



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:
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:



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">
```

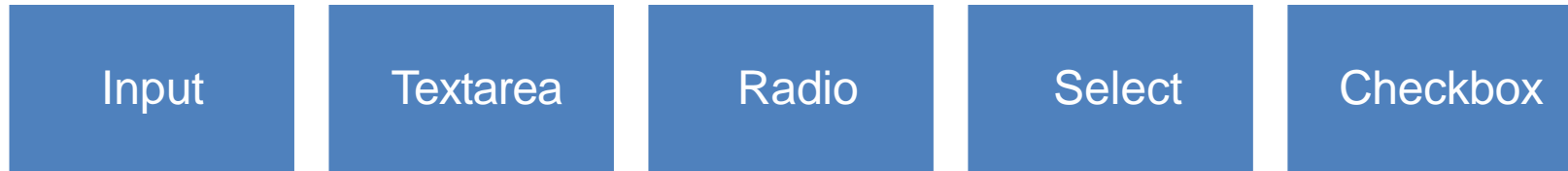


Input Groups (1-3)

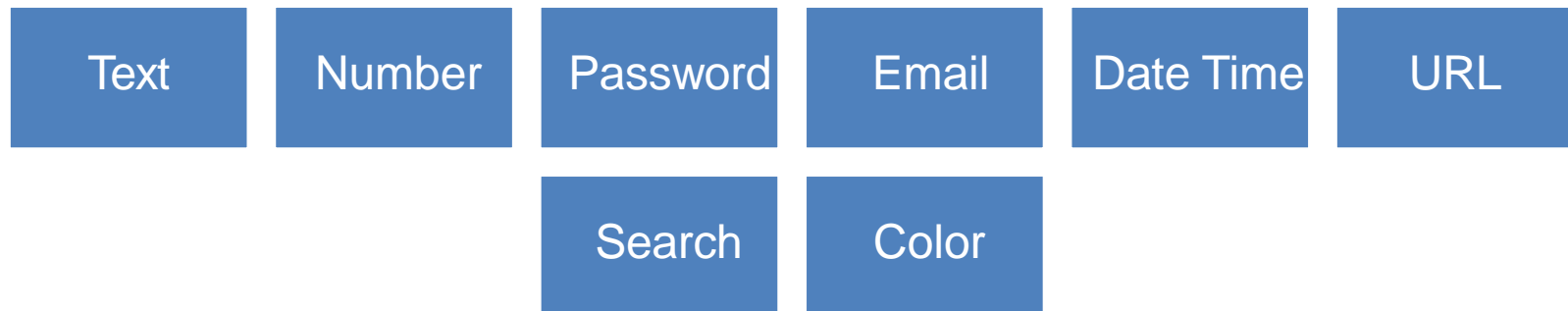
- Referred as extended form controls
- Easy to append or prefix icons, buttons, or text.
- **.input-group** container class adds help text, button, or an icon.
- **.input-group-addon** class affixes text, icon, or button
- **Form-group** class adds space between controls

Input Groups (2-3)

- Bootstrap supports following form controls:



- Also supports input types:



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



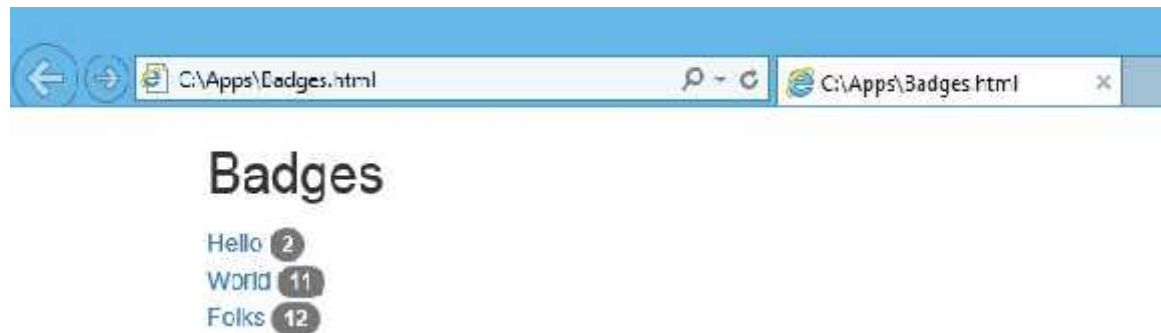
Example Page Header Subtext for header

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

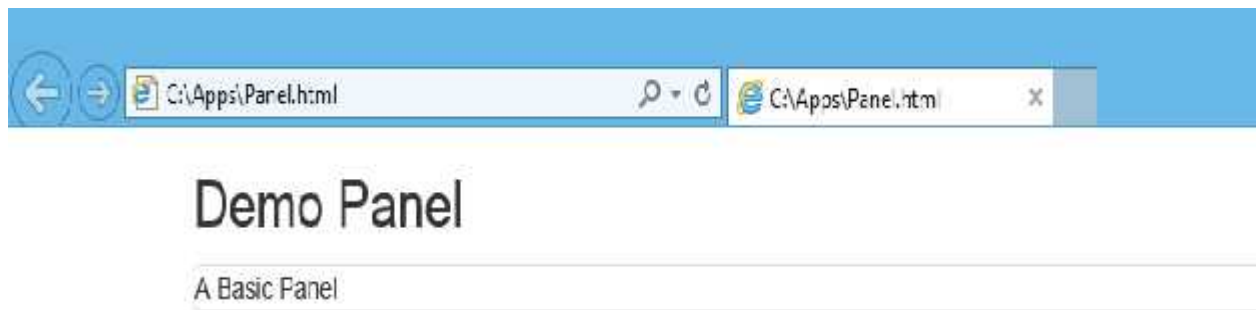


Panels

- 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

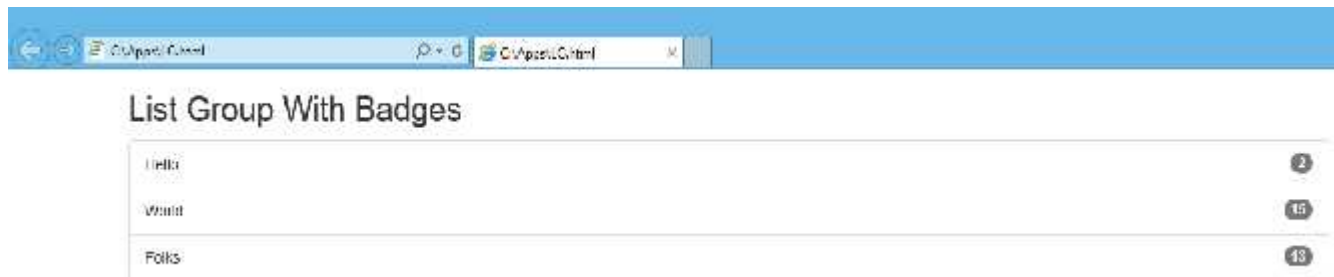


List Groups

- 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">Polks <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:

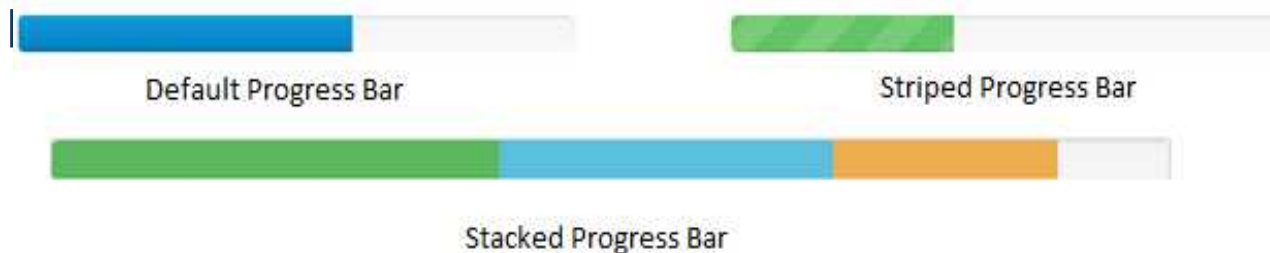
Default

Stripped

Animated

Stacked

- Examples of progress



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:

Bootstrap CSS in the head section

Bootstrap JavaScript at the end of the

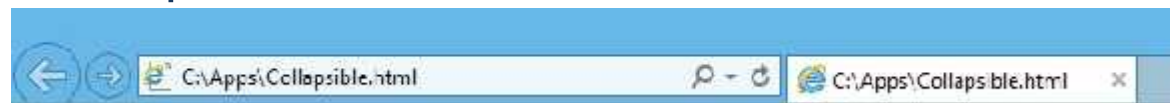
body jQuery at the end of the body

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

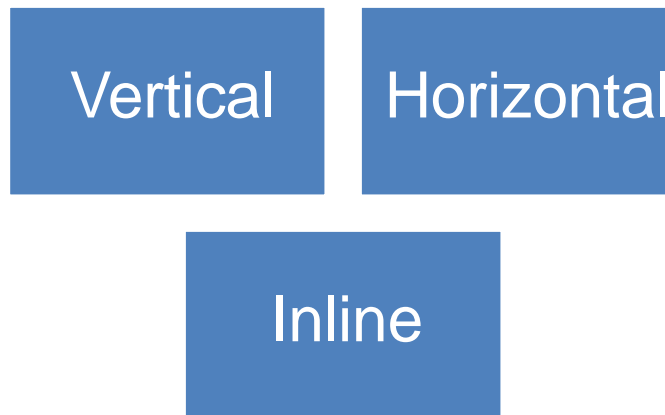
Collapsibles are useful when you want to hide and show large amount of content

- Collapsible hidden by default



Demo on Bootstrap Functionality

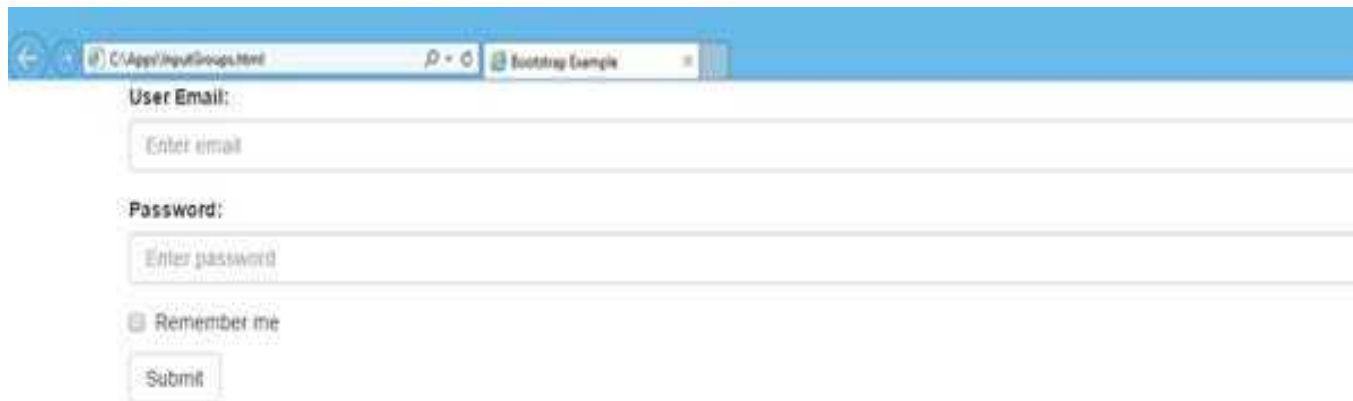
- Bootstrap offers three layouts for forms:



- 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

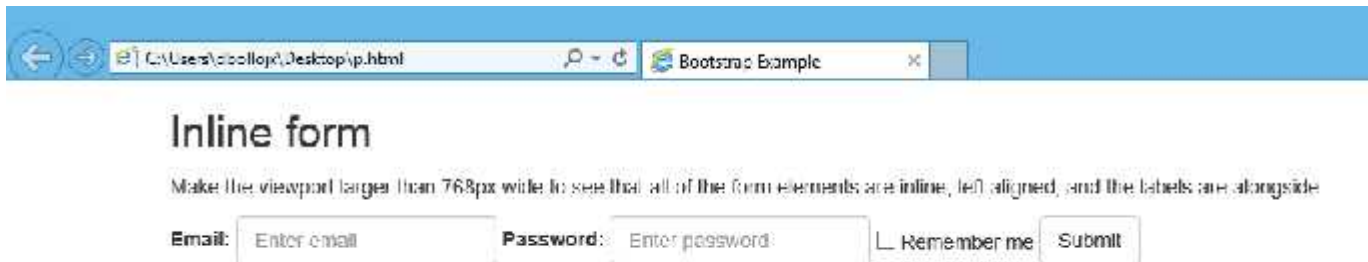


The screenshot shows a web browser window with the address bar displaying "C:\App\input\groups.html" and the page title "Bootstrap Example". The form is a vertical layout with the following elements:

- User Email:** A text input field with the placeholder text "Enter email".
- Password:** A text input field with the placeholder text "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:



The screenshot shows a web browser window with a blue header bar. The address bar displays the file path "C:\Users\jcollopy\Desktop\ip.html" and the page title is "Bootstrap Example". The main content area has a heading "Inline form" and a subtext "Make the viewport larger than 768px wide to see that all of the form elements are inline, left aligned, and the labels are alongside". Below this, there is an "Email:" label followed by a text input field containing "Enter email", a "Password:" label followed by a text input field containing "Enter password", a "Remember me" checkbox, and a "Submit" button.

Inline form

Make the viewport larger than 768px wide to see that all of the form elements are inline, left aligned, and the labels are alongside

Email: Password: ☐ Remember me

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 **Glyphicons 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 e-mails 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