JavaScript Plugins

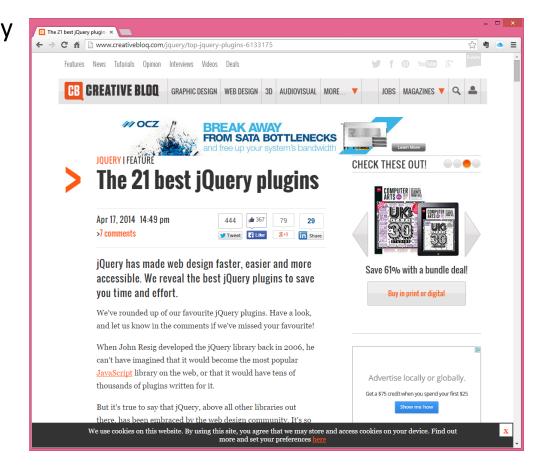
Featuring: jQuery UI

Finding & Evaluating Plugins

- "Plugin" = an industry term that means: a JavaScript library that depends on another JavaScript (often jQuery) to extend its functionality.
- The jQuery ecosystem
 - One of the most celebrated aspects of jQuery is its extensive plugin ecosystem.
 - From table sorting to form validation to auto-completion if there's a need for it, chances are good that someone has written a plugin for it.
- Quality control
 - The quality of jQuery plugins varies widely. Many plugins are extensively tested and well-maintained, but others are hastily created and then ignored.
 - More than a few fail to follow best practices.

jQuery plugin Programmers

- jQuery plugins are written by programmers to use privately in their own code or be released into the wild.
- There are thousands of jQuery plugins available online.
 The barrier to creating a plugin is so low that many amateur programmers do so with no understanding (or care) to who may use it or why.
- "Buyer" beware



"jQuery UI" – a plugin

 "jQuery UI" is a widget and interaction library built on top of the jQuery JavaScript Library that you can use to build highly interactive

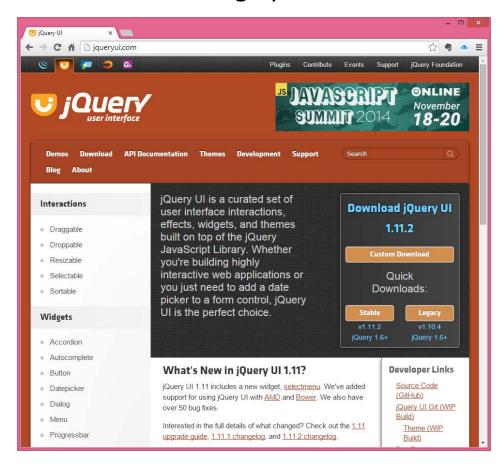
web applications.

Quality control on jQuery UI is very good

• Note: "jQuery UI" is not jQuery

jQuery source: http://jquery.com

• jQuery UI source: http://jqueryui.com



Plugin parts

- The specifics on how to install a particular plugin comes from the author of the plugin.
- There maybe between 3 5 parts involved (depending on the plugin)
- Because JavaScript is all "open source", after installing a plugin, you are free to modify it.
- jQuery UI Parts (from www.jqueryui.com)
 - 1. jQuery script (from jquery.com)
 - 2. jQuery UI script (from jqueryui.com)
 - 3. CSS file (from jqueryui.com)
 - 4. Initialization and options script (instructions from jqueryui.com)
 - 5. Content, arranged in a specific way (instructions from jqueryui.com)

1. Install jQuery

- jQuery website: www.jquery.com
- You can use the same jQuery library to power all jQuery behaviors
 - Important: only load this library once on the webpage, even if you are installing multiple plugins
- Download and insert:

```
<script src="js/jquery.js"></script>
```

or point to a CDN:

```
<script src="http://code.jquery.com/jquery.js"></script>
```

- Insert the jQuery script near the bottom of the HTML document, above the closing </body> tag.
 - Remember: the jQuery script must be inserted above any other JavaScript that uses it

2. Install the plugin (jQuery UI)

- jQuery UI website: www.jqueryui.com
- You can use the same plugin to power all jQuery UI behaviors
 - Important: only load this library once on the webpage, even if you are planning to use multiple "widgets"
- Download and insert:

```
<script src="js/jquery-ui.js"></script>
or point to a CDN:
```

<script src="http://code.jquery.com/ui/1.11.4/jquery-ui.js"></script>
• Insert the jQuery UI script near the bottom of the HTML document,

below the jQuery script hear the bottom of the HTML document,

3. Install the plugin's CSS (jQuery UI CSS)

- jQuery UI website: www.jqueryui.com
 - Find the generic CSS or a customized theme and download it
 - Note: You can use the same CSS to style all jQuery UI widgets
- Download and insert

```
rel="stylesheet" href="css/jquery-ui.css"></script>
...and download its associated images folder that goes in the CSS folder
```

or point to a CDN:

```
<link rel="stylesheet" href="http://code.jquery.com/ui/1.11.4/themes/smoothness/jquery-ui.css">
```

• Insert the jQuery CSS link in the <head> of your HTML document

4a. Initialize the Script

- From the jQuery UI website, look-up what you need to use to initialize the particular widget you want to use.
- Inert the initialization string(s)
 Example...

```
<script>
    $( "#accordion" ).accordion();
</script>
```

...below the jQuery and jQuery UI scripts

4b. Initialize the Script with Options

- From the jQuery UI website, look-up the customization options you want to use for each widget.
- Insert the customization options into the initialization strings, between curly braces, inside the parenthesis like this...

 Notice that commas go after each option, but not after the last option

5. Arrange HTML Content in a Specific Way

• From the jQuery UI website, look-up the way content must be arranged in your HTML for each widget to work.

Example (in HTML):

```
<div id="accordion">
    <h3>First header</h3>
    <div>First content panel</div>
    <h3>Second header</h3>
    <div>Second content panel</div>
</div>
```