deerwalk
training center

INTRODUCTION TO ANGULAR WITH SCRIPTING LANGUAGE JAVASCRIPT

Nature of the course: Theory + Practical
Total hours per day: 2 Hours
Course duration: 2 and a Half Weeks

Course Summary

The JavaScript course at the Deerwalk Training Center (DTC) is designed for novices who wish to learn how to think about and produce meaningful JavaScript code, as well as read JavaScript code written by others. The course also teaches how to translate a literary description of a problem (requirement) into a JavaScript application or library. This is a foundational course for anyone with no prior programming expertise who wants to work as a professional Java Script engineer in the future.

Completion Criteria

After fulfilling all of the following criteria, the student will be deemed to have finished the Module:

- Has attended 90% of all classes held
- Has received an average grade of 80% on all assignments
- Has received an average of 60% in assessments
- The tutor believes the student has grasped all of the concepts and is ready to go on to the second module.

Required Textbooks

- David Flanagan, “JavaScript: The Definitive Guide”, O’Reilly.
- David J. Eck, “Introduction to Programming Using Java”, University Press of Florida.
- Herbert Schildt, “Java the Complete Reference” McGraw Hill.

Prerequisites

- Basic knowledge about programming, bits/bytes, procedures, classes, computer architecture, etc. If you just have theoretical knowledge that is perfectly okay but you should have strong convictions on what programming is, and what you hope to achieve from this class.
- Willing and eager to spend at least 10-20 hours (varying from student-to-student) per week outside of the training class to read/write codes in JavaScript (self-study and practice).
- There is no prior educational level requirement for this course. Anyone from 10+2 student to someone who is doing her PHD in Genetic Engineering is welcome to take this course.
- If you are only interested in theory and have no interest/patience in spending at least 10 hours every week throughout the duration of the course, then this course might not be for you.
- If you have absolutely no idea about programming or do not see yourself doing programming in the next six - odd months, then this class may not be for you.

Course Details

Week I

Understanding Javascript

- Introduction
- History of JavaScript
- Tools for JavaScript Development
- Introduction to Web Console
- Adding JavaScript to HTML

Working With Data

- Variable
- Data types
- Arithmetic operators and math
- Strings and Numbers
- Conditional statement and logic
- Arrays
- Properties and methods in Arrays
- Loops

- Looping through Arrays
- Break and continue loops

Week II

Functions And Objects

- Functions in JavaScript
- Argument and return values
- Variable scope
- Lets and Const
- Objects
- Object constructors
- Closures

Javascript Dom Elements

- DOM: Document Object Model
- Query Selectors
- Access and Change Elements, Classes and attributes
- Add DOM elements
- Apply CSS to elements
- [Class Project: Create an Analog Clock]

Week III

Javascript Dom Events

- What are DOM events?
- Typical DOM events
- Trigger functions with event handlers
- Add and use event listeners
- Pass argument via event listeners
- **[**Class Project: Typing Speed Tester**]**
- **[**Class Project: Automated Responsive Images Markup**]**

Labs

Lab assignments will focus on the practice and mastery of contents covered in the lectures, and introduce critical and fundamental problem-solving techniques to the students.

Learning Outcomes

- How to use Java to develop object-oriented designs.
- How to recognize Java language components and how they interact in applications.
- How to create stand-alone Java programs and program them.
- Will have a better understanding of how to employ exception handling in Java applications.
- Will become familiar with Java generics and the Java Collections API.
- How to create Java apps using threads and how to read and write files.