

# CLIENT SIDE WEB DEVELOPMENT TEMA6: JQUERY INTRODUCTION

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# 1. What are they

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- ❑ The growing jQuery community has created hundreds of plugins.
- ❑ "If you want to create an animation, effect, or UI component, chances are pretty good that someone has done the work for you already." → [plugins.jquery.com](http://plugins.jquery.com)
- ❑ Many of the plugins listed in this Plugin Registry have links to demos, example code, and tutorials to help us get started.
- ❑ The plugins referenced from this registry are all managed in the GitHub (<http://github.com/>).

# 1. What are they

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Which JavaScript plugin should you use? Check this interesting [link](#).

## 2. jQuery plugin usage

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□ How to proceed:

1. Download the plugin and associated files from the site or github repo.
2. Copy them into your project folder.
3. In the HTML, reference any associated CSS files.,

```
<link rel="type/stylesheet" type="text/css" href="tablesorter.css">
```

4. In the HTML, add a `<script>` tag for the jQuery plugin itself.

```
<script src="lib/tablesorter.js"></script>
```

5. In the JavaScript, call the jQuery plugin on your DOM.

```
$('#table').tableSorter();
```

## 2. jQuery plugin usage

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- Exercise 1: Use of [jQuery Cycle plugin](#).
  - This plugin allows us to quickly transform a static set of page elements into an interactive slideshow.
- 1. Download *A65.rar* folder. I have already downloaded the [plugin](#) for you.
- 2. Have a look at the header of the html document and its references:

```
<link rel="stylesheet" href="07.css" type="text/css" />
<link rel="stylesheet" href="ui-themes/smoothness/jquery-ui-1.10.0.custom.css" type="text/css" />

<script src="jquery.js"></script>
<script src="jquery.cycle.all.js"></script> ★
<script src="jquery.cookie.js"></script>
<script src="jquery-ui-1.10.0.custom.min.js"></script>
<script src="07.js"></script>
```

## 2. jQuery plugin usage

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### 4. Inside 07.js file:

```
$(document).ready(function() {  
    $('#books').cycle();  
});
```

- ▣ We apply `.cycle()` to the jQuery object we want to manipulate.
- ▣ Even without providing any arguments to it, `.cycle()` does a lot of work for us.

## 2. jQuery plugin usage

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5. Specifying plugin method parameters:
  - ▣ .cycle() has more than 50 configuration options.
  - ▣ The [documentation](#) for each plugin details the effect of each option, often with detailed examples.

Now, I want you to set the cycle with *timeout* set to 2000 (2 seconds), *speed* set to 200 and *pause* set to *true*.



## 2. jQuery plugin usage

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### 6. Modifying parameter defaults:

- ▣ The `$.fn.cycle.defaults` object contains all of the default options.
- ▣ This time I want you to set a default value for the *timeout* set to *10000* and *random* to be *true*.

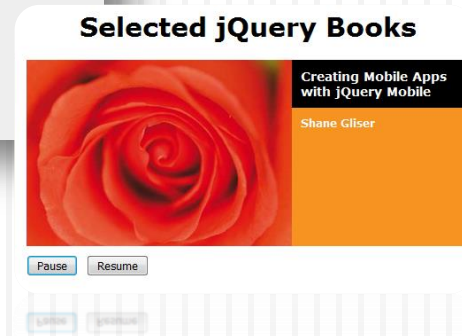
```
$.fn.cycle.defaults.timeout = 10000;  
$.fn.cycle.defaults.random = true;  
$(document).ready(function() {  
    $('#books').cycle({  
        timeout: 2000,  
    });  
});
```

## 2. jQuery plugin usage

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7. Cycle's slideshows pause and resume:
- We are going to add two buttons (pause and resume) and will make it run.
  - I give you the first part of the code... What will you add in order to have a "Resume" button with its feature implemented.

```
var $books = $('#books');  
var $controls = $('<div id="books-controls"></div>');  
$controls.insertAfter($books);  
$('<button>Pause</button>').click(function(event) {  
    event.preventDefault();  
    $books.cycle('pause');  
}).appendTo($controls);
```



## 2. jQuery plugin usage

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A.6.6. Starting from the code from exercise A62. Do the following:

- Find the *funText* jQuery plugin in jQuery plugin registry. Download it.
- Include it in your html file.
- Use funText on your header and also in your links.

