

# Objectives

- ◇ In this session, you will learn to:
  - ◇ Explore jQuery
  - ◇ Add visual effects using jQuery
  - ◇ Add visual effects using jQuery

# Exploring jQuery

## ◆ jQuery:

- ◆ Is an open source and cross-browser library of JavaScript codes that was created to make the JavaScript programming simpler.
- ◆ Can be used to enhance the look and feel of a Web page.
- ◆ Bridges the gap between extensive coding and Web designing.

# Manipulating HTML Elements by Using jQuery

- ◇ jQuery can be referred by downloading the light-weight jQuery JavaScript library.
- ◇ Once the library is downloaded, it can be referred to in a Web page using the following syntax:

```
<SCRIPT type="text/javascript"  
src="<path>/jquery-1.8.3.js">  
</SCRIPT>
```

## Manipulating HTML Elements by Using jQuery (Contd.)

◆ jQuery provides the `document.ready()` function for preventing failure of actions that should be performed on an HTML element.

◆ The following syntax is used to specify the `document.ready()` function:

```
<SCRIPT type="text/javascript">  
$(document).ready(function() {  
    // jquery code...  
});  
</SCRIPT>
```

# Manipulating HTML Elements by Using jQuery (Contd.)

## ◆ jQuery selectors:

- ◆ Are used to select and manipulate the HTML.
- ◆ jQuery selectors are used to "find" (or select) HTML elements based on their name, id, classes, types, attributes, values of attributes and much more. It's based on the existing [CSS Selectors](#), and in addition, it has some own custom selectors.
- ◆ All selectors in jQuery start with the dollar sign and parentheses: \$().

## ◆ The element Selector

- ◆ Selects elements based on the element name.

## ◆ The #id Selector

- ◆ Uses the id attribute of an HTML tag to find the specific element.
- ◆ An id should be unique within a page, so you should use the #id selector when you want to find a single, unique element.

## ◆ The .class Selector

- ◆ The jQuery class selector finds elements with a specific class.

# Manipulating HTML Elements by Using jQuery (Contd.)

- ◇ jQuery provides predefined functions to perform modifications on the content of HTML elements.
- ◇ Some of the jQuery predefined functions are:

`html()`

`remove()`

`after()`

`val()`

`empty()`

`append()`

`before()`

`attr()`

`text()`

`prepend()`

# Manipulating HTML Elements by Using jQuery (Contd.)

- ◇ The following embedded Notepad file contains the code for modifying the inner content of HTML elements:



Inner Content

# Handling jQuery Events

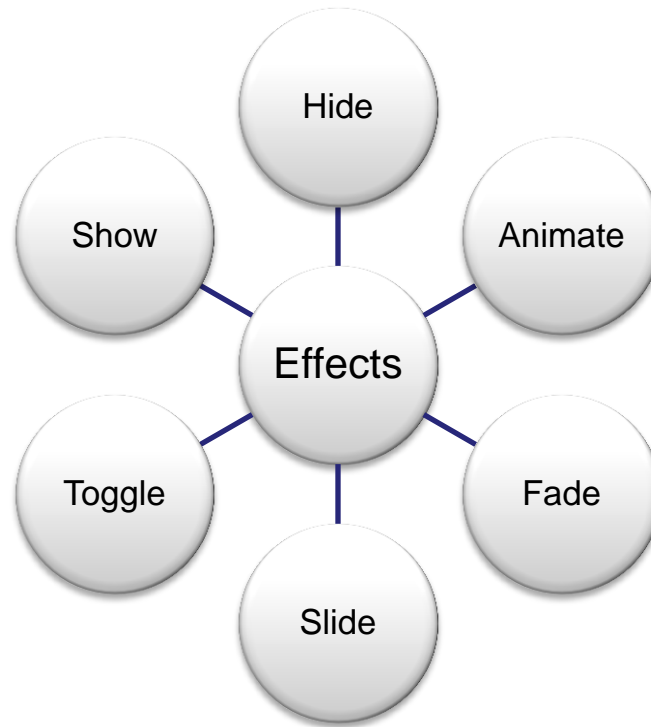
- ◆ In jQuery, events are handled by using the event methods.
- ◆ An event method is used to detect an event and trigger a function when that event occurs.
- ◆ Some of the event methods are:
  - ◆ `$(document).load(function)`
  - ◆ `$(selector).click(function)`
  - ◆ `$(selector).dblclick(function)`
  - ◆ `$(selector).mouseenter(function)`
  - ◆ `$(selector).mouseleave(function)`
  - ◆ `$(selector).keydown(function)`
  - ◆ `$(selector).submit(function)`
  - ◆ `$(selector).focus(function)`
  - ◆ `$(selector).blur(function)`
  - ◆ `$(selector).resize(function)`
  - ◆ `$(selector).unload(function)`
  - ◆ `$(selector).mousedown(function)`
  - ◆ `$(selector).mouseup(function)`



# Adding Visual Effects Using jQuery

## ◇ Visual effects:

- ◇ Help to enrich the browsing experience of a user.
- ◇ Are used to add visual appeal to a Web page.
- ◇ Can be added using the following predefined jQuery effects:



# Implementing Hide Effect

## ◆ The `hide()` function:

- ◆ Is used to make an element disappear when an event occurs.

- ◆ Has the following syntax:

```
$(selector).hide(speed)
```

- ◆ The following embedded Notepad file contains the code to implement the hide effect:



Hide Effect

# Implementing Show Effect

## ◆ The `show()` function:

- ◆ Is used to make a hidden element visible when an event occurs.
- ◆ Has the following syntax:

```
$(selector).show(speed)
```

## ◆ The following embedded Notepad file contains the code to implement the show effect:



Show Effect

# Implementing Toggle Effect

## ◆ The `toggle()` function:

- ◆ Can be used to switch between the show and hide effects of an element.
- ◆ Has the following syntax:

```
$(selector).toggle(speed)
```

- ◆ The following embedded Notepad file contains the code to implement the toggle effect:

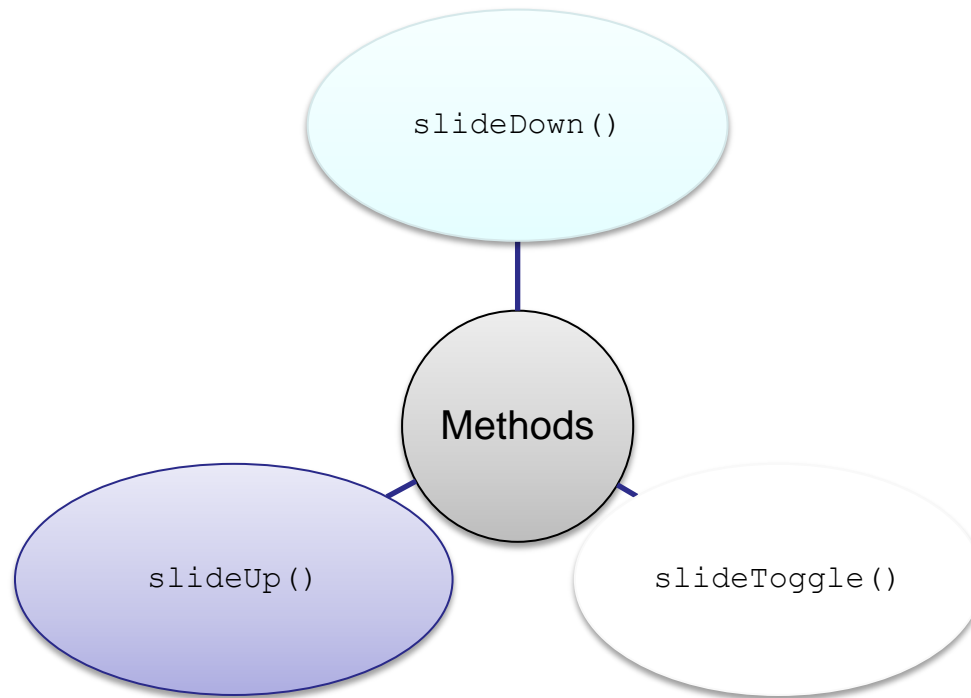


Toggle Effect

# Implementing Slide Effect

## ◆ The slide effect:

- ◆ Can be used to produce a sliding effect on the selected elements.
- ◆ Can be implemented using the following functions:



## Implementing Slide Effect (Contd.)

- ◇ The following embedded Notepad file contains the code to implement the slide effect:

