JavaScript – Advanced

Description

This course is intended to take an basic or intermediate JavaScript developer and give him the knowledge he needs to create a cross-browser JavaScript library, from the ground, up. He will explore specific techniques, strategies, and solutions to developing robust, cross-browser, JavaScript code.

Course Content

Module 1: Advanced Concepts for Objects and Functions

- Lesson 1: Functions are Objects
- Lesson 2: First Class Functions
- Lesson 3: Invoking Functions
- Lesson 4: Creating JavaScript Objects
- Lesson 5: Understanding this
- Lesson 6: Examining this with Normal Function Invocation
- Lesson 7: Normal Function Invocation Using strict mode
- Lesson 8: Examining this with Method Invocation
- Lesson 9: Understanding Prototypes
- Lesson 10: Understanding the Prototype of Functions
- Lesson 11: Using call and apply Function Methods
- Lesson 12: Invoking Functions as Constructors: The Magic of new
- Lesson 13: Constructor Invocation and the Value of this
- Lesson 14: Higher Order Functions, Callbacks and the Problem with this
- Lesson 15: Arrow Functions

Module 2: Think Like a Programmer: DRY Coding

- Lesson 1: Abstraction and DRY Coding

Module 3: Working with Objects

- Lesson 1: Working with Objects Introduction
- Lesson 2: Detecting Properties on Objects
- Lesson 3: Changing Property Attributes
- Lesson 4: Making Objects Immutable
- Lesson 5: ES6 Object Features

Module 4: The Power of Functions

- Lesson 1: The Power of Functions Introduction
- Lesson 2: Immediately Invoked Function Expressions (IIFEs)
- Lesson 3: Understanding Closure
- Lesson 4: Avoiding Global Variables
- Lesson 5: Using the Namespace Pattern

Module 5: Think Like a Programmer: The Module Pattern

- Lesson 1: The Module Pattern Part 1
- Lesson 2: The Module Pattern: Part 2

- Lesson 3: The Module Pattern: Part 3
- Lesson 4: The Module Pattern: Part 4

Module 6: Working with Data: JavaScript Objects and JSON

- Lesson 1: Introduction to Working with Data
- Lesson 2: JSON Basics
- Lesson 3: Creating a JSON File
- Lesson 4: Loading a JSON File Using XMLHttpRequest
- Lesson 5: Testing on a Server

Lab / Exercises

- During the course participants are encouraged to actively participate in the learning experience by running example files during lectures and performing coding challenges during labs
- Each lab session allows you to compare your solution to the instructor's

Documentation

- Digital courseware included

Participant profiles

- Developers who interact with JavaScript on a daily basis and have a strong background in programming

Prerequisites

- Participants should have followed or have knowledge covered by: JavaScript - Fundamentals

Objectives

- Develop cross-browser JavaScript applications and libraries

Niveau
Avancé
Classroom Registration Price (CHF)
1600
Virtual Classroom Registration Price (CHF)
1500
Duration (in Days)
2
Reference
JAS-02