



Understanding Programming in Bootstrap

Session 2



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

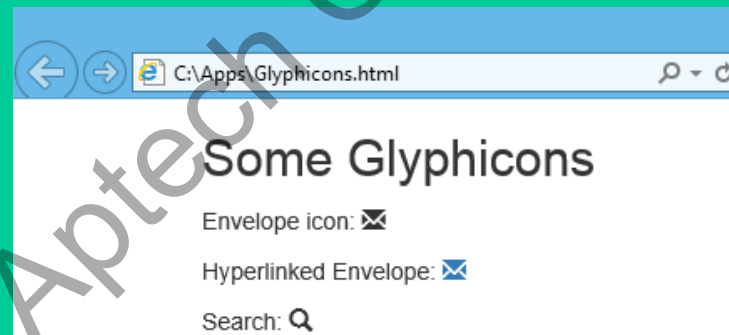


Glyphicons (2-2)

- 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">
```



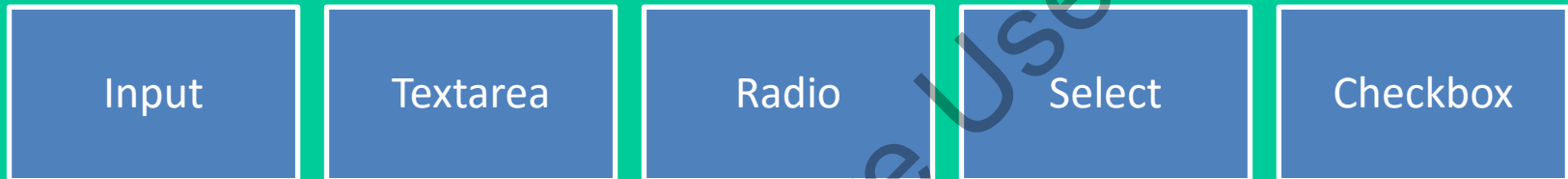
Input Groups (1-3)

- 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

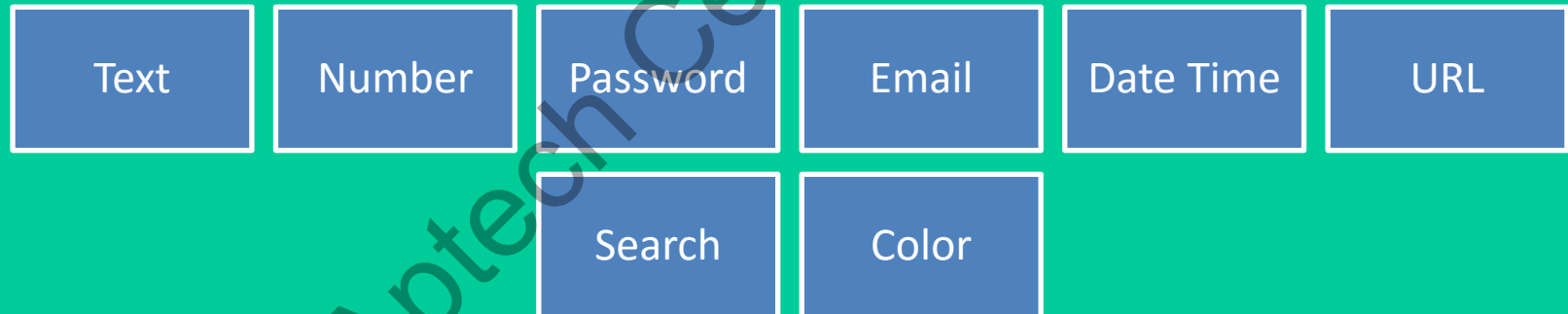


Input Groups (2-3)

- 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>
```

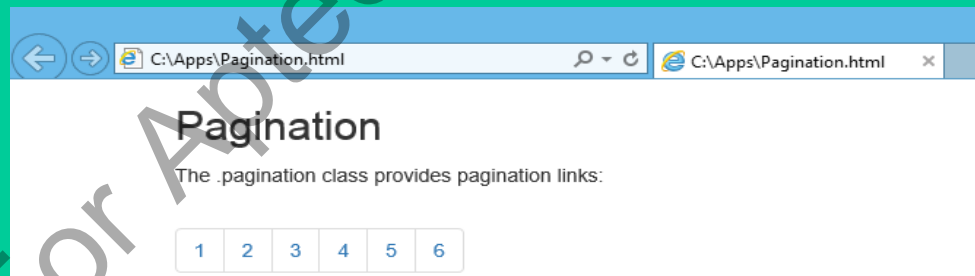


Pagination

- 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:

