

# JS

# Hoisting

# What is it ?

it's when **var or function declarations** are conceptually  
"moved" to the top of their enclosing scope

# Variables



```
a = 2;  
console.log(a);  
var a;
```



```
var a;  
a = 2;  
console.log(a);
```

# Functions



```
console.log(greeting());  
  
function greeting () {  
  return 'hello from function!'  
}
```



```
function greeting () {  
  return 'hello from function!'  
}  
  
console.log(greeting());
```

# Be aware ...

- Function declarations are hoisted but function expressions are not.
- Functions are hoisted first, then variables.
- Subsequent function declarations do override previous ones.
- Avoid declaring functions in blocks because They are hoisted ignoring the block.

# JS

# Advanced Patterns

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# Closure



```
function makeAdder(x) {  
  return function (y) {  
    return x + y;  
  };  
}  
  
var plusOne = makeAdder( 1 );  
  
var plusTen = makeAdder( 10 );  
  
plusOne( 3 );      // 4  <-- 1 + 3  
plusOne( 41 );     // 42 <-- 1 + 41  
  
plusTen( 13 );     // 23 <-- 10 + 13
```

# Module



```
var coolModule = (function () {  
  var something = "cool";  
  var another = [1, 2, 3];  
  
  return {  
    doSomething: function () {  
      console.log( something );  
    },  
  
    doAnother: function () {  
      console.log( another.join( " ! " ) );  
    }  
  };  
})();  
  
coolModule.doSomething(); // cool  
coolModule.doAnother(); // 1 ! 2 ! 3
```



# Module Revealing

```
var rectangle = (function() {  
    function getArea(length, breadth) {  
        return length * breadth;  
    }  
  
    function getPerimeter(length, breadth) {  
        return 2 * (length + breadth);  
    }  
  
    return {  
        GetArea: getArea,  
        GetPerimeter: getPerimeter  
    };  
})();  
  
rectangle.GetArea(2, 3); // output: 6  
rectangle.GetPerimeter(2, 3) //output: 10
```

# Activity

Solve exercise 1 and 2 included in the following link:

<https://github.com/abrahamBerzunza/js-training-program/blob/master/exercises>

Make sure all test cases pass and send your **pull request**.

**You don't know JS**

<https://github.com/getify/You-Dont-Know-JS>

**JS**