



DTC - Angular with Scripting language

JAVA SCRIPT:

OBJECTIVES

The Deerwalk Training Center (DTC) – Java Script course is targeted for beginners who want to:

- Learn how to think and write meaningful piece of code in Java Script.
- Learn how to read Java Script code that has been written by somebody else.
- Learn how to map literary description of a problem (requirement) to an application/library coded in Java Script. In summary, this course teaches how to program using Java Script programming language.

This is a core basic level course that is essential for anyone who have no prior programming experience but wish to be a professional Java Script engineer in future.

TARGET GROUP

- Anyone who has some basic knowledge about programming and wants to learn to write applications in Java Script for any purpose e.g. curiosity, hobby, to complete an academic project, to work towards a career as Java Script, to help in project management, etc.

Prerequisites:

- Basic knowledge about programming, bits/bytes, procedures, classes, computer architecture, etc. If you just have a 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 Java (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.

TRAINING METHOD

- Lab exercises are mandatory, have a fixed deadline, and are graded. The course puts heavy emphasis on lab exercises because software programming can only be learnt well by explicitly putting into practice the principles that have been taught (i.e. in simpler terms – by doing lots and lots of coding).
- Instructors may provide relevant lecture/lab notes to students as (and when) necessary in the form of printed handouts and or via emails.
- Instructors may provide supplementary code snippets to students via email or in lab class to support the theory and or lab material that is being taught.

COURSE DURATION

- 25 hours
- Classes
 - ✓ Morning/Evening

COURSE BREAKDOWN

1. UNDERSTANDING JAVASCRIPT
 - Introduction
 - History of JavaScript
 - Tools for JavaScript Development
 - Introduction to Web Console
 - Adding JavaScript to HTML
2. 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
3. FUNTIONS AND OBJECTS
 - Functions in JavaScript
 - Argument and return values
 - Variable scop
 - lets and const
 - Objects
 - Object constructors
 - Closures
4. 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]

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]

JQuery

OBJECTIVE

The Deerwalk Training Center (DTC) – JQuery course is targeted for beginners who want to:

- Learn how to think and write meaningful piece of code in Java Script.
- Learn how to read Java Script code that has been written by somebody else.
- Learn how to map literary description of a problem (requirement) to an application/library coded in Java Script. In summary, this course teaches how to program using JQuery programming language.

This is a core basic level course that is essential for anyone who have no prior programming experience but wish to be a professional Java Script engineer in future.

TARGET GROUP

- Anyone who has some basic knowledge about programming and wants to learn to write applications in Java Script for any purpose e.g. curiosity, hobby, to complete an academic project, to work towards a career as JQuery, to help in project management, etc.

Prerequisites:

- Basic knowledge about programming, bits/bytes, procedures, classes, computer architecture, etc. If you just have a 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 Java (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.

TRAINING METHOD

- Lab exercises are mandatory, have a fixed deadline, and are graded. The course puts heavy emphasis on lab exercises because software programming can only be learnt well by explicitly putting into practice the principles that have been taught (i.e. in simpler terms – by doing lots and lots of coding).
- Instructors may provide relevant lecture/lab notes to students as (and when) necessary in the form of printed handouts and or via emails.
- Instructors may provide supplementary code snippets to students via email or in lab class to support the theory and or lab material that is being taught.
- Students are graded on the basis of attendance, lab exercises and exam in the increasing order of importance.

COURSE DURATION

- 20 hours
- Classes
 - ✓ Morning/Evening

COURSE BREAKDOWN

1. QUICK INTRODUCTION
 - What is jQuery?
 - Setting up the environment
 - First jQuery enabled page
 - Selectors and filters
 - Creating and modifying page content
 - Handling events
 - Animation page content
2. WORKING WITH PAGE CONTENT
 - Basic and advanced selectors
 - Basic, attribute, and advanced filters
 - Traversing documents with JQuery
 - JQuery Statement Chaining
[Class Project: Scripting challenge]
3. MANIPULATING PAGE CONTENT
 - Creating page content
 - Inserting, altering and manipulating page content
 - Manipulating attributes
 - Working with CSS
 - Embedding custom data
[Class Project: Scripting challenge]
4. JQuery EVENTS
 - jQuery event handling features
 - Binding and unbinding events
 - Event helper features
 - Using jQuery event object
[Class Project: Scripting challenge]
5. ANIMATION AND EFFECTS
 - Introduction to jQuery animations
 - Hiding and showing elements
 - Fading elements
 - Sliding elements
 - Custom animations
[Class Project]

Ajax

OBJECTIVE

The Deerwalk Training Center (DTC) – Ajax course is targeted for beginners who want to:

- Learn how to think and write meaningful piece of code in Ajax.
- Learn how to read Java Script code that has been written by somebody else.
- Learn how to map literary description of a problem (requirement) to an application/library coded in Java Script. In summary, this course teaches how to program using Ajax programming language.

This is a core basic level course that is essential for anyone who have no prior programming experience but wish to be a professional Ajax engineer in future.

TARGET GROUP

- Anyone who has some basic knowledge about programming and wants to learn to write applications in Java Script for any purpose e.g. curiosity, hobby, to complete an academic project, to work towards a career as JQuery, to help in project management, etc.

Prerequisites:

- Basic knowledge about programming, bits/bytes, procedures, classes, computer architecture, etc. If you just have a 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 Java (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.

