Intro to Programming Learning Objectives

CODE
THE DREAM

At the end of each week, students should be able to meet the following objectives. If they are not able to meet these objectives, they should schedule a 1:1 appointment with a mentor.

Week #	Lesson Name	Topics Covered	Students will be able to…
1	Lesson 1.1: JavaScript Basics	Basic JavaScript syntax, variables, data types, conditional statements	Show a completed assignment making use of variables and conditional statements.
2	Lesson 1.2: JavaScript Functions	Functions	Apply their knowledge of functions to write basic JS functions.
3	Lesson 1.3: JavaScript Loops	Loops, including 'for' loops	Incorporate loops into functions based on described parameters.
4	Lesson 1.4: JavaScript Arrays	Arrays, looping through arrays, multidimensional arrays	Write functions using simple array parameters.
5	Lesson 1.5: JavaScript Objects	Creating objects, accessing object properties, using multiple object operators, looping through objects.	Create functions that take one array parameter and return another parameter based on objects.
6	Lesson 2.1: Introduction to Git	Command line, Git, Git repositories, Git commit, GitHub	Create and clone a repository, commit changes, and submit a pull request.
7	Lesson 3.1 How the Web Works	URLs, domain names, IP addresses, HTTP and HTTPS	Create a personal portfolio section in their repositories.
8	Lesson 4.1 HTML Basics	Semantic markup, formatting page content, file paths, displaying images, and inline vs. block level elements	Add the following HTML from scratch to their personal portfolio: document type, head, body, and sections.
9	Lesson 4.2 JavaScript and the DOM	DOM and making changes to the DOM	Create a JavaScript file in a project directory; add footer, copyright, and skills sections to their personal portfolio.

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Week #	Lesson Name	Topics Covered	Students will be able to…
10	Lesson 4.3 HTML Forms and DOM Practice	HTML Forms; DOM elements, traversal, and manipulation; event handling	Add a "leave a message" form to their personal portfolio; display previous messages under the form.
11	Lesson 4.4: CSS Basics	CSS Concepts, selectors, values, units	Create and load a stylesheet, style various elements from the personal portfolio.
12	Lesson 4.5 CSS Layout	CSS Box model, display property, positioning, and media queries; Flexbox	Add a grid layout to the personal portfolio; ensure the website is accessible to mobile, desktop, and tablet sizes.
13	Lesson 5.1 Debugging JavaScript in the Browser	Debugging, breaking, stepping, debugging functions, debugging exception errors	Identify and debug at least 8 bugs in a "guessing game" program.
14	Lesson 6.1 AJAX Basics	AJAX concepts, using JS to make AJAX requests, AJAX callbacks, processing JSON with JS	Create a "projects" section of the personal portfolio that fetches other GitHub repositories.
15	Lesson 6.2 Working with the Fetch API	Fetch API, fetch requests, reusable fetch functions, handling errors, Promise.all, post data with fetch	Incorporate fetch function and then method into the code for their "projects" sections.
16	Final Project	Final project rubric	