



WEEK 5 / LESSON 10:

FUNCTIONS

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LEARNING OBJECTIVES

- Describe arguments as they relate to functions
- Predict values returned by a given function
- Differentiate between anonymous and named functions

TODAY'S SCHEDULE

- Review: Variables & Conditionals
- Functions
 - Cash Register Code Along
 - Weather Application Part 2
Lab

REVIEW

VARIABLES & CONDITIONALS

Questions?

CONVERTING DATA TYPES

Solution to Compare that **Code Along**

CONVERSION: STRING TO INTEGER

```
var intString = "4";  
var intNumber = parseInt(intString, 10);  
var intNumber = ~~intString;
```

`parseInt(string, radix)`

`~~string` //shorthand

`radix` = an integer between 2 and 36. **10 for decimal.**

- **Always specify to the radix parameter** eliminate reader confusion and guarantee predictable behavior.
- Different implementations produce different results when a radix is not specified.

For more see: [Mozilla MDN on parseInt](#)

CONVERSION: STRING TO FLOAT

```
var floatString = "3.14159";  
var floatNumber = parseFloat(floatString);  
var floatNumber = +floatString;
```

`parseFloat(string)`

`+string` //shorthand

WHY CONVERT DATA TYPES?

- Number may be read as string input eg. "3"
- Convert date (month number or name)
- etc...
- For more see W3Schools on [JS Comparisons](#)

CONVERSION: NUMBER TO STRING

```
var number = 4;  
number.toString();
```

OR

```
number + "";
```

FUNCTIONS

A block of code designed to perform a particular task

*Executed when "something" invokes it
(calls it)*

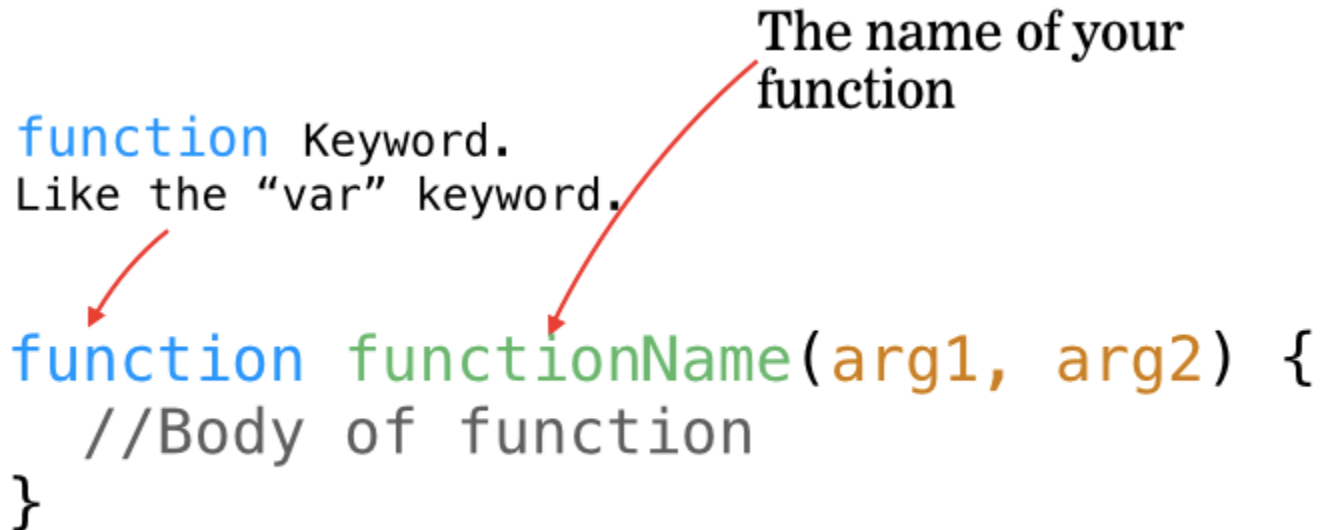
[W3Schools](https://www.w3schools.com/js/js_functions.asp)

FUNCTIONS SYNTAX

`function` Keyword.
Like the “var” keyword.

The name of your function


```
function functionName(arg1, arg2) {  
    //Body of function  
}
```

A diagram illustrating the syntax of a function declaration. It shows a code snippet: `function functionName(arg1, arg2) {` followed by an indented line `//Body of function` and a closing brace `}`. The word `function` is blue, `functionName` is green, and `arg1` and `arg2` are orange. Two red arrows point from explanatory text to the code: one from 'function Keyword. Like the “var” keyword.' to the blue `function`, and another from 'The name of your function' to the green `functionName`.

FUNCTION CALLS

```
function helloWorld() {  
  console.log("Hello Functions");  
}
```

```
helloWorld(); //Prints "Hello Functions to the  
console.
```



The brackets execute the function.
Try calling the function without
them to see what happens.

FUNCTION ARGUMENTS

Arguments let you pass data into the function

```
function functionName(arg1, arg2) {  
    //Body of function  
}
```

A diagram illustrating the components of a function definition. A red arrow points from the text 'Arguments let you pass data into the function' to the arguments 'arg1, arg2' in the function signature. Another red arrow points from the text 'The functions executed code goes between the { } brackets. Much like an “if” statement.' to the body of the function, which is the code between the curly braces.

The functions executed code goes between the { } brackets. Much like an “if” statement.

FUNCTION ARGUMENTS

```
function addAndPrint(num1, num2) {  
    var sum = num1 + num2;  
    console.log(sum);  
}
```

```
addAndPrint(1, 2); // Result is 3
```

```
addAndPrint(8, 2); // Result is 10
```



CASH REGISTER

Anonymous vs. Named Functions

Return functions



WEATHER APPLICATION - PART 2

Temp Converter

WEATHER APPLICATION - PART 2

- Code the temperature converter application
- Complete Celsius to Fahrenheit code
- Add background changing functionality.

REVIEW: LEARNING OBJECTIVES

- Describe arguments as they relate to functions
- Predict values returned by a given function
- Differentiate between anonymous and named functions

HOMework

- **Review:**

Slides and Resources

- **Code:**

Re-create the weather widget app we began in class as a city widget web application that takes a user's input and updates the page's background and images to reflect the input (images provided).

See Week 5 Assignment folder for details.

JAVASCRIPT FUNCTION RESOURCES

- Mozilla MDN: [Function Guide](#)
- W3Schools: [JS Functions](#), [Function Definition](#), [Reserved Words](#)
- jQuery.com: [Named and Anonymous Functions](#)
- Further reading:
 - [Using Objects to Organize Your Code](#) via R. Murphey
 - [The Design of Code: Organizing JS](#) via A List Apart