jQuery

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Introduction

- jQuery is a lightweight, "write less, do more", free, open JavaScript library.

- Simplifies the task of creating highly responsive web pages

- jQuery also simplifies a lot of the complicated things from JavaScript, like AJAX calls and DOM manipulation.

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Why jQuery?

- There are lots of other JavaScript libraries out there, but jQuery is probably the most popular, and also the most extendable.

- Many of the biggest companies on the Web use jQuery, such as:

- Google
- Microsoft
- IBM
- Netflix

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Adding jQuery to Your Web Pages

 There are several ways to start using jQuery on your web site. You can:

 Download the jQuery library from jQuery.com

 Include jQuery from a CDN, like Google

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jQuery Syntax

- The jQuery syntax is for selecting HTML elements and performing some action on the element(s).

Basic syntax is: $('selector').action()

- A $ sign to define/access jQuery
- A (selector) to "query (or find)" HTML elements
- A jQuery action() to be performed on the element(s)

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Basic selectors

- TagName

  document.getElementsByTagName("tagName");

  $("tagName") - $("div"), $("p"), $("div"),.....

- Tag ID

  document.getElementById("id");

  $("#id") - $("#name"), $("#address")

  #id selector when you want to find a single, unique element.

- Tag Class

  document.getElementsByClassName("className");

  $(".className") - $(".comment"), $(".code")

  .class selector finds elements with a specific class.

- To select all elements - $("*")

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JavaScript vs jQuery

- Example 1 - Hide an element with id "textbox"

```
//javascript
document.getElementById('textbox').style.display = "none";

//jQuery
$('#textbox').hide();
```

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Introduce a jQuery function

```
$(document).ready(function(){
    //Script goes here
});
```

➡ OR shorter method

```
$(function(){
    //Script goes here
});
```

This is to prevent any jQuery code from running before the document is finished loading (is ready).

jQuery Event Methods

- All the different visitors' actions that a web page can respond to are called events.

- An event represents the precise moment when something happens

Mouse Events	Keyboard Events	Form Events	Document/Window Events
click	keypress	submit	load
dblclick	keydown	change	resize
mouseenter	keyup	focus	scroll
mouseleave		blur	unload

jQuery Event Methods

➡ Most DOM events have an equivalent jQuery method. For example

```
$("p").click(function(){
  // action goes here!!
});
```

The on() Method

➡ The on() method attaches one or more event handlers for the selected elements.

```
$("p").on({
  mouseenter: function(){
    $(this).css("background-color", "lightgray");
  },
  click: function(){
    $(this).css("background-color", "yellow");
  }
});
```

JQuery effect

JQuery effect:

- Hide and Show,
- Toggle
- Fade
- Slide
- Animate

JQuery effect- hide and show

➥ With jQuery, you can hide and show HTML elements with the hide() and show() methods

$(*selector*).hide(*speed, callback*);

$(*selector*).show(*speed, callback*);

The optional speed parameter specifies the speed of the hiding/showing, and can take the following values: "slow", "fast", or milliseconds.

The optional callback parameter is a function to be executed after the hide() or show() method completes

JQuery effect- toggle

- You can also toggle between hiding and showing an element with the toggle() method.

- Shown elements are hidden and hidden elements are shown

  $(*selector*).toggle(*speed,callback*);

jQuery HTML

- One very important part of jQuery is the possibility to manipulate the DOM.

Get/set Content - text(), html(), and val()

- text() - Sets or returns the text content of selected elements
- html() - Sets or returns the content of selected elements (including HTML markup)
- val() - Sets or returns the value of form fields

Get/set Attributes - attr()

The jQuery attr() method is used to get/set attribute values.

jQuery HTML

jQuery Add New HTML Content

- append() - Inserts content at the end of the selected elements

- prepend() - Inserts content at the beginning of the selected elements

- after() - Inserts content after the selected elements

- before() - Inserts content before the selected elements

jQuery - Remove Elements

- remove() - Removes the selected element (and its child elements)

- empty() - Removes the child elements from the selected element

jQuery Manipulating CSS

- 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 AJAX

- AJAX is the art of exchanging data with a server, and updating parts of a web page - without reloading the whole page.

- jQuery provides several methods for AJAX functionality.

- With the jQuery AJAX methods, you can request text, HTML, XML, or JSON from a remote server using both HTTP Get and HTTP Post - And you can load the external data directly into the selected HTML elements of your web page!

- jQuery load() Method

$(*selector*).load(*URL, data, callback*);

jQuery - AJAX get() and post() Methods

➡ GET is basically used for just getting (retrieving) some data from the server.

```
$.get(URL, callback);
```

➡ POST can also be used to get some data from the server. However, the POST method is often used to send data along with the request.

```
$.post(URL, data, callback);
```

JQuery Widgets

- a jQuery UI widget is a specialized jQuery plug-in.
- Using plug-in, we can apply behaviors to the elements.
- For example:
  - Accordion: Enable to collapse the content, that is broken into logical sections
  - Autocomplete: Enable to provides the suggestions while you type into the field.
  - Datepicker: It is to open an interactive calendar in a small overlay.
  - Progressbar: It shows the progress information.
  - Tabs: It is used to swap between content that is broken into logical sections.

JQuery Interactions

➤ Interactions can add basic mouse-based behaviors to any element.

➤ Using interactions, We can create sortable lists, resizable elements, drag & drop behaviors.

Hm…done with coding ☺