>
        <div class="col-md-9">
            <select class="form-control">
                <option value="btb">Battambang</option>
                <option value="pp">Phnom Penh</option>
                <option value="sr">Siem Reap</option>
            </select>
        </div>
    </div>
    <div>
        <input type="submit" class="btn btn-primary btn-lg offset-3" value="Login" />
    </div>
</form>
```

13. Practice Table

Table.cshtml | HorizontalForm.cshtml | InlineForm.cshtml | VerticalForm.cshtml | _Layout.cshtml

```
1
2   @{
3       ViewBag.Title = "Table";
4   }
5
6   <h2>Table</h2>
7
8   <table class="table table-striped table-hover">
9       <thead>
10          <tr>
11              <th>No.</th>
12          <th>Course Name</th>
13          <th>Duration</th>
14          </tr>
15      </thead>
16      <tbody>
17          <tr>
18              <td>1</td>
19              <td>Asp.net MVC 5</td>
20              <td>45h</td>
21          </tr>
22          <tr>
23              <td>2</td>
24              <td>Math Computing</td>
25              <td>45h</td>
26          </tr>
27          <tr>
28              <td>3</td>
29              <td>PHP&MySql</td>
30              <td>45h</td>
31          </tr>
32      </tbody>
33  </table>
```

Summary

- ✓ Bootstrap
- ✓ Grid System
- ✓ Responsive Design

THANK YOU