

# Chapter 11

How to use jQuery plugins  
and jQuery UI widgets

# Objectives

- Introduction to jQuery plugins
- How to use three of the most popular plugins
- Introduction to jQuery UI
- How to use five of the most popular jQuery UI widgets



# Introduction to jQuery plugins



# Introduction to jQuery plugins

- ***jQuery plugins*** are JavaScripts applications that extend the functionality of jQuery.
- These plugins require the use of the core jQuery library.
- Plugins are available for hundreds of web functions like slide shows, carousels, tabs, menus, text layout, data validation and mobile application development.



# How to find jQuery plugins

- You can use google search to find jQuery plugins

## Web sites for finding jQuery plugins

Site name	URL
jQuery Plugin Repository	<a href="http://plugins.jquery.com">http://plugins.jquery.com</a>
jQuery Plugins	<a href="http://www.jqueryplugins.com">http://www.jqueryplugins.com</a>
Google Code	<a href="http://code.google.com">http://code.google.com</a>
GitHub	<a href="https://github.com">https://github.com</a>
Sourceforge	<a href="http://sourceforge.net">http://sourceforge.net</a>



# Populars plugins

## Plugins for displaying images

Lightbox	<a href="http://lokeshdhakar.com/projects/lightbox2/"><u>http://lokeshdhakar.com/projects/lightbox2/</u></a>
Fancybox	<a href="http://fancybox.net"><u>http://fancybox.net</u></a>
ThickBox	<a href="http://jquery.com/demo/thickbox"><u>http://jquery.com/demo/thickbox</u></a>
ColorBox	<a href="http://www.jacklmoore.com/colorbox"><u>http://www.jacklmoore.com/colorbox</u></a>

## Plugins for slide shows, carousels

bxSlider	<a href="http://bxslider.com"><u>http://bxslider.com</u></a>
Malsup jQuery Cycle	<a href="http://jquery.malsup.com/cycle"><u>http://jquery.malsup.com/cycle</u></a>
jCarousel	<a href="http://sorgalla.com/jcarousel"><u>http://sorgalla.com/jcarousel</u></a>



# How to use any jQuery plugin

- General steps for using a plugin
  1. Study the document for the plugin.
  2. Download files of plugin or find the the link of it in CDN.
  3. Code the link CSS and JavaScript files is required by plugin.
  4. Save the included picture in right structure relationship with CSS and JavaScript file.
  5. Code HTML and CSS for page so it is appropriate for the plugin.
  6. If necessary, write the jQuery code that use the methods and options of the plugin.



# Example to use a plugin

## The script elements for the jQuery library and the bxSlider plugin

```
<!-- the script element for the core jQuery library -->
<script src="http://code.jquery.com/jquery-latest.min.js"></script>
<!-- the script element for the plugin when it has been downloaded -->
<script src="js/jquery.bxSlider.min.js"></script>
```

## The HTML used by the bxSlider plugin

```
<ul id="slider">
  <li></li>
  <!-- more li elements -->
  <li></li>
</ul>
```

## The jQuery for using the bxSlider plugin

```
$(document).ready(function(){
  $("#slider").bxSlider(
    {
      displaySlideQty: 2,          // a plugin option
      moveSlideQty: 2             // another plugin option
    }
  );
});
```





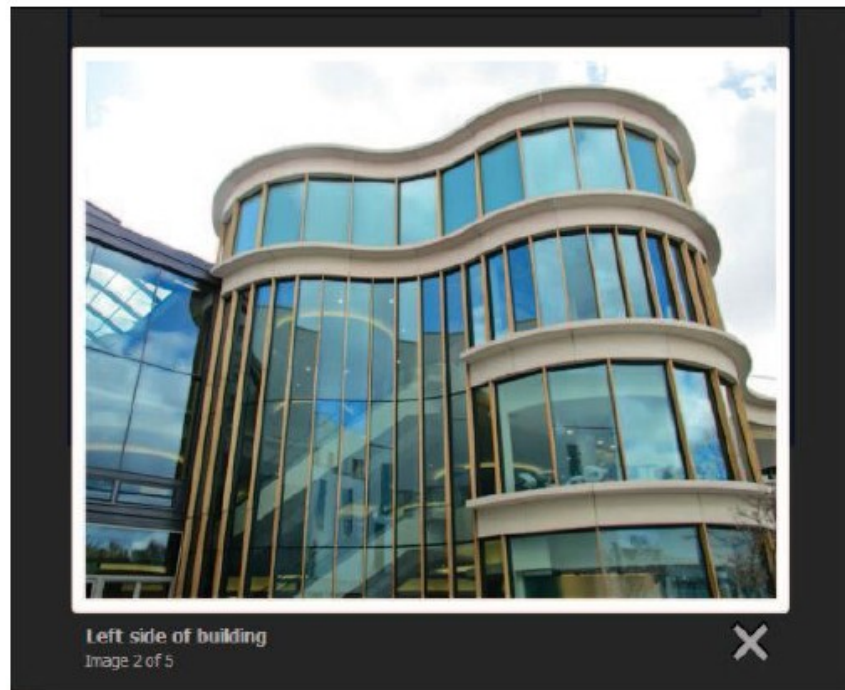
# How to use three of the most popular plugins



