Git'n Scriptin'

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Git Gud

- Git is a command line tool used for version control
- Version control is used for keeping track of changes
  - Good for group projects
- Millions of developers are using it
- Some employers will not take you seriously unless you have a GitHub

Why Learn Git?

- Cause you should.

Setting up Git

- Download Git for Windows here: https://git-scm.com/download/win
- If you're on Linux you probably already have it.

Setting up Git

- git config --global user.name “username”
- git config --global user.mail “me@mail.com”

Git Commands (Comprehensive)

- git init {name}
- git clone {url}
- git pull
  - git fetch
  - git merge
- git add .
- git commit –m “Subject” –m “Body”
- git push
- git status
- git checkout –b {branchName}
- git stash .
- git revert {commit id}

Git Commands (Essential)

- git clone {url}
- git pull
- git add .
- git commit –m “Subject” –m “Body”
- git push

GitHub

- Owned by Microsoft
- 40 million users
- Free web hosting for static websites
- Free organizations
- Issue tracking
- Task management

GitLab

- Alternative to GitHub
- Over 1 million users
- Just about all the same features as GitHub
- Free private repositories

GitLab

GitKraken

- Nice Windows GUI
- 1 million users
- Good Tracking System

axosoft GitKraken

Bitbucket

- Used to be popular
- Stay away from it
- Might have 100,000 users

Git Started

- www.github.com
- Make a repository named HelloWorld
  - Initialize with a README
    - https://github.com/adam-p/markdown-here/wiki/Markdown-Cheatsheet
- Create a new file called LICENSE
- Go to Git CMD and run the following command…

git clone https://github.com/{UserName}/HelloWorld

JavaScript

The Trifecta

History of JavaScript

- Made in 1995 based off of Netscape's ECMAScript in a joint collaboration between Sun Microsystems and Netscape.
- Oracle now owns the JavaScript trademark since they acquired Sun Microsystems.
- As of 2016 Google Chrome conforms to 93% of EcmaScript's features while Mozilla Firefox supports 77%.
- JavaScript is a web scripting language. EcmaScript is a standard that scripting languages conform to.

World of JavaScript

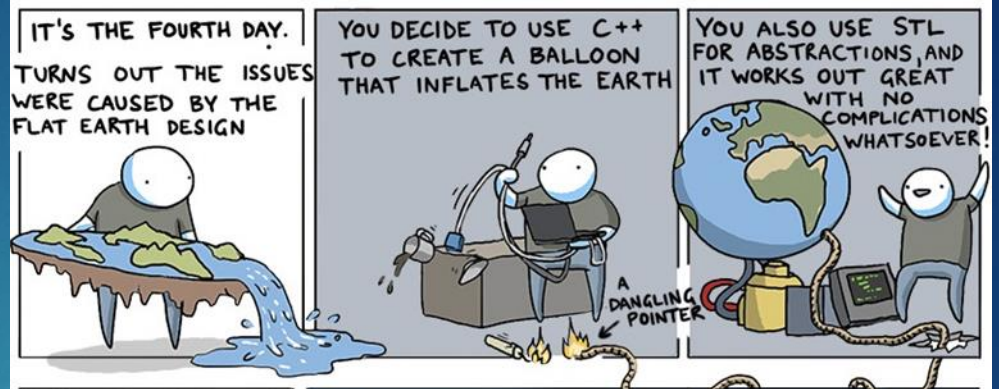
- JavaScript can literally do everything
- MEAN Stack
  - MongoDB – NoSQL database
  - Express – minimalist server-side framework
  - Angular – fast, modular client-side framework
  - Node.js – library that enhances the features of JavaScript
- Other popular JavaScript libraries
  - ReactJS – heavy load bearing client-side framework
  - Vue.js – lightweight, scalable client-side framework

IN THE BEGINNING,
THERE WAS THE HEAVEN AND THE EARTH
BUT THE EARTH WAS FORMLESS AND BUGGY,
& WITHOUT DOCUMENTATION
AND THE PROGRAMMER SAW THAT IT WAS NOT GOOD.