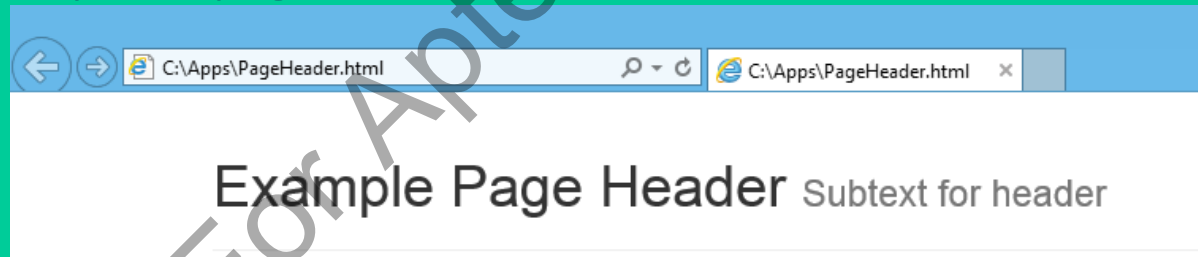


Page Headers

- 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

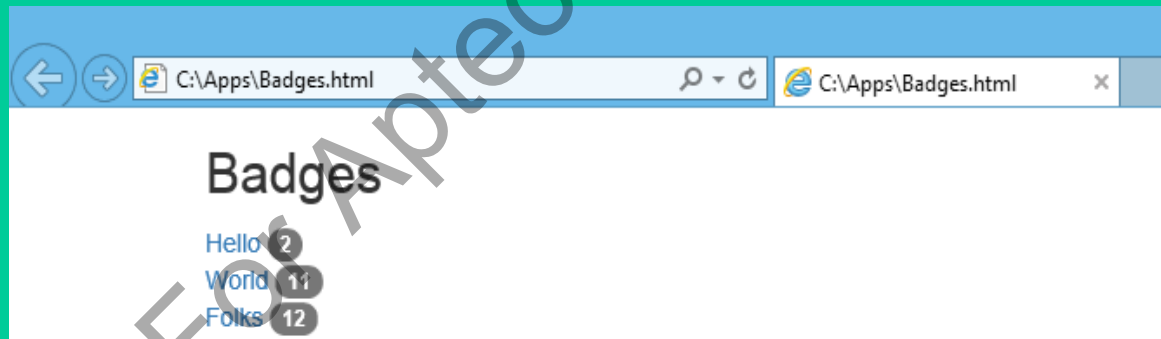


Badges

- 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

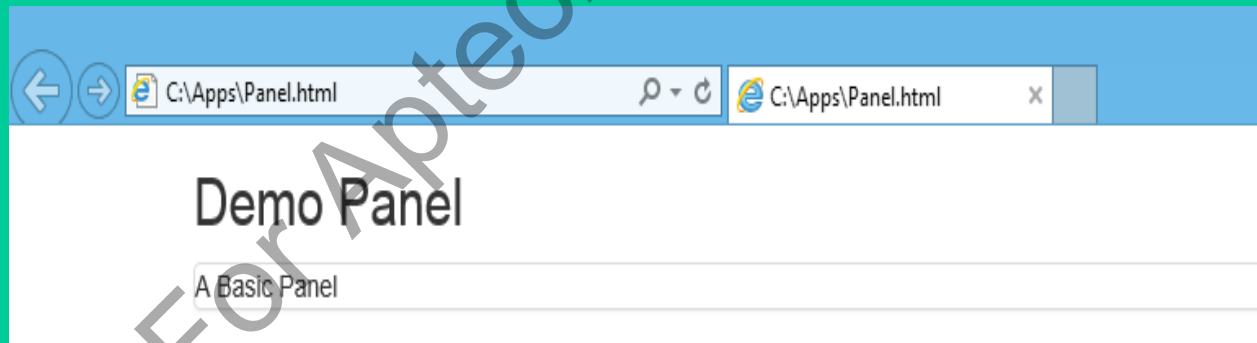


Panels

- 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

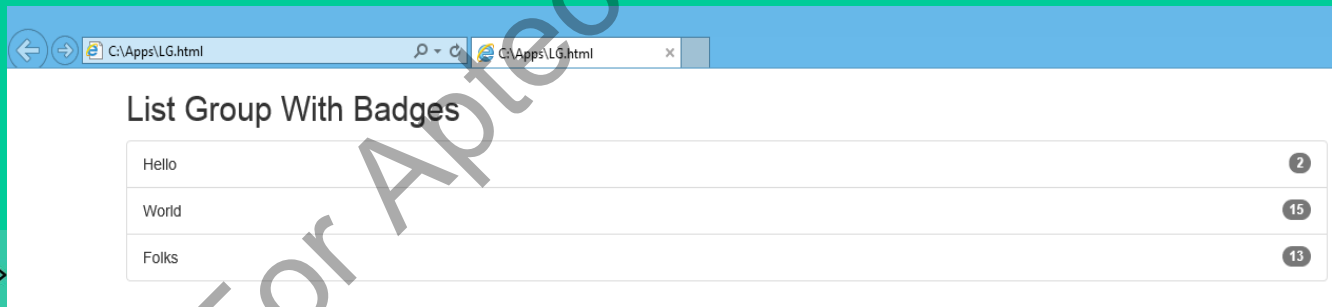


List Groups