# How to use the Lightbox plugin

- The Lightbox plugin can be used to display larger versions of thumbnail images.

**A web page that uses the Lightbox plugin**



**The URL for this plugin**

**<http://lokeshdhakar.com/projects/lightbox2/>**



# How to use the Lightbox plugin (cont.)

## The link and script elements for the Lightbox plugin

```
<!-- the link element for the CSS file -->  
<link href="lightbox.css" rel="stylesheet">  
<!-- the script element for the plugin -->  
<script src="js/lightbox.js"></script>
```

## The HTML for the Lightbox plugin

```
<a href="images/building_01.jpg" rel="lightbox[vecta]"  
  title="Front of building">  
  </a>  
<a href="images/building_02.jpg" rel="lightbox[vecta]"  
  title="Left side of building">  
  </a>  
<!-- more img elements within <a> elements -->
```



# How to use the bxSlider plugin

- The bxSlider plugin makes it easy to develop a carousel.

**A web page that uses the bxSlider plugin for a carousel**



**The URL for this plugin**

<http://bxslider.com>



# How to use the bxSlider plugin(cont.)

- The link and scrip elements for the bxSlider plugin

```
<link href="jquery.bxslider.css" rel="stylesheet">
```

```
<script src="https://code.jquery.com/jquery-1.8.2.min.js"> </script>
```

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

- The HTML for the bxSlider plugin

```
<ul id="slider">  
  <li></li>  
  <li></li>  
  <li></li>  
  <li></li>  
  <li></li>  
</ul>
```



# How to use the bxSlider plugin(cont.)

- The jQuery for using some of the bxSlider options

```
$(document).ready(function(){  
    $("#slider").bxSlider({  
        auto: true,  
        autoControls: true,  
        captions: true,  
        minSlides: 2,  
        maxSlides: 2,  
        slideWidth: 250,  
        slideMargin: 10  
    });  
});
```



# How to use the Cycle 2 plugin

- The Cycle 2 plugin treats the children of a div element as the slides.

## A web page that uses the Cycle plugin for slide shows



## The URL for this plugin

<http://jquery.malsup.com/cycle/>



# How to use the Cycle 2 plugin(cont.)

- The elements for the Cycle 2 plugin

```
<script src="https://code.jquery.com/jquery-3.1.1.min.js"> </script>
<script src="http://malsup.github.com/jquery.cycle2.js"> </script>
```

- The HTML for the bxSlider plugin

```
<div class= "cycle-slideshow"
    data-cycle-fx="scrollHors"
    data-cycle-timeout="2000"
    data-cycle-caption="#adv-custom-caption"
    data-cycle-caption-template=
        "Slide {{slideNum}}:{{cycleTitle}}" >
    <img src ="images/building_01.jpg" alt="" data-cycle-title="Front">
    <img src ="images/building_02.jpg" alt=""
        data-cycle-title="Left side">
    -----
    <div id= "adv-custom-caption"></div>
</div>
```





# Introduction to jQuery UI



# Introduction to jQuery UI

- **jQuery UI** is a free, open-source, JavaScript library that extend the jQuery library by providing higher-level features.

