



Chapter 10 (2.2)

Understanding Programming in Bootstrap



Objectives

At the end of this session, you will be able to:

- Use different Bootstrap components
- Write programs in Bootstrap
- Apply CSS and JavaScript to Bootstrap components



Components in Bootstrap

- Includes a collection of Less stylesheets use the components
- A set of configuration variables that control features of components
- Developers implement the components as CSS classes
- A variety of JavaScript components as jQuery plugins
- Bootstrap 3 supports web browsers – Firefox, Opera, Chrome, Safari, and IE
- Each component comprises:

HTML
Structure

CSS Code

JavaScript



Layout Components

Glyphicons

Navbars

Input Groups

Pagination

Page Header

Badges

Panels

List Groups

Progress bars



Glyphicons (1-2)

- More than 250 glyphs or fonts
- ‘Glyphicons Halflings’ files in ‘font’ folder
- Need base and individual icon class
- Only elements neither text nor child element
- Syntax:

```
<span class="glyphicon glyphicon-  
<name>"></span>
```

- Recommended with nested `` tag

Glyphicons (2-2)

- Code snippet:

```
12
13  <div class="container">
14    <h2>Some Glyphicons</h2>
15    <p>Envelope icon: <span class="glyphicon glyphicon-envelope"></span></p>
16    <p>Hyperlinked Envelope:<br/>
17      <a href="#"><span class="glyphicon glyphicon-envelope"></span></a>
18    </p>
19    <p>Search: <span class="glyphicon glyphicon-search"></span></p>
20  </div>
```

- Output:



Some Glyphicons

Envelope icon: ✉

Hyperlinked Envelope: ✉

Search: 🔎



Navbars

- Also called as Navigation bars
- A navigation header appears on the top of a Web page
- Collapsible or extensible according to the browser screen size
- Contains – links, drop-downs, buttons, icons, or combination
- Left or right alignment of these elements is possible
- Sets horizontally when viewport width increases
- Syntax:

```
<nav class="navbar navbar-default">
```



Input Groups (1-3)

- Referred as extended form controls
- Easy to append or prefix icons, buttons, or text.
- **.input-group** container class adds help text, button, or an icon.
- **.input-group-addon** class affixes text, icon, or button
- **Form-group** class adds space between controls

Input Groups (2-3)

- Bootstrap supports following form controls:

Input

Textarea

Radio

Select

Checkbox

- Also supports input types:

Text

Number

Password

Email

Date Time

URL

Search

Color

Input Groups (3-3)

- Syntax for creating text and password input controls:

```
<div class="form-group">
  <label for="user">Name:</label>
  <input type="text" class="form-control"
    id="user">
</div>
<div class="form-group">
  <label for="pwd">Password:</label>
  <input type="password" class="form-control"
    id="pwd">
</div>
```

Pagination

- Useful to Websites with many pages
- .pagination class in element should be used to add pagination component
- Code snippet:

```
13  <div class="container">
14    <h2>Pagination</h2>
15    <p>The .pagination class provides pagination links:</p>
16    <ul class="pagination">
17      <li><a href="#">1</a></li>
18      <li><a href="#">2</a></li>
19      <li><a href="#">3</a></li>
20      <li><a href="#">4</a></li>
21      <li><a href="#">5</a></li>
22      <li><a href="#">6</a></li>
23    </ul>
24  </div>
```

- Output:



Page Headers

- It is a section splitter
- Add proper spacing to the Webpage headings
- Similar to <H1> tag
- Use .page-header class with <div> element
- Code:

```
13  <div class="page-header">
14    <h1>Example page header <small>Subtext for header</small></h1>
15  </div>
```

- Output of page header



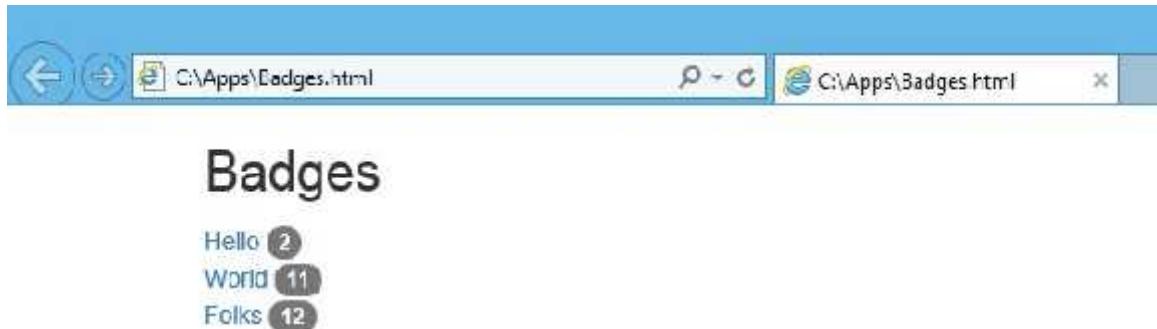
Example Page Header Subtext for header

Badges

- Special labels representing new items
- Show numerical values indicating number of items
- Use .badge class with tag
- Code:

```
13  <div class="container">
14    <h2>Badges</h2>
15    <a href="#">Hello <span class="badge">2</span></a><br>
16    <a href="#">World <span class="badge">11</span></a><br>
17    <a href="#">Folks <span class="badge">12</span></a>
18  </div>
```

- Output of a badge

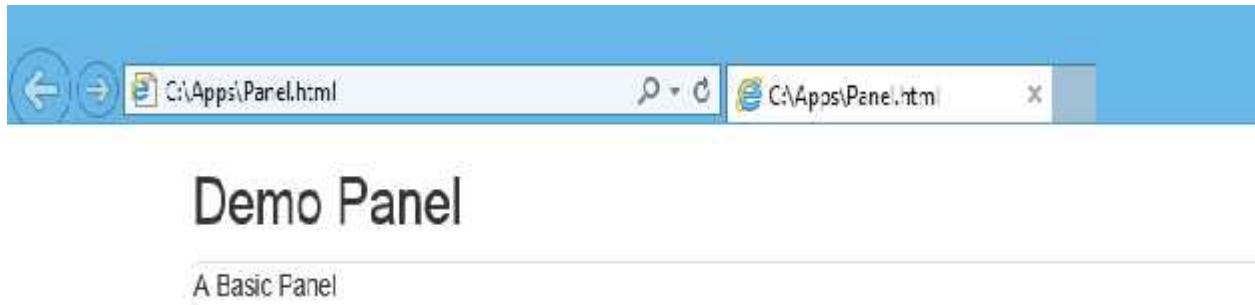


Panels

- A container that holds other components
- Use .panel base class with standard padding and border for creating panel
- Use .panel-body class to place the content
- Code:

```
13 <div class="container">
14   <h2>Demo Panel</h2>
15   <div class="panel panel-default">
16     <div class="panel-body">A Basic Panel</div>
17   </div>
18 </div>
```

- Output of the panels

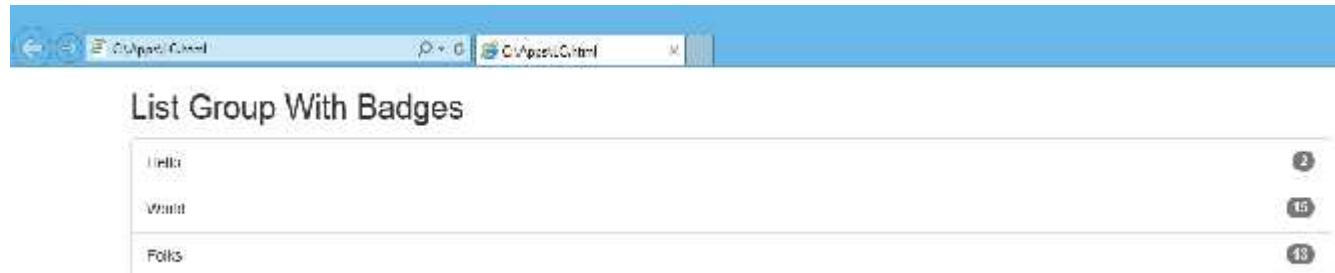


List Groups

- Unordered list of items
- Renders complex and tailored content
- Use .list-group class with tag and .list-group-item class with tag
- Code:

```
13 <div class="container">
14   <h2>List Group With Badges</h2>
15   <ul class="list-group">
16     <li class="list-group-item">Hello <span class="badge">2</span></li>
17     <li class="list-group-item">World <span class="badge">15</span></li>
18     <li class="list-group-item">Folks <span class="badge">13</span></li>
19   </ul>
20 </div>
```

- Output of list groups:



Progress Bars (1-2)

- Display the status of an action or process in progress
- Indicate a feedback or convey an action
- Types of progress bars:

Default

Stripped

Animated

Stacked

- Examples of progress



Default Progress Bar



Striped Progress Bar



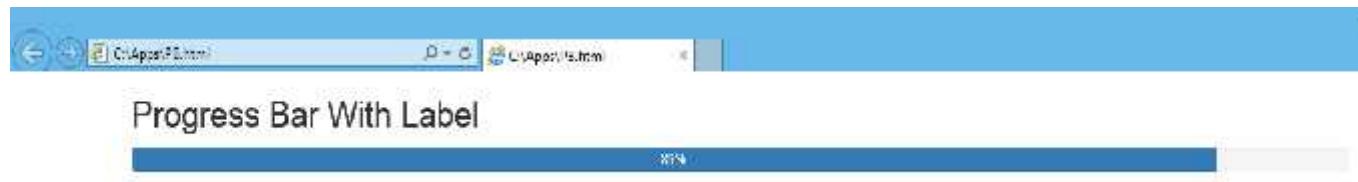
Stacked Progress Bar

Progress Bars (2-2)

- Use .progress class in <div> tag for generating progress bars.
- Code:

```
13  <div class="container">
14    <h2>Progress Bar With Label</h2>
15    <div class="progress">
16      <div class="progress-bar" role="progressbar"
17        aria-valuemax="100" style="width:89%">
18        89%
19      </div>
20    </div>
21  </div>
```

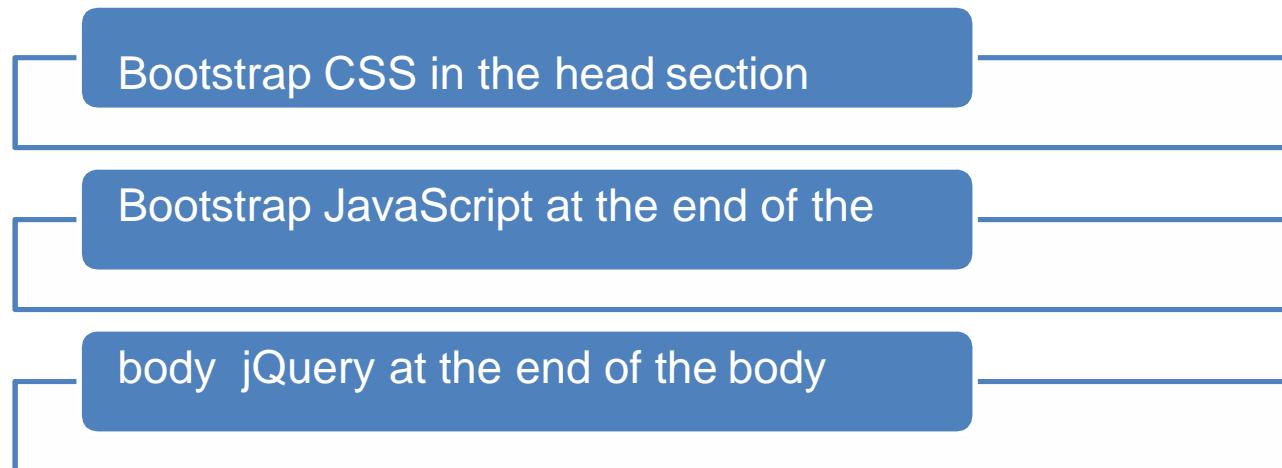
- Output of a default progress bar:





Programming in Bootstrap (1-2)

- CSS is the core of bootstrap and exists in head section
- JavaScript exists at the end of body section
- Bootstrap consists three main parts:



Programming in Bootstrap (2-2)

- Collapsible is used to show or hide content
- Use *collapse* class in <div> tag to add collapsible
- Code for collapsible:

```
<button type="button" class="btn btn-info" data-toggle="collapse" id="mybtn" data-target="#demo">Collapsible</button>
```

- Output of collapsible:



Collapsible Example

Collapsible

Collapsibles are useful when you want to hide and show large amount of content.

- Collapsible hidden by default



Demo on Bootstrap Functionality

- Bootstrap offers three layouts for forms:

Vertical

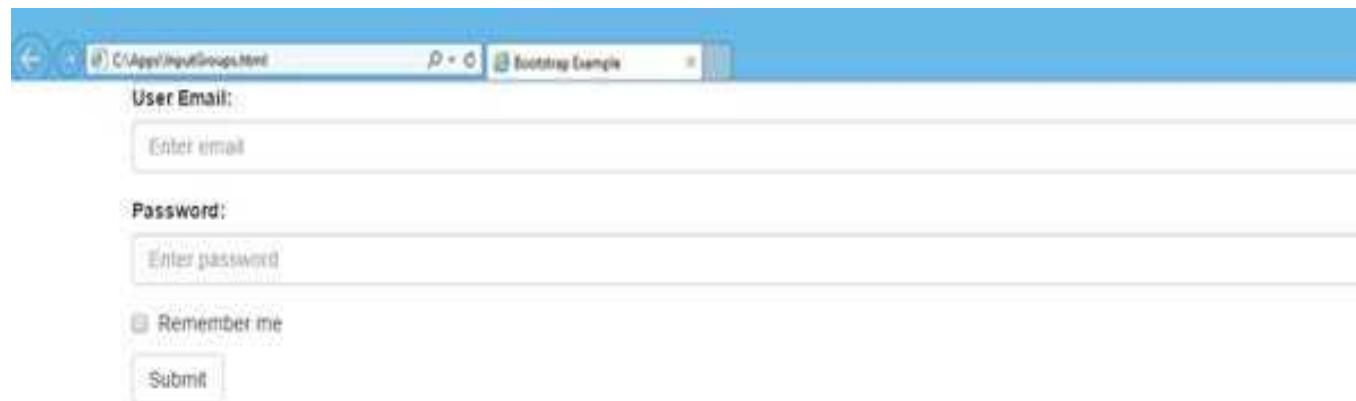
Horizontal

Inline

- Include each elements in <div> tag using *.form-group* class.
- Use *.form-control* class in <input>, <textarea>, and <select> elements.

Vertical Forms

- A default layout in bootstrap
- Styles are specified without a base class
- Controls are labeled and aligned to left
- Output of vertical form

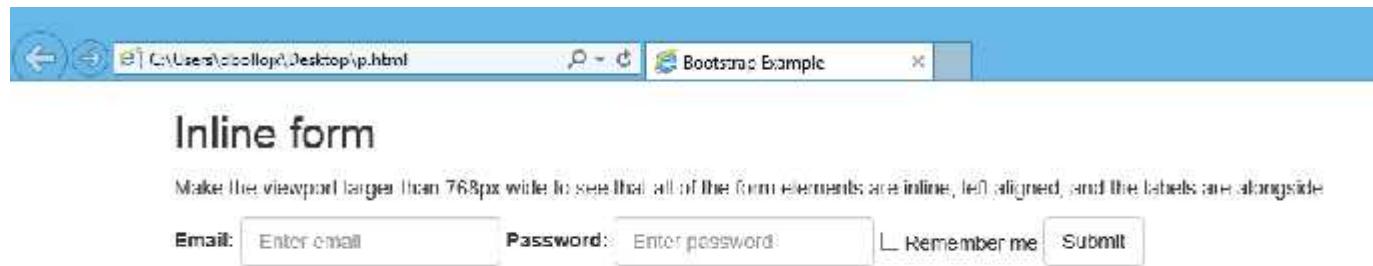


The screenshot shows a web browser window with the address bar displaying 'C:\App\Inputs\index.html'. The title bar says 'Bootstrap Example'. The main content area contains a vertical form with the following fields:

- User Email:
Input field placeholder: Enter email
- Password:
Input field placeholder: Enter password
- Remember me
-

Inline Forms

- All elements are in line, one after the other, and left aligned
- Width of viewport is 768 pixels
- Suits the screen of the device
- Controls are arranged side-by-side to adjust the layout vertically
- Output of the inline form:



Popover

- A pop-up dialog box
- Analogous to a tooltip
- Display much more content
- Not a CSS-only plugin, initialize through jQuery
- Output of the popover:





Summary (1-3)

- Each Bootstrap component is reusable and comprises an HTML structure, CSS code, and even associated JavaScript.
- Bootstrap provides a variety of JavaScript components, which are available as jQuery plugins.
- There are more than 250 glyphs in Bootstrap, which are available in **Glyphicon Halflings** files.
- An icon class is applicable to elements that have neither text nor child elements.
- A navbar is a responsive navigation header visible on the top of a Webpage and is collapsible or extensible.
- Pagination refers to a block of numbers, each indicating a different page of a Website.



Summary (2-3)

- Badges are special labels indicating new items, which is similar to the number of unread emails near the Inbox tab in an e-mail account.
- A panel refers to a container that can hold other components such as lists and tables with proper padding.
- A list group renders an unordered list of items as well as complex and tailored content.
- Bootstrap offers four main types of progress bars namely, default, striped, animated, and stacked.
- Programming in Bootstrap includes CSS in the head section and JavaScript/jQuery in the body section.



Summary (3-3)

- The **html5shiv.js** and **respond.min.js** files are included in the Bootstrapped template so that IE 8 can render the HTML5 elements.
- Bootstrap offers three form layouts namely, vertical (default), horizontal, and inline.



Q & A