

7005 INTRO TO PROGRAMMING & CODING USING JAVASCRIPT

Description

Javascript Programming and Coding Intro 70005 Course

Course Overview Javascript Programming and Coding

Learning to code is invaluable in today's job market. This course starts from square one, showing you how a simple line of code can produce output. By the end of this class you will have the essential knowledge and skills to begin programming in JavaScript, and will have a firm grasp of the fundamentals to learn other programming languages.

Prerequisite

- The ability to recognize a pattern and replicate it with a variation
- A degree of speed and accuracy in typing

Javascript Programming and Coding Agenda Topics

Unit 1- Fundamentals of Coding

Getting a solid foundation in coding constructs is the key to mastering any programming language. Here we lead by example, introducing you to small programs that demonstrate each concept. Once you feel comfortable with basic syntax, variables and strings, we show how you can use them to construct simple alert boxes. This training class will show you how to:

- Write program instructions that work with variables, numbers and text
- Add comments to your code
- Gather input from a user and output a response
- Create simple dialog boxes that prompt the user

Unit 2- Work with Variables

As in Algebra, a variable is a symbol whose value can vary or change. We use a variable as a placeholder, and substitute real values as our programs run. Understanding and using variables is critical in any programming, scripting, or macro language. Once you have completed this section of the training, you will know how to:

- Define a variable in your program
- Assign a value to your variable
- Add a name, address, or any text to a string variable

- Store numeric values in variables and perform computations
- Create variables that store either “true” or “false” values

Unit 3- Learn about Conditional Statements, Branching and Decisions

Conditional statements allow you to tailor your program for specific situations. For example, “only charge sales tax if my customer lives in a certain state,” or “charge my customer a specific rate based on the state he or she lives in.” Conditional statements provide a way to make decisions and apply alternative rules in different situations. Our JavaScript training will show you how to:

- Compare two values and decide if a condition is true
- Execute one or more instructions if a condition is true
- Apply an alternate set of instructions if the condition is not true

Unit 3- Understanding Repetition & Loop Structures

Programs often perform the same calculation hundreds of times using different data. For example, you may want to list all of the clients in an address book and calculate how much they have spent this year. JavaScript allows you to place a set of instructions inside a “loop,” and gives you tools to control how many times to repeat them. This part of our JavaScript training class will show you how to:

- Create a program loop
- Repeat an operation over a set of values iteratively
- Set a counter to track how many times your loop has run

Unit 4- Describing Functions

Functions allow you to group code that performs a specific task. For example, you can create a function that looks up the tax rate for a given state and returns that rate. By the end of this JavaScript training section, you will know how to:

- Group instructions that perform a single task into a function
- Call your function and pass it one or more variables
- Return a value to your program after your function runs

Unit 5- Working with Objects & Methods

Object-oriented programming is a way of organizing a program by creating self-describing objects that inherit features from more general objects. There are many benefits to objects, and they are a feature of most modern programming languages including Java, C Visual Basic, and JavaScript. Our JavaScript training will explain the benefits, and show how to use objects already defined in browsers to control the window and interact with your users. Specifically, you will learn how to:

- Create an object
- Define methods that control the behavior of your object
- Declare properties that describe an attribute, such as color or font style
- Call an object using a method you created
- Create “Dynamic HTML” using a combination of JavaScript and HTML

PRODUCT TYPE

- simple

PRODUCT CAT

- JavaScript
- Web Development and Programing

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