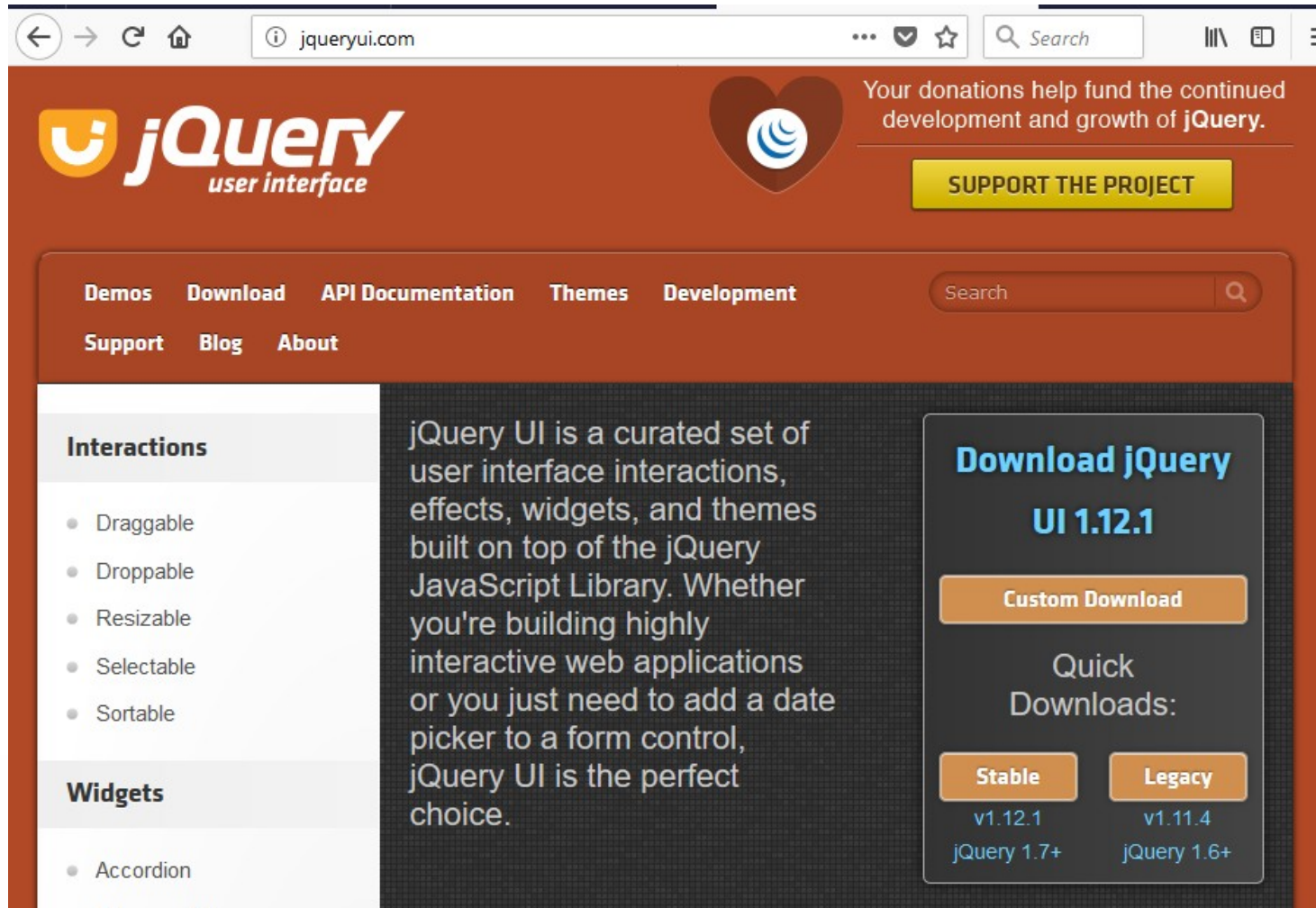
## The four types of features provided by jQuery UI

Name	Description
Themes	24 predefined themes as well as a ThemeRoller application that lets you create a custom theme. A theme is implemented by a CSS style sheet.
Widgets	Accordions, tabs, date pickers, and more.
Interactions	Draggable, droppable, resizable, and more.
Effects	Color animations, class transitions, and more.



# Introduction to jQuery UI (cont.)

- The jQuery UI website: <http://jqueryui.com>



# How to download jQuery UI

- You can download stable version for all basic components of jQuery UI or you can build a custom download by select components as you need.

