

# Bootstrap and JQuery

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# 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