jQuery
Week 8 Session1

01/05/202
4

Contents of This session

- Jquery
  - How to use
  - Syntax
  - Selector
  - Event
  - Effect

What is jQuery

jQuery is a fast, small, and feature-rich JavaScript library. It makes things like HTML document traversal and manipulation, event handling, animation, and Ajax much simpler with an easy-to-use API that works across a multitude of browsers. With a combination of versatility and extensibility, jQuery has changed the way that millions of people write JavaScript.
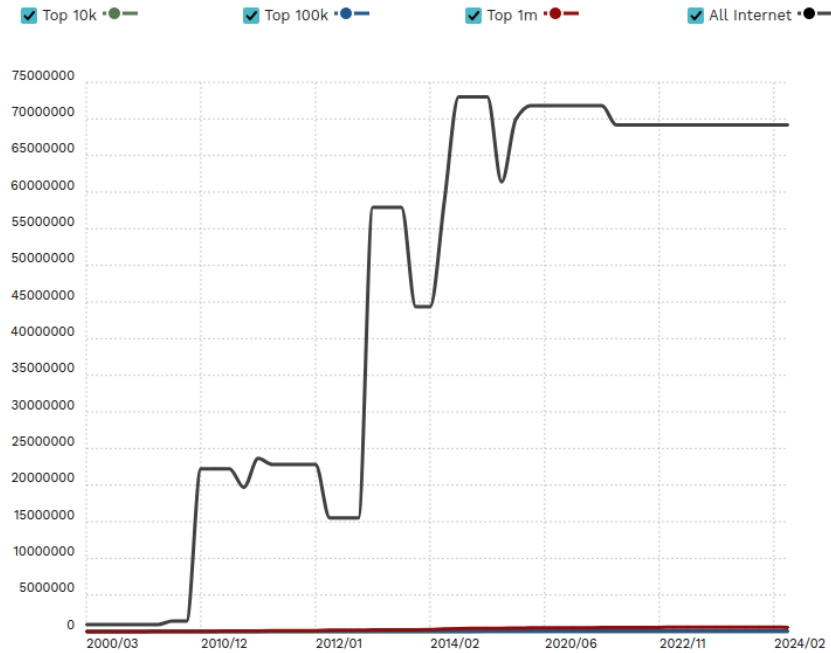
- John Resig, Creator of jQuery

01/05/2024

What is jQuery

▶ The jQuery library contains the following features:

  ▶ HTML/DOM manipulation

  ▶ CSS manipulation

  ▶ HTML event methods

  ▶ Effects and animations

  ▶ AJAX

  ▶ Utilities

01/05/202
4

Utilisation

jQuery Usage Statistics

- The most popular JavaScript library on the entire internet

- Used on over 151 million websites
  - ˜ React = 13.6 million

- 63% of Top 1m websites use jQuery

- Popularity began in 2010

- Version 4 currently in beta

01/05/202
4

Get Started to use jQuery

▶ There are several ways to start using jQuery on your web site. You can: Download the jQuery library from https://releases.jquery.com/jquery/

```
<script src="jquery-3.7.1.min.js"></script>
```

▶ Include jQuery from a CDN
```
<script
    src="https://code.jquery.com/jquery-3.7.1.min.js"
    integrity="sha256-/JqT3SQfawRcv/BIHPThkBvs0OEvtFFmqPF/lYI/Cxo="
    crossorigin="anonymous">
</script>
```

Accessing jQuery in Code

▶ Using jQuery requires calling the jQuery API object:
  ˜ jQuery()

▶ OR you can call the alias:
  ˜ $()

```
// jQuery API accessor
jQuery();
// Same as
$();
```

01/05/202
4

jQuery Syntax

▶ The jQuery syntax is tailor made 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

　　▶ ('#id', '.class' or 'tagname')

▶ A jQuery action() to be performed on the element(s)

jQuery vs Vanilla JS

▶ Accessing and reading content of an element:

▶ JavaScript:
  ˜ document.getElementById('myId').innerHTML

▶ jQuery:
  ˜ $('myId').html()

01/05/2024

jQuery Syntax

▶ It is good practice to wait for the document to be fully loaded and ready

▶ This also allows you to have your JavaScript code in the head section or external js file

```
$(document).ready(function(){

    // code to run on ready event

});
```

jQuery Selectors

▶ jQuery selectors allow you to select and manipulate HTML element(s)

▶ element Selector

$("p")

▶ #id Selector

$("#test")

▶ .class Selector

$(".test")

.separator

$("#txt1").val("Hello jquery");

$ Sign denotes
jQuery function

Select the
HTML element

Perform action on
selected element

More example of selector

http://
www.w3schools.com/
jquery/jquery_selectors.asp

01/05/2024

jQuery Selection Example

- Vanilla JS

```
let checkedValue;
let elements = document.getElementsByTagName('input');
for (let i = 0; i < elements.length; i++) {
    if (elements[i].type === 'radio' &&
        elements[i].name === 'some-radio-group' &&
        elements[i].checked) {
      checkedValue = elements[i].value;
      break;
    }
}
```

- jQuery

```
let checkedValue = jQuery('input:radio[name="some-radio-group"]:checked').val();
```

01/05/202
4

jQuery in Action (2015), Chapter 1

jQuery Event

▶ These are common events in browsers

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

The table shows common events in browsers

jQuery Event

Method	Description
click()	The function is executed when the user clicks on the HTML element
dblclick()	The function is executed when the user double-clicks on the HTML element
mouseenter()	The function is executed when the mouse pointer enters the HTML element
mouseleave()	The function is executed when the mouse pointer leaves the HTML element
hover()	The hover() method takes two functions and is a combination of the mouseenter() and mouseleave() methods
$(document).ready()	allows us to execute a function when the document is fully loaded

More jQuery Event
http://
www.w3schools.com/
jquery/
jquery_ref_events.asp

jQuery Event

▶ Example

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


$("p").click(function(){
        $(this).hide();
});
```

When P elements are clicked, they will be hidden.

01/05/202
4

jQuery Effects - Hide and Show

► Hide effect

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

► Show effect

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

► Toggle effect

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

► The optional speed parameter specifies the speed of the hiding/showing("slow", "fast", or milliseconds)

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

jQuery Effects - Fade In and Out

▶ Fade In effect

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

▶ Fade out effect

▶ $(*selector*).fadeOut(*speed*,*callback*);

▶ Fade Toggle effect

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

▶ Fade To effect

▶ $(*selector*).fadeTo(*speed*,*opacity*,*callback*);

01/05/202
4

Exercise

- jQuery Exercises part 1

01/05/2024

End of The Session 1
Week 8