TRAINING METHOD

- Lab exercises are mandatory, have a fixed deadline, and are graded. The course puts heavy emphasis on lab exercises because software programming can only be learnt well by explicitly putting into practice the principles that have been taught (i.e. in simpler terms – by doing lots and lots of coding).
- Instructors may provide relevant lecture/lab notes to students as (and when) necessary in the form of printed handouts and or via emails.
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COURSE DURATION

- 15 hours
- Classes
 - ✓ Morning/Evening

COURSE BREAKDOWN

1. GETTING STARTED

- What is AJAX?
- Using a synchronous XHR request
- Making request asynchronous
- Scripting for backwards compatibility

2. MODIFYING THE DOM

- Update the DOM with getElementById
- Modifying elements with getElementsByTagName
- Parsing XML using AJAX
- Reading JSON files
- Using event-driven AJAX

3. jQuery AJAX

- Understand jQuery AJAX methods
- Create and AJAX request in jQuery
- Work with the data returned from a jQuery AJAX request
- Reading data with jQuery

4. AJAX IN ACTION

- Preparing a live search AJAX app
 - Sending JSON data to the page
 - Searching JSON data
 - Styling an application
 - Adding CSS3 animations
- [Class Project: ZIP code lookup]

Vue.js

OBJECTIVE

The Deerwalk Training Center (DTC) – Vue.js course is targeted for beginners who want to:

- Learn how to think and write meaningful piece of code in Vue.js.
- Learn how to read Java Script code that has been written by somebody else.
- Learn how to map literary description of a problem (requirement) to an application/library coded in Java Script. In summary, this course teaches how to program using Vue.js programming language.

This is a core basic level course that is essential for anyone who have no prior programming experience but wish to be a professional Vue.js engineer in future.

TARGET GROUP

- Anyone who has some basic knowledge about programming and wants to learn to write applications in Java Script for any purpose e.g. curiosity, hobby, to complete an academic project, to work towards a career as Vue.js, to help in project management, etc.

Prerequisites:

- Basic knowledge about programming, bits/bytes, procedures, classes, computer architecture, etc. If you just have a 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 Java (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.

TRAINING METHOD

- Lab exercises are mandatory, have a fixed deadline, and are graded. The course puts heavy emphasis on lab exercises because software programming can only be learnt well by explicitly putting into practice the principles that have been taught (i.e. in simpler terms – by doing lots and lots of coding).
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COURSE DURATION

- 20 hours
- Classes
 - ✓ Morning/Evening

COURSE BREAKDOWN

1. INTRODUCTION
 - Get to know Vue
 - Vue Benefits
 - What you should know
2. THE SIMPLEST FORM
 - Adding Vue to a web page
 - Understand execution flow
 - A Bootstrap detour
 - Thinking declaratively with data binding
 - Understanding two-way data binding
 - Methods and event handling
3. ESSENTIAL DIRECTIVES, OPTIONS, AND TOOLS
 - Rendering elements conditionally
 - Loading data asynchronously
 - Using the created lifecycle hook
 - Using the Vue Devtools browser extension
 - Rendering list with v-for
 - Using additional v-for parameters
 - Combining v-for with event handling
 - Using computed peroperties
4. ENHANCING USER INTERFACES
 - Adding dynamic style attributes
 - Adding dynamic class attributes
 - Using CSS transitions
 - Applying transitions to lists
 - Using CSS anmiations
5. Vue COMPONENTETS
 - Using Vue components
 - Registering and using components
 - Adding component props
 - Managing component content with slots
 - Componentizing existing in-DOM templates
 - Handling events in component

- Vue CLI
- Installing Vue CLI
- Vue CLI project template
- Moving to single-file components
- Building for production

Angular

OBJECTIVE

The Deerwalk Training Center (DTC) – Angular course is targeted for beginners who want to:

- Learn how to think and write meaningful piece of code in Angular.
- Learn how to read Java Script code that has been written by somebody else.
- Learn how to map literary description of a problem (requirement) to an application/library coded in Java Script. In summary, this course teaches how to program using Angular programming language.

This is a core basic level course that is essential for anyone who have no prior programming experience but wish to be a professional Angular engineer in future.

TARGET GROUP

Anyone who has some basic knowledge about programming and wants to learn to write applications in Java Script for any purpose e.g. curiosity, hobby, to complete an academic project, to work towards a career in Angular, to help in project management, etc.

Prerequisites:

- Basic knowledge about programming, bits/bytes, procedures, classes, computer architecture, etc. If you just have a 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.
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TRAINING METHOD

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- Students are graded on the basis of attendance, lab exercises and exam in the increasing order of importance.

COURSE DURATION

- 30 hours
- Classes
 - ✓ Morning/Evening

COURSE BREAKDOWN

1. INTRODUCTION TO ANGULAR
 - Introduction
 - Component Based Model
 - Setting Up
 - Creating and running a project
2. COMPONENTS
 - Introducing the app component
 - Creating your first component
 - Anatomy of a component
 - Binding data from component class
 - Data binding and async
 - Template Interpolation
3. TEMPLATES AND DATA BINDING
 - Looping with ngFor
 - Using ngIf
 - Passing inputs to components
 - Using ngOnInit Lifecycle hook
 - Passing member variables to components
 - Styling Angular components
 - Handling click events
 - Two-way data binding with ngModel
4. SERVICES
 - Creating and using multiple modules
 - Creating a service
 - Understanding dependency injection
 - Service Injection Context
 - Making REST calls with HttpClient
 - Extending the sample app
 - Building an Angular Project
[Class Project: My Github Project Listing Web App]
5. ROUTING
 - Introduction to Routing
 - Creating an angular project with routing
 - Creating routes

- Route redirects and wildcards
 - Configuring child routes
 - Showing navigation for routes
 - Wrap Up
- [Class Project: CRUD Application using Angular and Firebase]

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.

DISCLAIMER

Please note that Deerwalk Training Center reserves the right to change the course syllabus.