## The Download Builder page

### Download Builder

**Version**  
1.9.0

---

**Components**  
☒ Toggle All

---

<b>UI Core</b> <input checked="" type="checkbox"/> Toggle All A required dependency, contains basic functions and initializers.	<input checked="" type="checkbox"/> Core The core of jQuery UI, required for all interactions and widgets. <input checked="" type="checkbox"/> Widget Provides a factory for creating stateful widgets with a common API. <input checked="" type="checkbox"/> Mouse Abstracts mouse-based interactions to assist in creating certain widgets. <input checked="" type="checkbox"/> Position Positions elements relative to other elements.
---	--

---

<b>Interactions</b> <input checked="" type="checkbox"/> Toggle All These add basic behaviors to any element and are used by many components below.	<input checked="" type="checkbox"/> Draggable Enables dragging functionality for any element. <input checked="" type="checkbox"/> Droppable Enables drop targets for draggable elements. <input checked="" type="checkbox"/> Resizable Enables resize functionality for any element. <input checked="" type="checkbox"/> Selectable Allows groups of elements to be selected with the mouse. <input checked="" type="checkbox"/> Sortable Enables items in a list to be sorted using the mouse.
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<b>Widgets</b> <input checked="" type="checkbox"/> Toggle All Full-featured UI Controls -	<input checked="" type="checkbox"/> Accordion Displays collapsible content panels for presenting information in a limited amount of space. <input checked="" type="checkbox"/> Autocomplete Lists suggested words as the user is typing.
---	---



# How to include jQuery UI in your web pages

- The code to include the downloaded files in your application.

`<!--link elements for the jQuery UI stylesheet -->`

`<link rel="stylesheet" href="/jquery-ui-1.12.1/jquery-ui.min.css">`

`<!--The script elements for the jQuery and jQuery UI library -->`

`<script src="https://code.jquery.com/jquery-3.1.1.min.js"></script>`

`<script src="jquery-ui.min.js"></script>`



# How to use any jQuery UI widget

- The follows steps to use any widget:
  1. Read the document of widget to get to know how to use it.
  2. Download and store right images folder of widget relationship with script and css of jQuery UI.
  3. Code a selector, the method to be used, and the options.



# How to use any jQuery UI widget (cont.)

- The document for widget from jQuery UI website

### Interactions

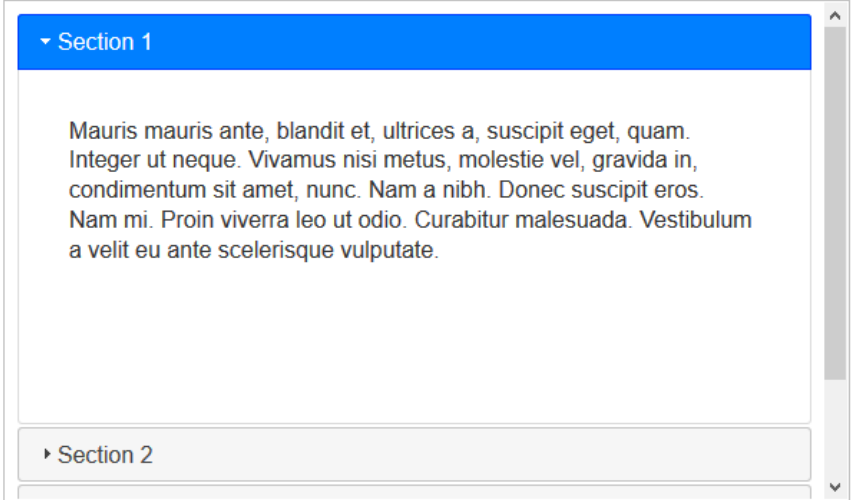
- Draggable
- Droppable
- Resizable
- Selectable
- Sortable

### Widgets

- Accordion
- Autocomplete
- Button
- Checkboxradio
- Controlgroup
- Datepicker
- Dialog

## Accordion

*Displays collapsible content panels for presenting information in a limited amount of space.*



### Examples

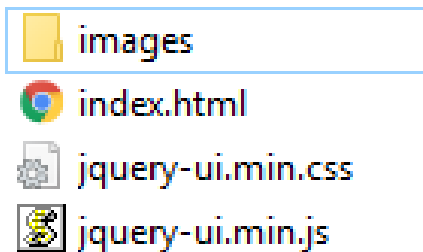
Default functionality
Collapse content
Customize icons
Fill space
No auto height
Sortable

Click headers to expand/collapse content that is broken into logical sections, much like tabs. Optionally, toggle sections open/closed on mouseover.



# How to use any jQuery UI widget (cont.)

- The images folder and jQuery UI file relationship



- The jQuery for using a widget

```
$(document).ready(function(){  
    $("selector").widgetMethod({  
        // option settings  
    });  
});
```



# How to use five of the most popular jQuery UI widgets



# How to use the Accordion widget

## An Accordion widget

### jQuery FAQs

▸ What is jQuery?