### 3. The jQuery UI library

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- While most plugins, such as Cycle, focus on a single task, jQuery UI tackles a wide variety of challenges.
- The jQuery UI team has created a number of core interaction components and widgets to make the web experience more like a desktop application.

# 3. The jQuery UI library

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- Exercise2: Effects (continue with previous exercise 1):
  1. We are going to gradually change an element from white text on a black background to black text on a light gray background:
    - .animate() method is extended to accept additional style properties.

```
$books.hover(function() {  
    $books.find('.title').animate({  
        backgroundColor: '#eee',  
        color: '#000'  
    }, 1000);  
}, function() {  
    $books.find('.title').animate({  
        backgroundColor: '#000',  
        color: '#fff'  
    }, 1000);  
});
```



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2. Previous class methods—.addClass(), .removeClass(), and .toggleClass()—are extended by jQuery UI to take an optional second argument for the animation duration.

```
$('#h1').click(function() {  
    $(this).toggleClass('highlighted', 'slow');  
});
```

3. Easings: easing functions vary acceleration and deceleration curve to provide different results:

```
$('#h1').click(function() {  
    $(this).toggleClass('highlighted', 'slow', 'easeInExpo');  
});
```



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4. Now, Resume button cannot be clicked twice → we are going to reinforce the user that clicking it will not have an effect:

- jQuery UI adds various transitions more complex than the simple sliding and fading animations offered by jQuery itself
- These effects are invoked by calling the **.effect()** method (added by jQuery UI).
- We change the previous code (.cycle action for the Resume) like this:

```
.....
$(<button>Resume</button>').click(function(event) {
    event.preventDefault();
    var $paused = $('ul:paused');
    if ($paused.length) {
        $paused.cycle('resume');
    }
    else {
        $(this).effect('shake', {
            distance: 10
        });
    }
}).appendTo($controls);
```

# 3. The jQuery UI library

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## 5. Interaction components:

- ▣ Set of behaviors that can be combined with custom code to produce complex interactive applications.
- ▣ Example: Resizable

```
// ...  
$books.find('.title').resizable();
```

```
$books.find('.title').resizable({  
  handles: 's'  
});  
// ...
```



What does handles value customized?  
Try both.



# 3. The jQuery UI library

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## 6. Widgets:

- jQuery UI includes a handful of robust user interface widgets

- Button widget: `$('button').button();`

- Button widget comes with a large number of predefined icons that we can employ:

```
.....
$(<button>Resume</button>').click(function(event) {
    event.preventDefault();
    var $paused = $('ul:paused');
    if ($paused.length) {
        $paused.cycle('resume');
    }
    else {
        $(this).effect('shake');
    }
}).button({icons: {primary: 'ui-icon-play'}}).appendTo($controls);
```



# 3. The jQuery UI library

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A.6.7. On your own, apply 'ui-icon-pause' to Pause button.

# 3. The jQuery UI library

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## ■ Slider widget:

- In order to introduce an slider to the page using jQuery UI:

```
$('<div id="slider"></div>').slider({  
  min: 0,  
  max: $('#books li').length - 1  
}).appendTo($controls);
```


- To react to the slider's value change (users change the value manually) → handler to a custom event that is triggered by sliders:

```
$('<div id="slider"></div>').slider({  
  min: 0,  
  max: $('#books li').length - 1,  
  ★ slide: function(event, ui) {  
    $books.cycle(ui.value);  
  }  
}).appendTo($controls);
```

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- Finally, we also need to update the slider widget whenever the slideshow advances to another slide → we can use *Cycle's before callback*, which is triggered before each slide transition:
  - Just introduce the callback function inside the cycle action (previous code):



```
$('#books').cycle({
  timeout: 2000,
  speed: 200,
  pause: true,
  before: function() {
    $('#slider')
      .slider('value', $('#books li').index(this));
  }
});
```

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- Other jQuery UI widgets include Datepicker, Dialog, Tabs, and Accordion. Each widget has several associated options, events, and methods.

# 3. The jQuery UI library

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## 7. jQuery UI ThemeRoller:

- Go to this [link](#)
- jQuery UI ThemeRoller is a webbased interactive theme engine.
- You can choose a predefined one or customize yours.
  - I want you to choose 'UI darkness' from the gallery and download it.
  - Copy jquery-ui.css and the images folder into your project and link to the jquery-ui.css file from your pages

```
<link rel="stylesheet" href="ui-themes/darkness/jquery-ui.css" type="text/css" />
```

# 3. The jQuery UI library

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- As a result:

