ReactJs Bootcamp

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Tools

Text Editors

- Visual Studio Code
  - https://code.visualstudio.com/

- sublimetext
  - https://www.sublimetext.com/

- Atom
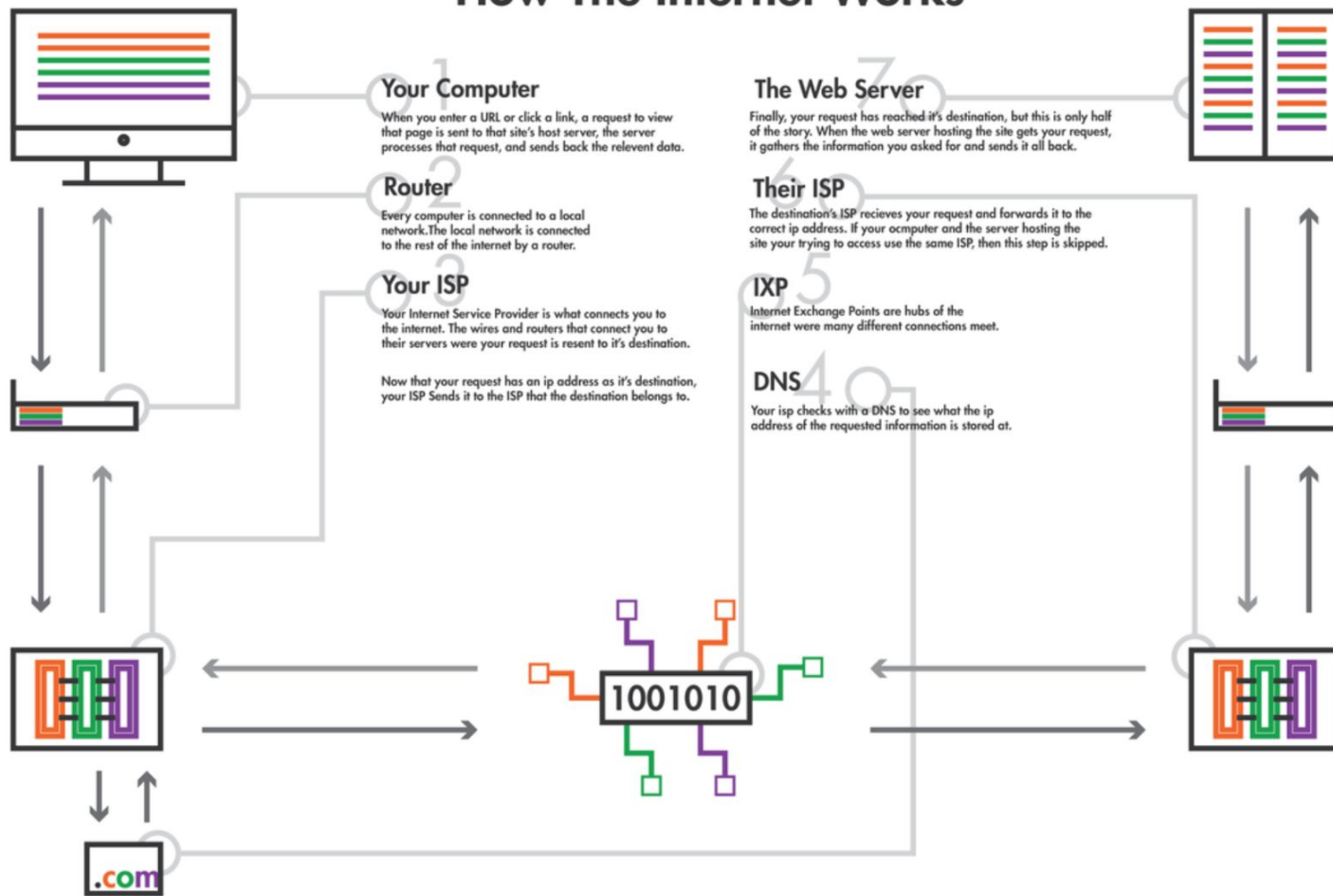 - https://atom.io/

What is the goal?

Create Web Application

- HTML
- CSS
- JavaScript
- Image, Video, ...

A web application (or web app) is application software that runs on a web server, unlike computer-based software programs that are run locally on the operating system (OS) of the device. Web applications are accessed by the user through a web browser with an active network connection. These applications are programmed using a client–server modeled structure—the user ("*client*") is provided *services* through an *off-site server* that is hosted by a third-party. Examples of commonly-used web applications include: web-mail, online retail sales, online banking, and online auctions.

How The Internet Works

Your Computer 1
When you enter a URL or click a link, a request to view that page is sent to that site's host server, the server processes that request, and sends back the relevent data.

Router 2
Every computer is connected to a local network. The local network is connected to the rest of the internet by a router.

Your ISP 3
Your Internet Service Provider is what connects you to the internet. The wires and routers that connect you to their servers were your request is resent to it's destination.

