# JavaScript Objects

Building the World Around Us
One Object at a Time

# JavaScript

## Objects

- Variables

  - Hold one value

- Arrays

  - Hold many values

- Objects

  - Hold many variables

  - Contain many functions

```
var foo = "Hello";
var bar = 42;


var numbers = new Array(42, 3.1415, 1.21);
```

# JavaScript

## Objects

Initialization

- Empty block

- Using "new Object()"

```
var student = { };

var instructor = new Object();
```

# JavaScript

## Objects

Variables - Called 'Properties'

- Similar to arrays - square brackets with names

- Dot syntax: object.variable

```
var student = { };
student["name"] = "John Doe";
var instructor = new Object();
instructor.name = "Jane Expert";
```

# JavaScript

## Objects

### Functions - Called 'Methods'

- Syntax of declaration is reversed

- Function is assigned to a name

```javascript
var student = { };
student["name"] = "John Doe";
var instructor = new Object();
instructor.name = "Jane Expert";
student.sayGreeting = function() {
    alert("Hello. I'm " + student.name);
}
instructor.sayGreeting = function() {
    alert("Hello. I'm " + instructor.name);
}
student.sayGreeting();
instructor.sayGreeting();
```

# JavaScript

## Objects

### Initialization - All at once

- Within the curly braces (similar to array)

- Scope of variables is local to object, but can be accessed via dot syntax

```
var student = {
    name: "John Doe",
    sayGreeting: function( ) {
        alert("Hello. I'm " + this.name);
    }
};
var instructor = {
    name: "Jane Expert",
    sayGreeting: function() {
        alert("Hello. I'm " + this.name);
    }
};
```