

Coding for Journalists

UC Berkeley Graduate School of Journalism

Data Types Review

```
var someVariable = 23423;
```

Data Types Review

```
var someVariable = 23423;
```

```
var someVariable = "John Doe";
```

Data Types Review

```
var someVariable = 23423;
```

```
var someVariable = "John Doe";
```

```
var someVariable = false;
```

Data Types Review

```
var someVariable = 23423;
```

```
var someVariable = "John Doe";
```

```
var someVariable = false;
```

```
var someVariable = [55, 11, 33];
```

Data Types Review

```
var someVariable = 23423;
```

```
var someVariable = "John Doe";
```

```
var someVariable = false;
```

```
var someVariable = [55, 11, 33];
```

```
var someVariable = {name: "James", age: 27};
```

Functions

- A **function** is another data type. You can assign them to a variable.

```
var someVariable = function() { };
```

Functions

- A **function** is another data type. You can assign them to a variable.

```
var someVariable = function() { };
```

- A **function** is a block of code that doesn't run until it's called.

```
var someVariable = function(){  
    return "Hello there!";  
};
```


Anatomy of a function

```
var someVariable = function(){  
    return "Hello World!";  
}  
  
someVariable();
```

Anatomy of a function

```
var someVariable = function(){  
    return "Hello World!";  
}  
  
someVariable();
```

Anatomy of a function

```
var someVariable = function(){  
    return "Hello World!";  
}  
  
someVariable();
```

Anatomy of a function

```
var someVariable = function()  
    {  
        return "Hello World!";  
    }  
  
someVariable();
```

Anatomy of a function

```
var someVariable = function(){
```

```
    return "Hello World!";
```

```
}
```

```
someVariable();
```

Anatomy of a function

```
var someVariable = function(){  
    return "Hello World!";  
}  
  
someVariable();
```

Anatomy of a function

```
var someVariable = function(){  
    return "Hello World!";  
}
```

```
someVariable();
```

Anatomy of a function

```
var someVariable = function(){  
    return "Hello World!";  
}
```

```
var anotherVariable = someVariable();
```


Anatomy of a function

```
var someVariable = function(){  
    return "Hello World!";  
}
```

```
$("#div").text(someVariable());
```

Pop Quiz

```
var age = function(){  
    return 27;  
}
```

```
console.log(age());
```

What is the value displayed
in the console?

Pop Quiz

```
var age = function(){  
    return 27;  
}
```

```
console.log(age());
```

What is the value displayed
in the console?

27

Pop Quiz

```
var message = function(){  
    return "hello world!";  
}
```

```
console.log(message());
```

What is the value displayed
in the console?

Pop Quiz

```
var message = function(){  
    return "hello world!";  
}
```

```
console.log(message());
```

What is the value displayed
in the console?

hello world!

Pop Quiz

```
var message = function(){  
    return "hello world!";  
}
```

```
console.log(message);
```

What is the value displayed
in the console?

Pop Quiz

```
var message = function(){  
    return "hello world!";  
}
```

```
console.log(message);
```

What is the value displayed
in the console?

```
function(){ return "hello world!"; }
```

Arguments/Parameters

```
var calculateTip = function(bill){  
    return bill * 0.20;  
}
```


Arguments/Parameters

```
var calculateTip = function(bill){  
    return bill * 0.20;  
}
```

Arguments/Parameters

```
var calculateTip = function(bill){  
    return bill * 0.20;  
}  
  
calculateTip(10);
```

Arguments/Parameters

```
var calculateTip = function(bill){  
    return bill * 0.20;  
}
```

```
calculateTip(10);
```

```
calculateTip(100);
```

Arguments/Parameters

```
var calculateTip = function(bill){  
    return bill * 0.20;  
}
```

```
calculateTip(10);
```

```
calculateTip(100);
```

```
calculateTip(100);
```

Pop Quiz

```
var tipCalculator = function(bill){  
    return bill * 0.10;  
}
```

```
tipCalculator(100)
```

Pop Quiz

```
var tipCalculator = function(bill){  
    return bill * 0.10;  
}
```

```
tipCalculator(100)
```

10

Pop Quiz

```
var tipCalculator = function(bill){  
    return bill * 0.10;  
}
```

```
tipCalculator(1000)
```

Pop Quiz

```
var tipCalculator = function(bill){  
    return bill * 0.10;  
}
```

```
tipCalculator(1000)
```

100

Pop Quiz

```
var tipCalculator = function(bill){  
    return bill * 0.10;  
}
```

```
tipCalculator(10)
```

Pop Quiz

```
var tipCalculator = function(bill){  
    return bill * 0.10;  
}
```

```
tipCalculator(10)
```

1

Pop Quiz

```
var message = function(name){  
    return "Hello " + name + "!";  
}
```

```
message("Jeremy")
```

Pop Quiz

```
var message = function(name){  
    return "Hello " + name + "!";  
}
```

```
message("Jeremy")
```

Hello Jeremy!

