

# jQuery

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Use the left and right arrow keys to look through slides!

# What is jQuery?

# Background

- Created in **January 2006**
- The most widely used Javascript library
- Over 19.6 million websites use it
- Its usage is **still increasing**
- It has a **foundation** and **13 board members**

# Why use it?

- Lightweight: only 32KB
- Lets you implement things that were unfeasible
- Simplifies implementing things that were annoying
- All the cool kids are doing it

# How to install it?

Download the file from [jquery.com](http://jquery.com), add it to your web directory, and include

```
<script type="text/javascript" src="jquery-1.8.2.min.js"></script>
```

or link to Google's hosted version of it

```
<script type="text/javascript"  
  src="http://ajax.googleapis.com/ajax/libs/jquery/1.8.2/jquery.min.js"></script>
```

or link to jQuery's own latest version  
(not recommended due to possible backwards compatibility issues)

```
<script type="text/javascript"  
  src="http://code.jquery.com/jquery-latest.min.js"></script>
```

# Selectors

**Documentation**

# Selectors

- Allow you to select HTML elements on a page
- Then you can manipulate these elements using jQuery functions
  - Change HTML
  - Change CSS
  - Animate
  - Add functions that activate on certain events
- Huge number of ways to select elements

# Basic Selectors

## Element Selector

```
$("#div")
```

## ID Selector

```
$("#someId")  
$("#div#someId")
```

## Class Selector

```
$(".someClass")
```

## Descendant Selector

```
$(".someClass a")
```

## Multiple Selector

```
$("#p, div, li")
```

## Not Selector

```
$("#div"):not(".someClass")
```

# Advanced Selectors

## Image Selector

```
$("#div"):image
```

## Even/Odd Selectors

```
("#someId"):even
```

## Attribute Equals Selector

```
$('input[name=something]')
```

## Attribute Contains Selector

```
$('input[name*="pass"]')
```

And many more!

# DOM Manipulation

**Documentation**

# Examples: Selection and Manipulation

You can copy/paste and run this code in your Javascript console! Refresh to reset the page!

How to open console: [Chrome](#), [Firefox](#), [Safari](#)

## Append/Prepend

```
var html = "<p>Some new text</p>";  
$("#appendId").append(html);  
$("#appendId").prepend(html);
```

## Change Classes

```
$("#classId").addClass("ftw");  
$("#classId").removeClass("ftw");
```

## Remove

```
$("#div").remove();
```

## Overwrite

```
$("#p").text("testing");
```

## Retrieve Information

```
$("#input[type='text']").val();
```

## Modify CSS

```
$("#body").css("color", "red");
```

# Effects

**Documentation**

# Common Effects

## Show and Hide

```
$("#showHideId").hide();  
$("#showHideId").show();
```

## Slide Up and Down

```
$("#slideId").slideUp();  
$("#slideId").slideDown();
```

## Fade

```
$("#fadeId").fadeOut();  
$("#fadeId").fadeIn();  
$("#fadeId").fadeTo('slow', .5);
```

## Toggles

```
var div = $("#toggleId");  
div.toggle();  
div.slideToggle();  
div.fadeToggle();
```

## Chained Effects

```
$("#chainId").fadeOut().slideDown()  
.hide().fadeIn("fast");
```

And more! Check out **animate()** and **queue()** to create your own animation functions.

# Events

**Documentation**

So far, we've only executed jQuery by running it in the console.  
How do we actually use it on a webpage?

This doesn't work yet: check the index.html file for a detailed TODO.  
Click [here](#) for the html file with this task completed.



Hide/show the box!

# Events

I've already created a function called "action" that toggles the box below. Try running each of these lines of code in the console to see how each event works.



## Click and Double-click

```
$("#clickId").click(action);  
$("#clickId").dblclick(action);
```

## Keyboard Input

```
$("#keyId").keydown(action);  
$("#keyId").keyup(action);  
$("#keyId").keypress(action);
```

## Mouse Actions

```
$("#mouseId").hover(action);  
$("#mouseId").mouseenter(action);  
$("#mouseId").mousemove(action);
```

# AJAX

## Documentation

# What is AJAX?

- Asynchronous Javascript And XML
- Allows us to send HTTP requests without reloading the page
- Can use either **GET** or **POST**
- Can query APIs, check login information, etc.

# GET Requests and APIs: What's for **lunch** today?

This also isn't implemented yet. The solution is in [this](#) file.



Find out!

# POST Requests

A snippet of actual code from my project last year:

```
SubmitInput.click(function(){
  $.post("login.php", {password:PassInput.val()}, function(data){
    // if password is incorrect, display error
    if (!data)
    {
      ErrorDiv.html("Incorrect password!");
      ErrorDiv.slideDown("fast");
    }
    // if correct, load admin portal
    else
      loadAdmin();
  }, "json");
});
```

This is an example of how you can use `$.post` to easily send requests to the server and update the webpage without having to reload!

# Thank you!