CST 366 - Internet Programming

Spring 2020 - Week 3.2

jQuery

Due Date

- Lab 3 due on Sunday 2/16 @ 11:59 PM PST

- Assignment 2 due on Sunday 2/23 @ 11:59PM PST

What is jQuery?

jQuery is a DOM manipulation library

It comes with a bunch of useful methods to things like:

- Select Elements
- Manipulate Elements
- Create Elements
- Add Event Listeners
- Animate Elements
- Add Effects
- Make HTTP Requests(AJAX)

Adding jQuery

Download jQuery and link to it locally:

```
<script type="text/javascript" src="jquery.js"></script>
```

OR

Link to a CDN(a hosted copy)

```
<script type="text/javascript" src="https://code.jquery.com/jquery-2.1.4.js"></script>
```

How does jQuery look like?

For example, you want to fade out all images and change the background color after clicking on a button

```
// when a user clicks the button with id 'trigger'
var trigger = document.getElementById('trigger');
trigger.addEventListener('click', function(){

    // change the body's background to yellow
    var body = document.getElementByTagName('body');
    body.style.background = 'yellow';

    // fade out all images over 3 seconds
    var images = document.querySelectorAll('img');
    images.forEach(function(img){
        // a set of css rules here to fade out an image
        // ...
    });

});
```

How does jQuery look like?

For example, you want to fade out all images and change the background color after clicking on a button

```
// when a user clicks the button with id 'trigger'
var trigger = document.getElementById('trigger');
trigger.addEventListener('click', function(){

    // change the body's background to yellow
    var body = document.getElementByTagName('body');
    body.style.background = 'yellow';

    // fade out all images over 3 seconds
    var images = document.querySelectorAll('img');
    images.forEach(function(img){
        // a set of css rules here to fade out an image
        // ...
    });

});
```

```
//when a user clicks the button with id 'trigger'
$('#trigger').click(function(){

    //change the body's background to yellow
    $('body').css("background", "yellow");

     ///fade out all img's over 3 seconds
    $('img').fadeOut(3000, function() {

        //remove imgs from page when fadeOut is done
        $(this).remove();
    });
});
```

jQuery selectors

- Selecting with jQuery is very similar to querySelectorAll()

- We provide a CSS style selector and jQuery will return all matching events

$("selectorGoesHere")

We **select** and then manipulate

```
//to select all img tags
$("img")

//to select all elements with class 'sale'
$(".sale")

//to select element with id "bonus"
$("#bonus")

//to select all a tags inside of li's
$("li a")
```

jQuery selectors

- Manipulating CSS style with jQuery

.css(property, value)

We **select** and then manipulate

```
//select elem with id "special" and give it a border
$("#special").css("border", "2px solid red");


//we can also pass in an object with styles
 var styles = {
    backgroundColor : "pink",
    fontWeight: "bold"
 };

$("#special").css(styles);
```

jQuery events

Click()

jQuery's *click()* method is a quick and easy way to add a click listener to element(s)

```
//prints when item with id 'submit' is clicked
$('#submit').click(function(){
  console.log("Another click");
});

//alerts when ANY button is clicked
$('button').click(function(){
  alert("Someone clicked a button");
});
```

jQuery events

keypress()

jQuery's *keypress()* method is a quick and easy
way to add a keypress listener to element(s)

```
//listen for any keypress in any text input
$('input[type="text"').keypress(function(){
  alert("text input keypress!");
});
```

jQuery events

on()

jQuery's *on()* works similarly to *addEventListener*.
It lets you specify the type of event to listen for.

```javascript
//prints when item with id 'submit' is clicked
$('#submit').on('click', function(){
  console.log("Another click");
});

//alerts when ANY button is clicked
$('button').on('click', function(){
  console.log("button clicked!");
});
```

jQuery events

on()

It's not just for click events. *on()* supports all types of events

```
//double click event
$('button').on('dblclick', function(){
  alert("DOUBLE CLICKED!");
});

//drag start event
$('a').on('dragstart', function(){
  console.log("DRAG STARTED!");
});

//keypress event
$('input[type="text"').on('keypress', function(){
  alert("key press in an input!")
});
```

jQuery selectors

Use the following starter HTML:

```html
<div>Div 1</div>
<div class="highlight">Div 2</div>
<div id="third">Div 3</div>
<div class="highlight">Div 4</div>
```

- Correctly include jQuery
- Select all divs and give them a purple background
- Select the divs with *class* "highlight" and make them 200px wide
- Select the div with *id* "third" and give it a orange border