- 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:

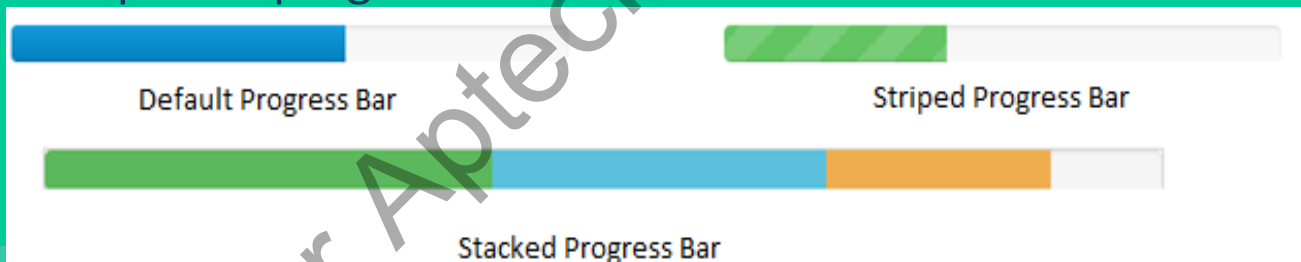
Default

Stripped

Animated

Stacked

- Examples of progress bars:



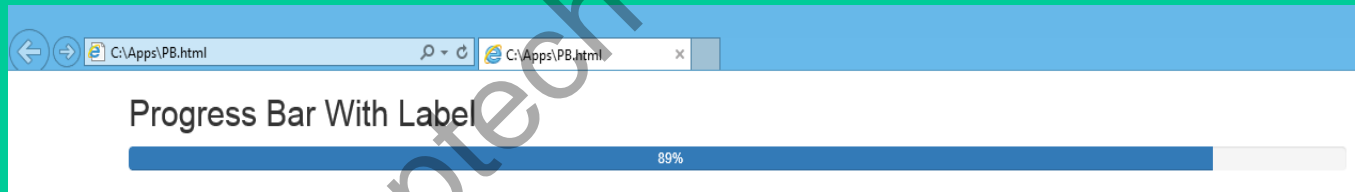
Progress Bars (2-2)

- 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

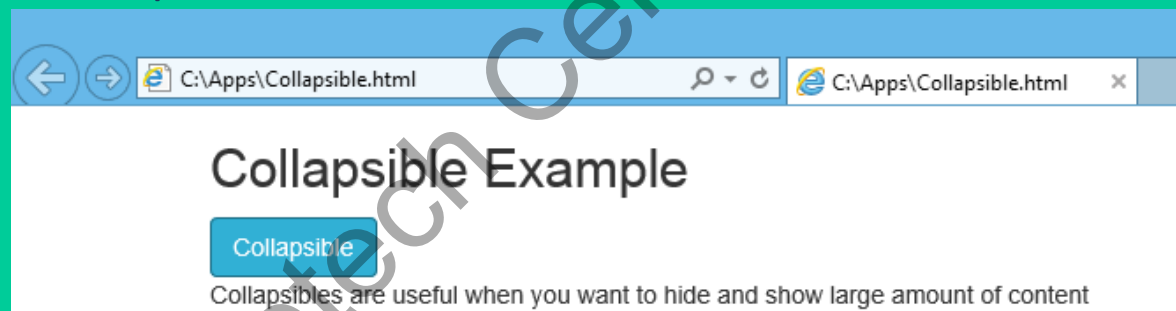


Programming in Bootstrap (2-2)

- 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:

