# Coding Questions

**Passing values by reference vs by value**

For a JS developer, it's crucially important to understand which values are passed by reference, and which ones are passed by value.

Remember that objects, including arrays are passed by reference while strings, booleans and numbers are passed by value.

### 1. What would be the output of following code?

var strA = "hi there";

var strB = strA;

strB="bye there!";

console.log (strA)

The output will 'hi there' because we're dealing with strings here. Strings are passed by value, that is, copied.

### 2. What would be the output of following code?

var objA = {prop1: 42};

var objB = objA;

objB.prop1 = 90;

console.log(objA)

The output will {prop1: 90} because we're dealing with objects here. Objects are passed by reference, that is, objA and objB point to the same object in memory.

### 3. What would be the output of following code?

var objA = {prop1: 42};

var objB = objA;

objB = {};

console.log(objA)

The output will {prop1: 42}.

When we assign objA to objB, the objB variable will point to the same object as the objB variable.

However, when we reassign objB to an empty object, we simply change where objB variable references to. This doesn't affect where objA variable references to.