▾ Why is jQuery becoming so popular?

Three reasons:

- It's free.
- It lets you get more done in less time.
- All of its functions are cross-browser compatible.

▸ Which is harder to learn: jQuery or JavaScript?



# How to use the Accordion widget (cont)

## The HTML for the accordion

```
<div id="accordion">
  <h3><a href="#">What is jQuery?</a></h3>
  <div>
    <!-- the content for the panel -->
  </div>
  <h3><a href="#"> Why is jQuery becoming so popular?</a></h3>
  <div>
    <!-- the content for the panel -->
  </div>
  <h3><a href="#">Which is harder to learn: jQuery or JavaScript?</a></h3>
  <div>
    <!-- the content for the panel -->
  </div>
</div>
```

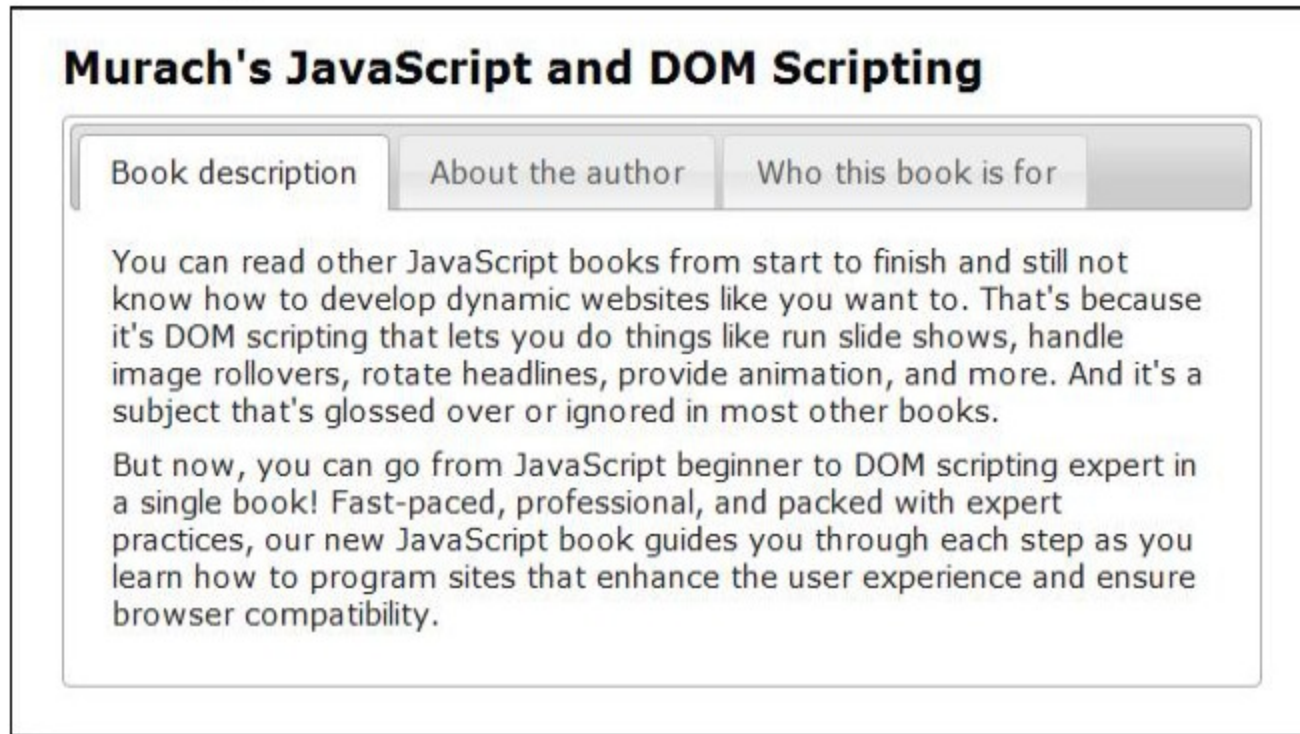
## The jQuery for the accordion

```
$(document).ready(function(){
  $("#accordion").accordion({
    event: "mouseover",
    collapsible: true
  });
});
```