Pop Quiz

```
var message = function(name){  
    return "Hello " + name + "!";  
}
```

```
message("Jim")
```

Pop Quiz

```
var message = function(name){  
    return "Hello " + name + "!";  
}
```

```
message("Jim")
```

Hello Jim!

Pop Quiz

```
var message = function(name){  
    return name;  
}
```

```
message("Jane")
```

Pop Quiz

```
var message = function(name){  
    return name;  
}
```

```
message("Jane")
```

Jane

Pop Quiz

```
var message = function(name){  
    return name;  
}
```

```
message(3291)
```

Pop Quiz

```
var message = function(name){  
    return name;  
}
```

```
message(3291)
```

3291

Multiple Arguments

```
var calculateTip = function(bill, tip){  
    return bill * tip;  
}
```

Multiple Arguments

```
var calculateTip = function(bill, tip){  
    return bill * tip;  
}
```

Multiple Arguments

```
var calculateTip = function(bill, tip){  
    return bill * tip;  
}
```

```
calculateTip(10, 0.10);
```

Multiple Arguments

```
var calculateTip = function(bill, tip){  
    return bill * tip;  
}
```

```
calculateTip(10, 0.10);  
calculateTip(100, 0.20);
```

Multiple Arguments

```
var calculateTip = function(bill, tip){  
    return bill * tip;  
}
```

```
calculateTip(10, 0.10);  
calculateTip(100, 0.20);  
calculateTip(100, 0.50);
```

Pop Quiz

```
var message = function(name, location){  
    return "Hi " + name + ", how is "+ location;  
}  
  
message("Jeremy", "Berkeley")
```


Pop Quiz

```
var message = function(name, location){  
    return "Hi " + name + ", how is "+ location;  
}
```

```
message("Jeremy", "Berkeley")
```

Hi Jeremy, how is Berkeley

Pop Quiz

```
var message = function(location, name){  
    return "Hi " + name + ", how is "+ location;  
}  
  
message("San Francisco", "Suzy")
```

Pop Quiz

```
var message = function(location, name){  
    return "Hi " + name + ", how is "+ location;  
}
```

```
message("San Francisco", "Suzy")
```

Hi Suzy, how is San Francisco

Pop Quiz

```
var sum = function(num1, num2){  
    return num1 + num2;  
}  
  
sum(5, 5)
```

Pop Quiz

```
var sum = function(num1, num2){  
    return num1 + num2;  
}
```

```
sum(5, 5)
```

10

Pop Quiz

```
var subtract = function(num1, num2){  
    return num2 - num1;  
}  
  
sum(5, 20)
```

Pop Quiz

```
var subtract = function(num1, num2){  
    return num2 - num1;  
}
```

sum(5, 20)

15

Pop Quiz

```
var collection = function(n1, n2, n3, n4){  
    return [n1, n2, n3, n4];  
}  
  
collection(1, 2, 3, 4)
```


Pop Quiz

```
var collection = function(n1, n2, n3, n4){  
    return [n1, n2, n3, n4];  
}
```

```
collection(1, 2, 3, 4)
```

```
[1, 2, 3, 4]
```

Another way to write functions

```
var one = function()  
{  
}
```

Another way to write functions

```
var one = function(){
```

```
}
```

```
function two(){
```

```
}
```

Variable Scope

```
var myAwesomeFunction = function(){  
    var testing = "This is just a test";  
    return testing;  
}
```

```
myAwesomeFunction()
```

```
console.log(testing) //Error!
```

Functions in objects

```
var person = {  
    name      : "John Doe",  
    age       : 22,  
    greeting  : function(name){ return "Hi "+name;}  
}
```

person.name

person.age

person.greeting("Jane Doe")

"this" keyword

- **this** is a special variable that automatically exists in JavaScript.
- **this** refers to the object that called the function.

This keyword

```
var person = {  
    name      : "John Doe",  
    age       : 22,  
    whoami    : function(){ return this.name;}  
}  
  
person.whoami()
```