

Bootstrap and JavaScript

- Bootstrap's JavaScript support is through JS Plugins
 - Plugins written based on JQuery
 - Plugins can be individually included

Bootstrap and JavaScript



Bootstrap JS Components



JQuery



JavaScript

Bootstrap JS Components

- JS components can all be used without writing a single line of JavaScript:
 - data-* attributes (e.g., data-toggle, data-spy)
 - Straightforward approach to use plugins
 - We will explore this approach in this module
- Full JS API available if needed
 - Need to know JQuery syntax and JavaScript

JQuery

- Lightweight Javascript library
- Feature-rich:
 - HTML/DOM manipulation
 - CSS manipulation
 - HTML Event methods
 - Effects and animations
 - AJAX
- Bootstrap JS components build upon JQuery

JQuery Syntax

- `$(selector).action()`
 - `$`: define/access JQuery
 - `(selector)`: to query and find HTML elements
 - `action()`: action to be performed on the element(s)
 - e.g., `$(“p”).hide()`, `$(“#mycarousel”).carousel(‘pause’)`

Bootstrap JQuery Example

```
<script>  
    $(document).ready(function(){  
        $('[data-toggle="tooltip"]').tooltip();  
    });  
</script>
```

JQuery Selectors

- Any HTML element e.g., “p”, “button” etc.
- Using an #id, e.g., “#myCarousel”
- Class, e.g., “.btn”, “.btn.btn-default”
- Attribute, e.g., “[href]”, “[data-toggle=“tooltip”]”
- Current element: \$(this).
- And a lot more . . .

JQuery Events

- User's interactions on a web page causing DOM events:
 - Mouse: click, dblclick, mouseenter, mouseleave
 - Keyboard: keypress, keydown, keyup
 - Form: submit, change, focus, blur
 - Document, Window: load, resize, scroll, unload
- JQuery Event Methods: e.g., ready(), click(), dblclick(), mousedown(), on()

Example: Bootstrap Carousel

- Data Attributes
 - data-slide="prev | next"
 - data-slide-to="0 | 1 | 2 | ..."
 - data-ride="carousel"
 - data-interval=5000

Example: Carousel

- JavaScript based control:
 - `$('.carousel').carousel();`
 - e.g.
`$('.carousel').carousel({ interval:2000});`

Example: Carousel

- Other controls:
 - `.carousel('cycle')`: cycle items left to right
 - `.carousel('pause')`: stops the carousel
 - `.carousel(number)`: cycles the carousel to a particular frame number specified
 - `.carousel('prev')`: previous item
 - `.carousel('next')`: next item

Example: Carousel

- Events:
 - `slide.bs.carousel`: fires when the slide instance method is invoked
 - `slid.bs.carousel`: fired when the carousel has completed its slides transition
 - Use with the `.on()` method:

```
$("#myCarousel").on('slide.bs.carousel', function() {  
    // do something  
})
```

Exercise: Bootstrap and JQuery

- Add two buttons to the Carousel to pause/resume the slide transition
- Activate the buttons using JavaScript