Homework #JSVII

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

* A **closure** is formed when you have an inner function that is returned by an outer enclosing function. By declaring the inner function inside the outer function, this allows the inner function to have access to all of the variables that are created inside the enclosing function. When the inner function is the value that is returned by the outer function’s return statement, it is still able to access the variables that were defined inside the outer enclosing function. This allows the variables of the enclosing function to be accessed from outside of the function through the function that was returned. Not only can the variables be accessed now from outside the function they were defined in, but they can, also, be changed outside of the function. This gives the ability to have variables enclosed, or hidden away, inside function where they were declared, but without being able to see the source, so that they can be hidden from view by the user.

Here is an example –

const outerFunction() {

let outerVariable = 0;

return innerFunction(x) {

newVariableValue = outerVariable + x;

return newVariableValue;

}

}

Use this function to create a function that has access to the outer function’s variable that can be used outside of the original function -

const myValueFunction = outerFunction();

Then call the newly created function with any value that you want to increment the variable with, like so –

myValueFunction(2); // adds 2 to outerVariable, and returns 2

myValueFunction(6); // then adds 6 to the current value of outerVariable, which is 2, so it returns 8