Homework #JSII

1. Explanations of terms as explained to a 12-year-old –

* In Javascript, the keyword **for** is used to create a **for loop** so that code will run a set number of times without having to write the code over and over again. It saves the program from having to write same code repeatedly, when it needs to be run more than once in the same program. The for loop is set up by giving defining a variable to be used as a counter. The variable is set to a value to start with and then it is increased, or decreased, in increments until it reaches a condition that will tell the loop to stop running. The program will perform the instructions of the loop over and over again until the counter reaches the value that will tell the computer to exit the loop. At this point, the computer will continue with the rest of the program.
* In Javascript, as in many other programming languages, there are symbols that are used to represent the English words ‘and’, ‘or’, and ‘not’. The symbols are **&&** for ‘and’, **||** for ‘or’, and **!** for ‘not’. These symbols can be used when you want to consider more than one condition at the same time. They mean the same thing that the English word means that they represent. For instance, the && operator, which means ‘and’, when used in an if statement with two conditions, will tell the computer to only perform a task if both conditions are true. If either one is false, then the outcome of the statement will be false. Both the first condition and the second condition must be true for the statement to be true. For the || operator, which means ‘or’, the computer will perform the task if either of either one of the conditions are true. Just like in English, if either the first condition is true, or the second condition is true, then the outcome of the statement will be true. For the ! operator, which means ‘not, the computer will evaluate the statement to the opposite of what the condition would evaluate to if the ! symbol was not used. So, this means that if the condition without the ! symbol would evaluate to true, then the addition of the ! symbol in front of it will make it evaluate to false, and if the condition without the ! symbol would evaluate to false, then the addition of the ! symbol in front of it will make it evaluate to true. Here is a way to use the ! symbol in relation to the shoppers’ rewards program scenario that I made up in the previous assignment. Since all of the shoppers who sign up online for the program who are evaluated to every tenth person to sign up receive a special discount on their next purchase, then you might like to give the other shoppers something special to so that they don’t feel discouraged and leave the program. So, in this case you would use the ! symbol to evaluate to true if they are not one of the customers that evaluate to every tenth person to enroll. This would make all the other customers that don’t get the special discount evaluate to true in the if statement condition. That way you can print a message to all of the customers, who don’t receive the special discount, a message like, “Thank you for joining our Shoppers’ Rewards Program! Your name will be entered into a drawing to receive a free Coach Bag! Be sure to check back on the 31st of this month to see if you are the winner, and to see what other new offers we have to give you.”