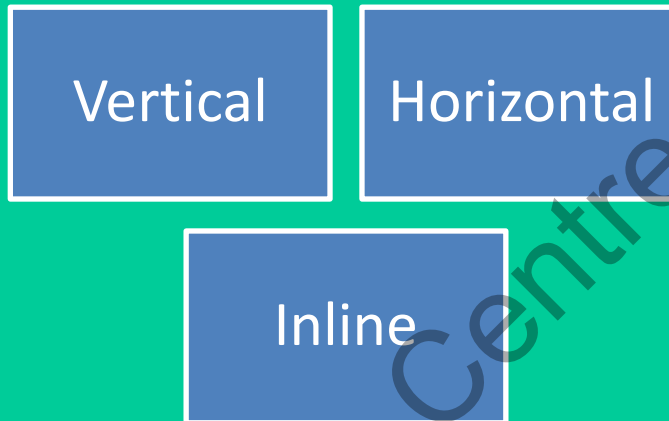


- Collapsible hidden by default



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

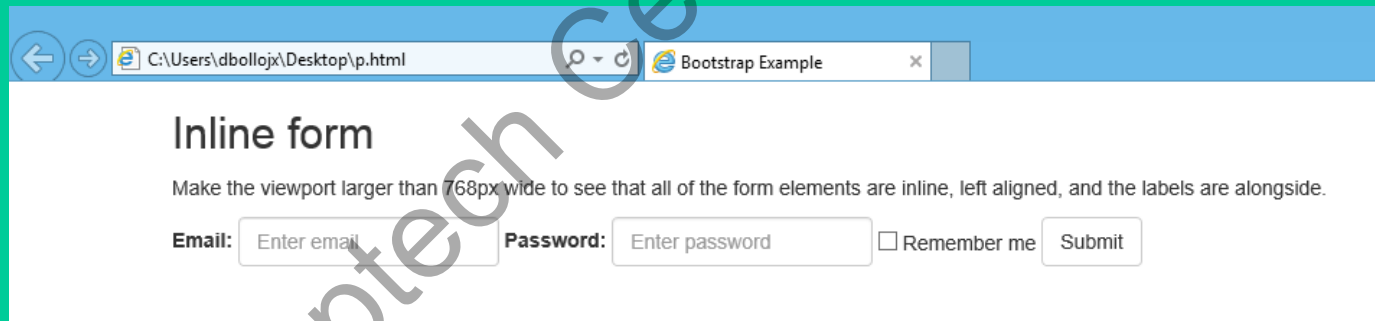


A screenshot of a web browser displaying a vertical form. The browser's address bar shows the file path "C:\App\inputGroups.html" and the page title is "Bootstrap Example". The form is styled with Bootstrap's default vertical form layout. It includes a label "User Email:" followed by a text input field with the placeholder "Enter email". Below this is a label "Password:" followed by a password input field with the placeholder "Enter password". Under the password field is a checkbox labeled "Remember me". At the bottom of the form is a "Submit" button. The form is centered on the page with a light gray background.



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:

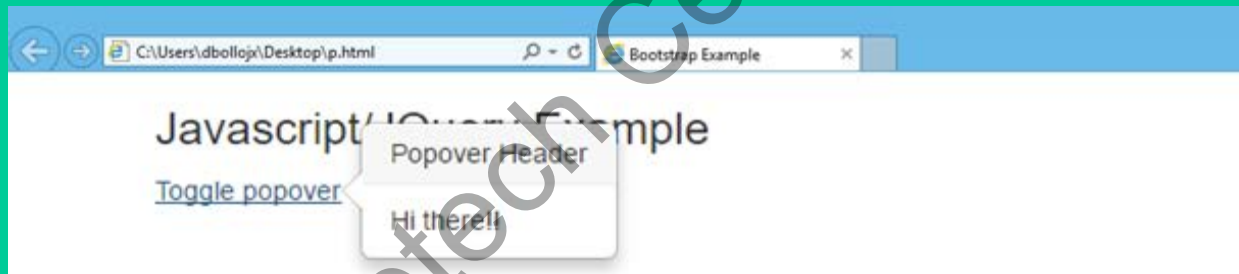


The screenshot shows a web browser window with the address bar displaying 'C:\Users\dbollojx\Desktop\p.html' and a tab titled 'Bootstrap Example'. The page content is titled 'Inline form' and includes a subtext: 'Make the viewport larger than 768px wide to see that all of the form elements are inline, 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 checkbox labeled 'Remember me', and a 'Submit' button.



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.

