RedMonk Q118 Programming Language Rankings **ASP** Objective-C R Ruby Visual Basic Matlab Perl Haske Assembly CIGUREY Popularity Rank on Stack Overflow (by # of Tags) 75 vlea F# Arduino ColdFusion Cuda **CoffeeScript** AstionScript Fortran Erlang Dart Rust Kotlin QML Scheme Tcl Elixir **OCaml** Processing mon Lisp VHDL Racket Mathematica Verilog 50 -Julia Protocol Buffer Emacs Lisp RobotFramework FreeMarker NSIS Pascal Web Ontology Language Smalltalk Yacc Cog Elm Objective-C++ SaltStack PostScript Gherkin TeX Perl6 Modelica 25 -BitBake PureScript SMT Crystal RAML API Blueprint MAXNIPpt WebAssembly M4 Chapel Logos Vim script Command Language Gosu Roff GAP SQF NikICL 1C Enterprise 25 75 100 0 Popularity Rank on GitHub (by # of Projects)

http://redmonk.com/sogrady/2018/03/07/language-rankings-1-18/

# How to Open Your Browser's JavaScript Console

## How to Open Your Browser's JavaScript Console

## Chrome:

Windows:

Мас:

Ctrl + Shift + J Cmd + Opt + J For Safari: enable web inspector first! 1. Choose Safari > Preferences, and click

Firefox:

Windows: Ctrl + Shift + K Cmd + Opt + K Mac:

Safari / Mac: Cmd + Opt + C

Advanced. 2. At the bottom of the pane, select the "Show Develop menu in menu bar"

checkbox.

3. Choose Develop > Show Web Inspector.

Chrome:

Windows:

Ctrl + Shift + J Cmd + Opt + J

Firefox:

||▶

Mac:

Windows: Ctrl + Shift + K Cmd + Opt + K Мас:

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Console

Console

top







top



>>

How to Open Your Browser's JavaScript Console



Filter you can type JavaScript code here!!

X

## How to Open Your Browser's JavaScript Console

>>

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Ctrl + Shift + J Cmd + Opt + J

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Mac:

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Cmd + Opt + K

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Safari / Mac: Cmd + Opt + C

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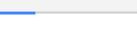


top

Ctrl + Shift + J

Cmd + Opt + J

Ctrl + Shift + K



>>

Advanced.

checkbox.















top

Console



>>





you can type JavaScript code here!!













#### Memory You can think of the computer's memory Value like a spreadsheet with two columns: name and value.

Name

Value

Value

Memory

You can think of the computer's memory like a spreadsheet with two columns: name and value.

The **let** keyword creates a new empty slot,

The = is called the "assignment operator".

Memory			
Value			

undefined

The let keyword creates a new empty slot, like a new "row" in the computer's memory.

Memory Value Name

like a new "row" in the computer's memory.

let x;

Χ

undefined

let x:

## Memory

Name

Name

Χ

Wichioty	
Name	Value
x	3

The = is called the "assignment operator". It assigns the value on the right into the slot for the variable name on the left.

$$x = 3;$$

Memory

Name

Χ

3

It assigns the value on the right into the slot for the variable name on the left.

$$x = 3;$$

Memory

ivicinory		
Name	Value	
Х	3	
greeting	"hi"	

You can also create a variable and assign a value to it all at once.

Memory

ivicino, y	
Name	Value
Х	3
greeting	"hi"

You can also create a variable and assign a value to it all at once.

Memory

Name

Value

Challenge: What will the memory look like after running the code below?

let someNum = 42; let zipCode = "90017"; someNum = 90000 + 17;let anotherVariable;

Memory

Value Name

Challenge:

What will the memory look like after running the code below?

let someNum = 42; let zipCode = "90017"; someNum = 90000 + 17;let anotherVariable;

### How to Link JavaScript Files to Your Web Page

#### index.html

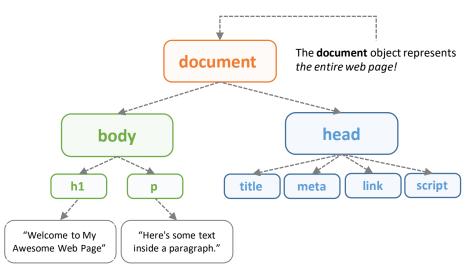
```
<!DOCTYPE html>
<html>
 <head>
 <title>Hello!</title>
 <meta charset="utf-8">
 <meta http-equiv="X-UA-Compatible" content="IE=edge">
 <meta name="viewport" content="width=device-width, initial-scale=1">
 <link rel="stylesheet" href="styles.css">
 <script src="script.js" defer></script>
 </head>
 <body>
 <h1>Welcome to My Awesome Web Page</h1>
 Here's some text inside a paragraph.
</body>
</html>
                           script.is
 // This line (which starts with two forward slashes) is a comment!
 // Comments are ignored by the computer.
 // They're great for writing notes to yourself, so use them ALL the time!
 console.log("Hello, world! This message comes from script.js");
```

- 1. The user navigates to the web page (something like <a href="http://example.com">http://example.com</a>)
- 2. Their web browser downloads the HTML file (index.html is the default home page)
- The <script> tag(s) in the HTML file tell the web browser which JavaScript file(s) to download next.
  - \*\* The **defer** keyword inside the <script> tag tells the browser to WAIT until the HTML has finished downloading, and THEN download the JavaScript file afterwards.
- 4. The browser downloads the specified JavaScript file(s) and executes their code in the order that they were downloaded. (And order *does* matter here!)
- The JavaScript code can then interact with the web browser, reacting to the user's actions and potentially modifying the HTML or CSS of the current web page.

### The Document Object Model (DOM)

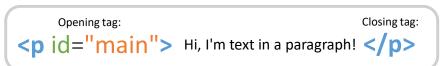
The Document Object Model (or **DOM**) refers to how the web browser sees a web page -- as a *hierarchy* of objects, just like how files and folders are organized on your computer.

We use the term **DOM element** to refer to parts of the web page, like a paragraph (), an image (<img>), a heading (<h1>), etc.



Each **element** can be a represented as a **JavaScript object** that contains LOTS of information about that element – for example, the text that appears inside the element, the background color of the element, etc.

### **Anatomy of an HTML Element**

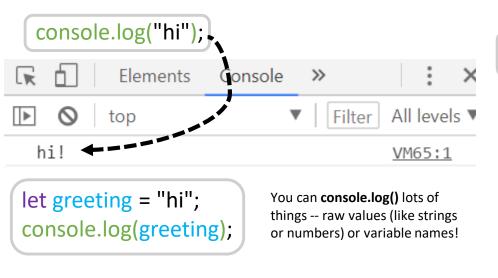


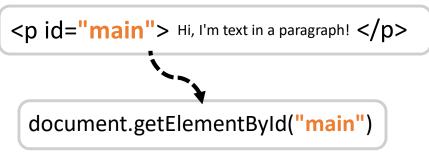
- The p tag stands for paragraph
- The id attribute gives the element a unique name sort of like a social security number!
- So this paragraph has an ID of "main" and it's the *only* element on the page with that unique ID.

### **Displaying Data in the Console**

## Accessing Elements by their unique ID

The console.log() function can display values inside the web browser's JavaScript console, so you can see what's happening inside your code!





### **Event Listener Example Code**

## Displaying Data inside Elements on the Web Page

```
.addEventListener("click", funcName);

function funcName () {

   console.log( "You clicked!" );
}
```

```
.textContent = "New text!";
```

You can access the **textContent** property of *any* **DOM element**.

#### For example:

```
document.body.textContent = "New text!";
document.getElementById("main").textContent = "New!";
```