

Explain the difference between the == operator and the === operator.

Both operators are used for equality comparison, the difference however between The == and === operator is the type factor. The == operator allows comparison between two types while the === does not. For example a string (with numeric) and a number (int or float) would return true for == while it would return false for === (as it checks the value but also the type).

Explain what a closure is. (Note that JavaScript programs use closures very often)

A function in Javascript has access to variables inside the function due to local variables, but can also access them outside the function with the use of a global variable. In the case of which you want a variable accessible to all function, the logic choice would be too make a global variable outside the function. However, any code on the same document can now change your variable, which is not what you want. Consequently you would add the variable to function, changing it to a local variable. Now there is still the problem of accessing the variable to all functions (which is why you set it to global in first place), the solution to this is to make the function self-invoking, meaning it only runs once and return a function expression. This way whenever the function it's called, it's an function itself which can access the variable in the parent scope. This is the closure; a function with access to the parent scope, after the parent function is closed.

Explain what higher order functions are.

In Javascript a function can take another function as argument; or returns a functions as result. If this is the case, it's a high order function. High-order functions are used to actions and values. Some forms are; functions that create new functions, functions that change other functions, functions that provide new types of control flow and a built-in array method providing a for/of loop.

Explain what a query selector is and give an example line of JavaScript that uses a query selector.

The query selector is used to return the first element of a specific CSS element in the document you're coding. Below, an example line of JavaScript is given in a function which selects the CSS class="selectorTest" and can be used to turn the backgroundColor blue with an added function.

```
<script>
function selectorFunction() {
  document.querySelector(".selectorTest").style.backgroundColor="blue";
}
</script>
```