Now that your request has an ip address as it's destination, your ISP Sends it to the ISP that the destination belongs to.

The Web Server 7
Finally, your request has reached it's destination, but this is only half of the story. When the web server hosting the site gets your request, it gathers the information you asked for and sends it all back.

Their ISP 6
The destination's ISP recieves your request and forwards it to the correct ip address. If your ocmputer and the server hosting the site your trying to access use the same ISP, then this step is skipped.

IXP 5
Internet Exchange Points are hubs of the internet were many different connections meet.

DNS 4
Your isp checks with a DNS to see what the ip address of the requested information is stored at.

1001010

.com

What is Javascript?

What is Javascript?

JavaScript was first known as LiveScript, but Netscape changed its name to JavaScript, possibly because of the excitement being generated by Java. JavaScript made its first appearance in Netscape 2.0 in 1995 with the name LiveScript. The general-purpose core of the language has been embedded in Netscape, Internet Explorer, and other web browsers.
The standard of scripting languages like JavaScript is ECMAScript.

- What is ECMAScript?

ECMAScript

The full form of ECMA is European Computer Manufacturer's Association. ECMAScript is a Standard for scripting languages such as JavaScript, JScript, etc. It is a trademark scripting language specification. JavaScript is a language based on ECMAScript

Hello World!

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width,
initial-scale=1.0">
    <title>Hello World</title>
</head>
<body>
  <script src="./index.js"></script>
</body>
</html>
```
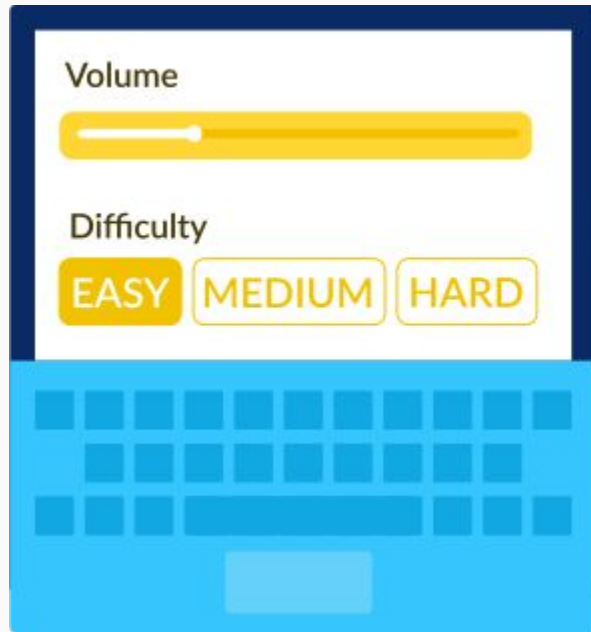
```
alert("hello world")
console.log("hello world")
document.getElementById("target-text").innerHTML = "hello world"
```

Variables

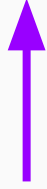variables are like boxes with labels in which different things can be placed and used when needed.

toys

books

tools

Variables

volume	3
difficulty	easy

Variables

`let myName = "Javascript"`

Keyword   Label   Assignment   Value

Variables

```
var isSummer = false // Do not use

// Can change
let age = 20

// Can not change
const name = 'Abase Bo Azar'
```

Basic Data Types

- Number

- String

- Boolean

Basic Data Types

```javascript
const myNumber = 123 // simple number

const myFloatNumber = 123.05 // float number

const negativeNumber = -123 // negative number

//------------------------------------------

// string with single quotation
const myText = 'This is a sample text between single quotes'

// string with double quotation
const myText = "This is a sample text between double quotes"

//------------------------------------------

const isDay = true

const isNight = false
```

operators

Arithmetic operators

result is number

Operator	Description
+	Addition
-	Subtraction
*	Multiplication
**	Exponentiation
/	Division
%	Modulus

String Operators

result is string


```
const firstName = "John";
const lastName = "Doe";
const fullName = text1 + " " + text2;
```

Logical & Comparison Operators

result is boolean

Operator	Description
==	equal to
===	equal value and equal type
!=	not equal
!==	not equal value or not equal type
>	greater than
<	less than
>=	greater than or equal to
<=	less than or equal to
&&	logical and
||	logical or
!	logical not

if / else

```
if (true) {
  console.log("that was true :-)")
} else {
  console.log("that was false :-(")
}
```

Function

```
function sum(a, b) {
  return a + b;
}
```

Challenge!

Create a program that takes the age in years and returns the age in days.

Notes

- Use 365 days as the length of a year for this challenge.
- Ignore leap years and days between last birthday and now.
- Expect only positive integer inputs.

Example

65 ⟶ **23725**

Create a program that takes a number and say is that even.

Notes

- result must be a boolean

Example

2 ———▶ **true**

3 ———▶ **false**

Create a function that takes a name and returns a greeting in the form of a string.

Notes

- The input is always a name (as string).
- Don't forget the exclamation mark!

Example

helloName("Tiffany") → "Hello Tiffany!"