**You Don’t Know JS: Up & Going (Synopsys)**

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The basic principles of programing can be defined by saying that while a ***code*** is an instruction given to the computer, a group of codes and its combination is called **programming** language or ***syntax***. JavaScript uses a collection of ***statements*** that describes the steps required to complete a task and are made up from one or more ***expressions***.

Running the program (JS) will require more than a group of programming statements (instructions), and it needs another computer program that will convert the codes into commands to be understood by the computer. The ***output*** or result of running the program will let you to see ***values*** in the console. And, the ***input*** or information ***(variables)*** received from the user will be by typing into a HTML elements form that will be read by JavaScript. But values and variables need an ***operator*** (‘=’ and ‘\*’) to ensure the program will perform actions.

A ***block*** groups a series of statements which can be only processed if the conditional is acceptable. ***Conditionals*** ‘if’ for true statements or ‘else clause’ for false statements, but this is optional. Other basics concepts are loops, functions, and scope. ***Loops*** test a condition by repeating a block of statement until the condition fails. ***Functions*** refer to actions that execute an activity, so you will see the function followed by a logic name, and it allows to use and combine two actions in a same function; ***Just like a person with a specific set of talents, where each talent will help that person to accomplish a goal.*** Lastly, ***scope*** is the set of variables and rules of how the variables can be accessed, and while two different variables cannot have the same scope, it can appear in different scopes. Also, a scope can be nested inside another scope.