

Front end development: Tricky Parts

JavaScript – closures

The following exercise contains the following subjects:

- ◆ closures

Instructions

Without running the code below, explain in your own words what the result of each block of code will be and why.

Block 1

```
(function immediateA(a) {  
  return (function immediateB(b) {  
    console.log(a); // What is logged?  
  })(1);  
})(0);
```

Block 2

```
let count = 0;
(function immediate() {
  if (count === 0) {
    let count = 1;
    console.log(count); // What is logged?
  }
  console.log(count); // What is logged?
})();
```

Block 3

```
var module = (function () {
  var foo = 'foo'

  function addToFoo (bam) {
    foo = bam;
    return foo;
  }

  var publicInterface = {
    bar: function () {
      return 'bar';
    },
    bam: function () {
      return addToFoo('bam')
    }
  }

  return publicInterface
})();

console.log(module.bar())
console.log(module.bam())
```

Block 4

```
function createIncrement() {  
  let count = 0;  
  function increment() {  
    count++;  
  }  
  let message = `Count is ${count}`;  
  function log() {  
    console.log(message);  
  }  
  return [increment, log];  
}  
const [increment, log] = createIncrement();  
increment();  
increment();  
increment();  
log(); // What is logged?
```

Block 2

```
var x = 10;  
console.log(x);  
  
if (true) {  
  (function() {  
    var x = 20;
```

```
    console.log(x);  
  })();  
}  
  
console.log(x);
```

Block 3

```
var x = 10;  
console.log(x);  
  
function test()  
{  
  var x = 20;  
  console.log(x);  
  
  if (x > 10) {  
    let x = 30;  
    console.log(x);  
  }  
  
  console.log(x);  
}  
  
test();  
console.log(x);
```

Block 4

```
var x;  
x = 10;  
  
function test()  
{
```

```
var x;  
if (x > 20) {  
    x = 50;  
}  
  
console.log(x);  
}  
  
test();
```

Block 5

```
function test()  
{  
    var x, y;  
  
    if (false) {  
        x = 50;  
    }  
  
    console.log(x);  
    console.log(y);  
  
    y = 100;  
    console.log(y);  
}  
  
test();
```

Block 6

```
function test()  
{  
    foo();  
    bar();  
}
```

```
// Function defined
// using function declaration
function foo()
{
    console.log('foo');
}

// Function defined
// using function expression
var bar = function() {
    console.log('bar');
}

test();
```