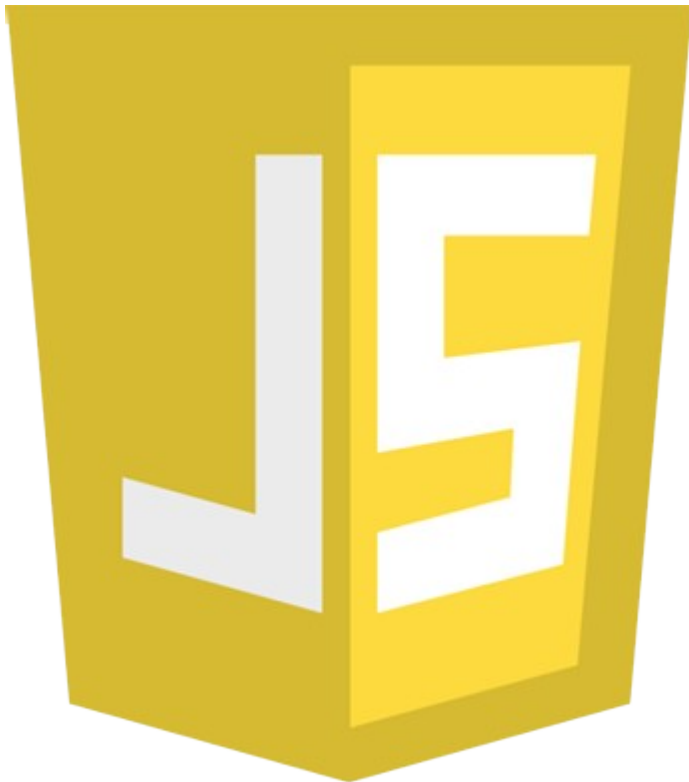


HANDS-ON TRAINING

JAVASCRIPT



&

JQUERY



By Ali Imran



Javascript Training (*topics*)

Introduction
Basic concepts
Control structures
Functions
Data types
 Number
 Array
 Object
 String
 Boolean
 Undefined

Decision making
 If-else
 Switch-case
 Ternary

Day 1

+ Hands-on training
+ Assignment after session

String manipulation
Form validation
Timers
JSON data
Error handling

Day 2

+ Hands-on training
+ Assignment after session

Project

...

+ 2 weeks

jQuery Training (*topics*)

Introduction

Why jQuery

Initializations, inclusion, and CDN's

Selectors, relationship with CSS

DOM manipulation (*additional features*)



Day 1

+ Hands-on training

+ Assignment after session

Form controls and properties

Custom attributes and data-binding

HTTP get / post implementation

AJAX



Day 2

+ Hands-on training

+ Assignment after session

Project



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+ 1 week

Javascript Training (*details*)

Introduction

JavaScript is a programming language that can be included on web pages to make them more interactive. You can use it to check or modify the contents of forms, change images, open new windows and write dynamic page content. You can even use it with CSS to make DHTML (Dynamic HyperText Markup Language). This allows you to make parts of your web pages appear or disappear or move around on the page. JavaScripts only execute on the page(s) that are on your browser window at any set time. When the user stops viewing that page, any scripts that were running on it are immediately stopped. The only exceptions are cookies or various client side storage APIs, which can be used by many pages to store and pass information between them, even after the pages have been closed.

Basic concepts

JavaScript is a rich and expressive language in its own right. This section covers the basic concepts of JavaScript, as well as some frequent pitfalls for people who have not used JavaScript before. While it will be of particular value to people with no programming experience, even people who have used other programming languages may benefit from learning about some of the peculiarities of JavaScript.

Control structures, Operators, Decision making

In this part of training we will explore the control structures in javascript. i.e. If-else, loops (*for*, *while*, *do-while*), switch etc.

Functions

Learning coding of basic functions and arguments. Advanced use of functions. Functions objects to apply OOP in javascript. Functions contain blocks of code that need to be executed repeatedly. Functions can take zero or more arguments, and can optionally return a value.

Data types

String	A string of text. To signify that the variable is a string, you should enclose it in quote marks.	<code>var myVariable = 'Bob';</code>
Number	A number. Numbers don't have quotes around them.	<code>var myVariable = 10;</code>
Boolean	A True/False value. The words true and false are special keywords in JS, and don't need quotes.	<code>var myVariable = true;</code>
Array	A structure that allows you to store multiple values in one single reference.	<code>var myVariable = [1, 'Bob', 'Steve', 10];</code> Refer to each member of the array like this: <code>myVariable[0], myVariable[1], etc.</code>
Object	Basically, anything. Everything in JavaScript is an object, and can be stored in a variable. Keep this in mind as you learn.	<code>var myVariable = document.querySelector('h1');</code> All of the above examples too.

String manipulation

Form validation

Using javascript to validate user input in HTML forms.

Timers

Setting interval to execute a piece of code periodically

JSON data

JavaScript Object Notation is a lightweight data-interchange format. It is easy for humans to read and write. It is easy for machines to parse and generate.

Error handling

In this topic we will cover handling of invalid data types, catching uncaught exceptions, building reporting mechanism.

jQuery Training (*details*)

Introduction

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, CSS manipulation, HTML event methods, Effects and animations, AJAX.

Why jQuery

There are lots of other JavaScript frameworks out there, but jQuery seems to be the most popular, and also the most extendable. Many of the biggest companies on the Web use jQuery, such as:

- Google
- Microsoft
- IBM
- Netflix

Initializations, inclusion, and CDN's

Basics of including jQuery within HTML, multilevel initializations, and advantage of using Content Delivery Networks.

Selectors, relationship with CSS

Basics of CSS and all about selectors (id's / classes / tag names / attribute based / expressions)

DOM manipulation (*additional features*)

Manipulating elements within HTML at run-time, manipulating their CSS properties and attributes.

Form controls and properties

Validating HTML forms' inputs and manipulating them post/pre submission and notifications / warnings.

Custom attributes and data-binding

Advantages of using user-data attributes. Implementation of data-* (*custom*) attributes to bind user data with HTML elements

HTTP get / post implementation

Http methods in detail. Hands-on training of sending data to server scripts using Get and POST methods. We will also talk about PUT and DELETE methods and their application (*briefly*).

AJAX

Asynchronous JavaScript and XML – Implementation of HTTP requests using AJAX. Simplicity, level of ease, features, and bound event handlers.

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