

The background is a dark grey chalkboard with various white chalk sketches. On the left, there's a globe showing continents. Above it are some circular diagrams and a book. On the right, there's a microscope and some other technical drawings. The overall theme is educational and technical.

# jQuery Fundamentals

By High School Technology Services [myhsts.org](http://myhsts.org)

# Recap From Previous Session

In previous session we covered some CSS3 properties. We covered –

- Using `@font-face` to Add Custom Fonts
- Changing the Opacity of Text and Images
- Creating Rounded Corners, Adding Shadows to Boxes, and Using Images as Borders
- Creating Multiple Columns for Laying Out Text
- Working with RGBA and HSL Color Models
- Creating Simple Animations Using transitions, transform, and animation

# Overview of jQuery

- jQuery is a lightweight, "write less, do more", JavaScript library.
- The purpose of jQuery is to make it much easier to use JavaScript on your website.
- jQuery takes a lot of common tasks that require many lines of JavaScript code to accomplish, and wraps them into methods that you can call with a single line of code.
- jQuery also simplifies a lot of the complicated things from JavaScript, like AJAX calls and DOM manipulation.
- The jQuery library contains the following features:
  - HTML/DOM manipulation
  - CSS manipulation
  - HTML event methods
  - Effects and animations
  - AJAX
  - Utilities

# Downloading and Using jQuery library

Download the jQuery library from [jquery.com](http://jquery.com). Include jQuery from a CDN, like Google etc.

- Downloading jQuery - There are two versions of jQuery available for downloading:
  - Production version - this is for your live website because it has been minified and compressed
  - Development version - this is for testing and development (uncompressed and readable code)
  - Both versions can be downloaded from [jquery.com](http://jquery.com).
  - The jQuery library is a single JavaScript file, and you reference it with the HTML `<script>` tag
  - E.g. -

```
<head>  
<script src="jquery-3.2.1.min.js"></script>  
</head>
```

# Benefits of Using jQuery

- One of the primary benefits of jQuery—a benefit shared with some other JavaScript libraries—is that it seamlessly handles cross-browser issues. JavaScript implementations differ among browsers to varying degrees, and it can cause a developer to prematurely and severely age to get everything working across browsers with JavaScript.
- jQuery uses a simple, clean, powerful syntax that makes it easy to select the DOM elements on the page you want to change with JavaScript and allow you to chain actions and effects together for efficient code. It is quite common to replace a dozen or more lines of JavaScript with a single line of jQuery code. jQuery uses the CSS (Cascading Style Sheets) version 3 selector specification for selecting elements, so you don't have to learn a different syntax to use jQuery.
- jQuery is highly extensible. As mentioned earlier, the core jQuery library is kept tight and focused, keeping out non-essential features. It also provides a plugin framework that makes it easy to extend jQuery, and there are both official jQuery plugins as well as thousands from third parties. This way your page has to download only the specific set of features it needs. Any time you need a feature not included in the core jQuery library, there is a good chance that someone has already written a plugin that does what you need.

# Uses of the jQuery function

- The jQuery library provides the jQuery function, which lets you select elements using CSS selectors.

E.g. - `var listItems = jQuery( 'li' );`

The jQuery function can also be denoted by “\$”. Valid names in JavaScript can be pretty much anything, as long as they don't begin with a number and don't include a hyphen. So, the \$ in the code above is just a shorter, more convenient name for the jQuery function.

E.g. – Ensuring that the page state is ready

```
$( document ).ready(function() {  
    console.log( 'ready!' );  
});
```

# Follow-up Courses

Congratulations on completing this course! We recommend you check out our follow-up courses to pursue your web development career –

- [Advance JavaScript, jQuery Using JSON and Ajax](#)
- [Node.JS Coding with Hands-on Training](#)
- [Cross-platform Native App Development Using HTML5, CSS3 and JavaScript](#)

The background is a dark green chalkboard with various white chalk sketches. On the left, there is a globe showing continents. Above it are several books and a pair of compasses. On the right, there is a detailed drawing of a microscope. Other faint sketches include a ruler, a pencil, and some geometric shapes.

# Thank You.

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