

JavaScript / jQuery Seminars

The following is a list of JavaScript and jQuery seminars that can be presented at your user group or other live event by **Paul D. Sheriff**.

Creating REST API's with JavaScript, Node.js and Express

If you want to create a web service to serve up a set of REST API's, and, you want to use all JavaScript, this is the seminar to attend. You will learn step-by-step to setup node.js and an express server and create a set of REST API's to get, post, put, patch, and delete. You learn to handle exceptions and to wrap up return values in a standard JSON envelope. In addition, you see how to call these REST API's from JavaScript using the XMLHttpRequest object.

Learning Objectives

- Setup node and express

- Create CRUD REST API's

- Handle exceptions

- Call API's using the XMLHttpRequest object

Creating a Website with JavaScript, Node.js and Express

A complete website can be created with JavaScript using Node and the Express Generator tool. These tools give you a starting point from which to build the rest of your site. In this seminar you build a set of pages using a JSON data and templating/view engine such as handlebars.

Learning Objectives

- Setup node and express
- Using the Express Generator
- Using Handlebars
- Build data-driven web pages

Essentials of JavaScript and jQuery

The de-facto standard language for programming web pages is JavaScript. If you are new to JavaScript and jQuery, this seminar is for you. You will be introduced to both JavaScript and the jQuery library. You learn to create functions, declare and use variables, interact with, and manipulate, elements on web pages using both JavaScript and jQuery.

Learning Objectives

- Creating functions and variables
- Manipulate web page elements
- Responding to events

Cool APIs in JavaScript

HTML5 and ES6 have added a lot more APIs to the native JavaScript language. All you need is a modern browser. In this seminar you learn to use drag and

drop, storing data in seminar and local storage, playing video and audio, interacting with the webcam on your computer. In addition, you learn about geolocation and how to combine this with google maps.

Learning Objectives

Drag and Drop

Web Storage

Geolocation and Google maps

Asynchronous Programming in JavaScript

Promises and `async/await` is the modern method of asynchronous programming in JavaScript. In this seminar you see a comparison and contrast between callbacks and promises. You also learn to use the `async` and `await` keywords to make working with promises much easier. If you have not worked with promises yet, this seminar is for you as this takes you from beginning to intermediate promise usage.

Learning Objectives

Callbacks

Promises

Async and await

Upload Multiple Files Asynchronously

In this seminar you learn how to use jQuery, JavaScript, Ajax and a Web API method to upload multiple files asynchronously. As each file is uploaded, a progress bar is displayed to indicate the progress for each file. In order to accomplish this, you learn to clone an HTML template for each file selected to upload. You also learn to upload additional data with each file. Yes, you can find free, open-source libraries to help you do this, but it is always good to know how these things work under the hood.

Learning Objectives

- Select multiple files to upload
- Pass data for each file
- Create progress bar for each file uploaded

Apply SPA Techniques to JavaScript Applications

There are many frameworks such as Angular and React that help you develop client-side applications in a very structured manner. They help you create Single Page Applications (SPA) where each page, and the logic for each page are created separately. The purpose of this seminar is not to replace these frameworks, but to show you how to use these same techniques using JavaScript and jQuery. You may have a huge investment in JavaScript and jQuery and can't, or maybe don't want to, convert to these new frameworks. However, you do want to create a SPA and have a nice structured approach to development using JavaScript and jQuery. In this seminar I present a method to create a SPA using HTML, Bootstrap and jQuery and how to structure your application files.

Learning Objectives

- How to load partial HTML pages
- Add custom CSS and JavaScript to partial pages
- Handle the back button and the window title
- Create a CRUD page

Cool Things JavaScript and jQuery Can Do

There is almost no end to what you can accomplish with JavaScript and jQuery. You can detect if your user online or offline, check the device orientation, copy text to a clipboard, copy HTML, switch stylesheets, scroll content, make columns equal height, and detect if your page is the current visible tab in the browser. With just a few lines of JavaScript and jQuery you can accomplish all

these things and much more. This seminar presents tons of examples of how to use JavaScript/jQuery to make your web pages look professional.

Learning Objectives

Events you didn't know existed

Cool APIs to make your page responsive

Dynamically modify your web pages

Improve your Web Pages using Closures and Templating

Many client-side developers struggle with how to use closures. The best way to learn is to take a simple page that does not have closures and convert it to use them. This seminar then presents how to use the mustache.js templating library. This library helps you separate your JavaScript/jQuery code from your HTML when building dynamic pages. Using both techniques together makes creating a CRUD page easy.

Learning Objectives

Learn the basics of closures

Use mustache.js to simplify jQuery code

A CRUD page using jQuery and mustache

Calling a Web API using Ajax

Many web developers tend to do a lot of post backs because they are more comfortable in C# than with JavaScript and jQuery. However, with just a little JavaScript, jQuery and good use of JSON from a Web API you can eliminate a lot of round trips and thus increase the performance of your web pages. This seminar will show you how to work with JSON objects to create an add, edit, and delete page. Web API calls are used to retrieve and modify the data. This seminar uses HTML, JavaScript, and jQuery to illustrate working more on the client-side.

Learning Objectives

Retrieve data using Ajax

Posting data using Ajax

Working with Google's Map API

If you want to add an embedded map on your website, the Google's Map API is a great option. Add geocode location services to your web site helps your users locate your company or services. Learn how to search for an address, add directions to your company complete with text. Learn to use free mapping services. Place a boundary around an address and learn to detect if an address is within this boundary. All these features and more are explored in this seminar.

Learning Objectives

Display latitude and longitude on a map

Geocode, search for address

Get directions to a location

Reverse geocode latitude and longitude to an Address

Create boundary around address (geofence)