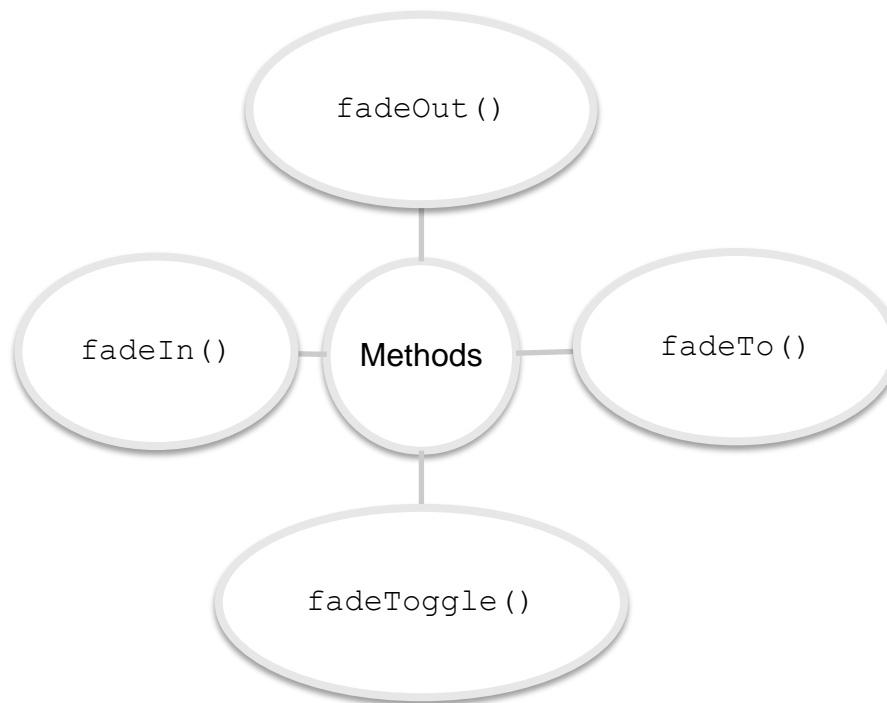


Slide Effect

# Implementing Fade Effect

## ◆ The fade effect:

- ◆ Is used to gradually reduce the opacity of the selected elements.
- ◆ Can be implemented using the following functions:



# Implementing Animate Effect

## ◆ The animate effect:

- ◆ Is used to create custom animations.
- ◆ Is implemented using the `animate()` function having the following syntax:

```
animate({params}, speed, callback);
```

- ## ◆ The following embedded Notepad file contains the code to implement the animate effect:



Animate Effect



# jQuery - Chaining

- With jQuery, you can chain together actions/methods.
- Chaining allows us to run multiple jQuery methods (on the same element) within a single statement.
- There is a technique called chaining, that allows us to run multiple jQuery commands, one after the other, on the same element(s).
- To chain an action, you simply append the action to the previous action.

# jQuery - Chaining

## Example:

```
<!DOCTYPE html>
<html>
<head>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js">
</script>
<script>
$(document).ready(function(){
    $("button").click(function(){
        $("#p1").css("color", "red").slideUp(2000).slideDown(2000);
    });
});
</script>
</head>
<body>

<p id="p1">jQuery is fun!!</p>

<button>Click me</button>

</body>
</html>
```

# jQuery Manipulating CSS

- jQuery has several methods for CSS manipulation.
  - ❖ `addClass()` - Adds one or more classes to the selected elements
  - ❖ `removeClass()` - Removes one or more classes from the selected elements
  - ❖ `toggleClass()` - Toggles between adding/removing classes from the selected elements
  - ❖ `css()` - Sets or returns the style attribute

# jQuery Manipulating CSS

Example:

```
<script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js">
</script>
<script>
$(document).ready(function(){
    $("button").click(function(){
        $("h1, h2, p").addClass("blue");
        $("div").addClass("important");
    });
});
</script>
<style>
.important {
    font-weight: bold;
    font-size: xx-large;
}
.blue {
    color: blue;
}
</style>
</head>
<body>
<h1>Heading 1</h1>
<h2>Heading 2</h2>
<p>This is a paragraph.</p>
<p>This is another paragraph.</p>
<div>This is some important text!</div><br>
<button>Add classes to elements</button>
```

# Demo

- Teacher demo jQuery effects to students

# Summary

- ◆ In this session, you learned that:
  - ◆ jQuery is an open source and cross-browser library of JavaScript codes that was created to make the JavaScript programming simpler.
  - ◆ jQuery can be referred by downloading the light-weight jQuery JavaScript library.
  - ◆ jQuery provides the `document.ready()` function for preventing failure of actions that should be performed on an HTML element.
  - ◆ jQuery selectors are used to select and manipulate the HTML elements.
  - ◆ An event method is used to detect an event and trigger a function when that event occurs.
  - ◆ Visual effects help to enrich the browsing experience of a user.
  - ◆ The `hide()` function is used to make an element disappear when an event occurs.
  - ◆ The `show()` function is used to make a hidden element visible when an event occurs.
  - ◆ The `toggle()` function can be used to switch between the show and hide effects of an element.
  - ◆ The slide effect can be used to produce a sliding effect on the selected elements.