# How to use the Tabs widget

## A Tabs widget



# How to use the Tabs widget (cont.)

## The HTML for the tabs

```
<div id="tabs">
  <ul>
    <li><a href="#tabs-1">Book description</a></li>
    <li><a href="#tabs-2">About the author</a></li>
    <li><a href="#tabs-3">Who this book is for</a></li>
  </ul>
  <div id="tabs-1"><!-- the content --></div>
  <div id="tabs-2"><!-- the content --></div>
  <div id="tabs-3"><!-- the content --></div>
</div>
```

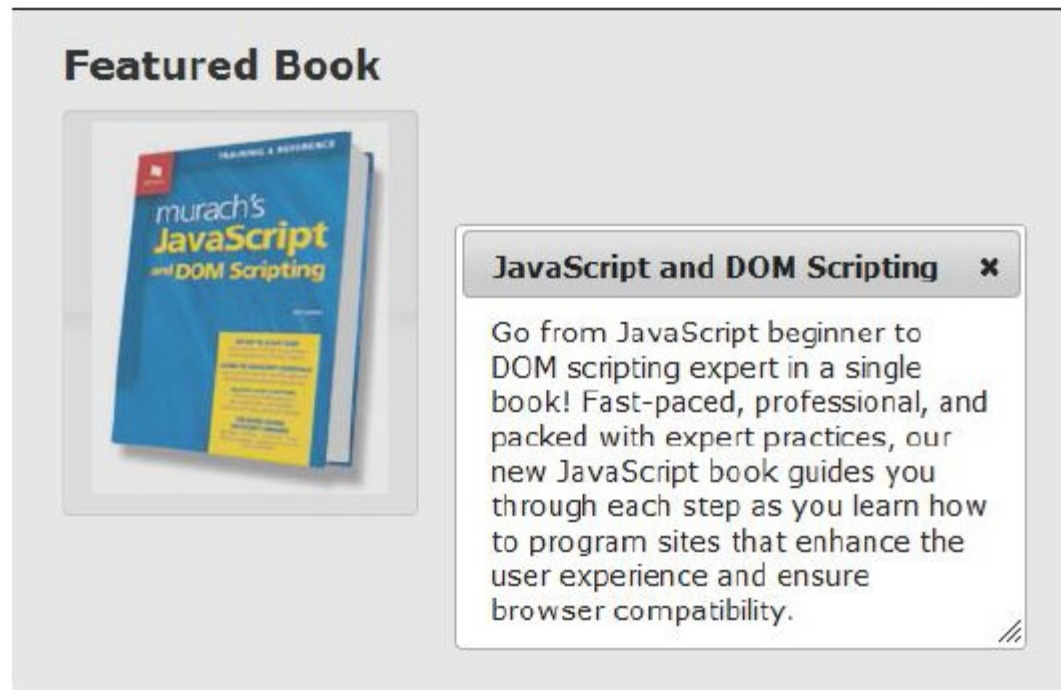
## The jQuery for the tabs

```
$(document).ready(function(){
  $("#tabs").tabs();
});
```



# How to use the Button and Dialog widgets

## A Button widget that activates a Dialog widget



# How to use the Button and Dialog widgets (cont.)

## The HTML for the Button and Dialog widgets

```
<a id="book"></a>
<div id="dialog" title="JavaScript and DOM Scripting" style="display:none;">
  <!-- the content for the dialog box -->
</div>
```

## The jQuery for the Button and Dialog widgets

```
$(document).ready(function(){
    $("#book").button();
    $("#book").click(function() {
        $("#dialog").dialog({ modal: true });
    });
});
```



# How to use the Datepicker widget

## A Datepicker widget with no options set

Arrival date:

September 2012

Su	Mo	Tu	We	Th	Fr	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						



# How to use the Datepicker widget (cont.)

## The HTML for the Datepicker widget

```
<label>Arrival date:</label>  
<label><input type="text" id="datepicker"></label>
```

## The jQuery for the Datepicker widget with no options

```
$(document).ready(function(){  
    $("#datepicker").datepicker();  
});
```

## The jQuery for the Datepicker widget with three options

```
$(document).ready(function(){  
    $("#datepicker").datepicker({  
        minDate: new Date(),  
        maxDate: +45,  
        showButtonPanel: true  
    });  
});
```



# Summary

- ***jQuery plugins*** are JavaScripts applications that extend the functionality of jQuery.
- Plugins are available for hundreds of web functions like slide shows, carousels, tabs, menus, text layout, data validation and mobile application development.
- **jQuery UI** is a free, open-source, JavaScript library that extends the jQuery library by providing higher-level features.
- The four types of features of jQuery UI are widgets, interactions, themes and effects.



The End.