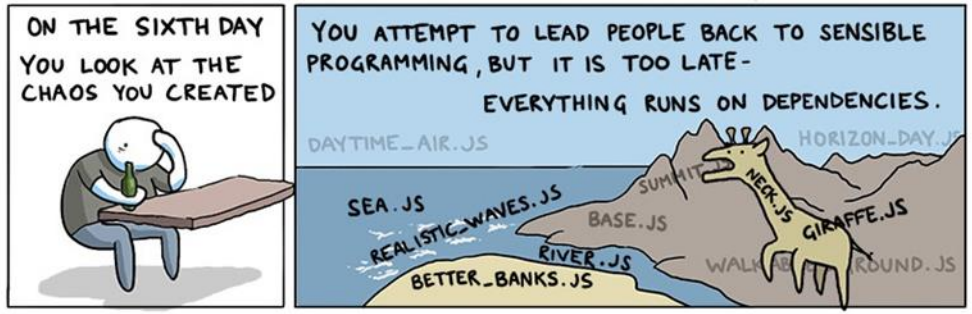
THEN YOU SAID "LET THERE BE LIGHT!"
BUT THE LIGHT DID NOT COMPILE.
YOU CREATE A HACK SO THAT LIGHT IS PART OF THE LAND
TO CREATE DARKNESS, YOU NEED TO HIDE THE LAND, BUT THAT'S OK CAUSE CREATURES WON'T BE ADDED UNTIL LATER.
AND STACKOVERFLOW SAID IT'S FINE

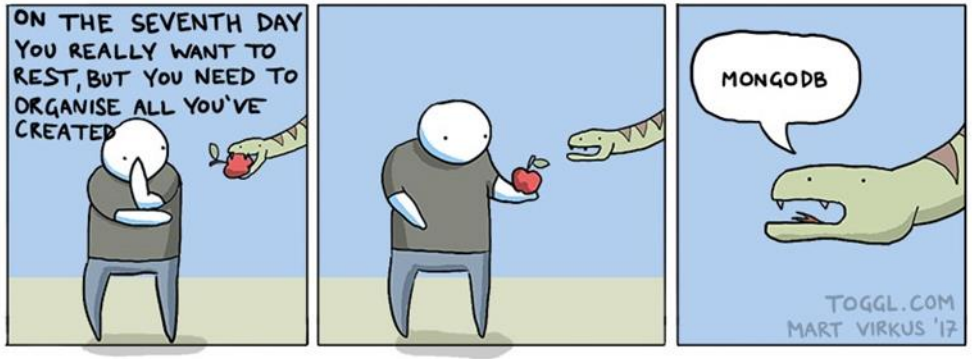
ON THE SECOND DAY, YOU MERGE WATER
BUT BECAUSE OF THE DEPENDENCY, LIGHT BREAKS AS LAND IS ACCIDENTALLY FLOODED
YOU CHECK STACKOVERFLOW (IN THE DARKNESS)

IT'S THE THIRD DAY.
TURNS OUT THE CREATURES NEEDED TO BE ADDED SOONER, BUT THE CLIENT FORGOT TO MENTION THAT.
YOU TRY TO ADD CREATURES IN THE DARKNESS, BUT THERE'S NO LAND WITHOUT LIGHT, AND YOU CAN'T HAVE LIGHT BECAUSE OF THE WATER.
YOU ADD THEM IN THE BROWSER USING COOKIES, WHICH UNFORTUNATELY MAKES THEM MORTAL


IT'S THE FOURTH DAY.
TURNS OUT THE ISSUES WERE CAUSED BY THE FLAT EARTH DESIGN
YOU DECIDE TO USE C++ TO CREATE A BALLOON THAT INFLATES THE EARTH
A DANGLING POINTER
YOU ALSO USE STL FOR ABSTRACTIONS, AND IT WORKS OUT GREAT WITH NO COMPLICATIONS WHATSOEVER!

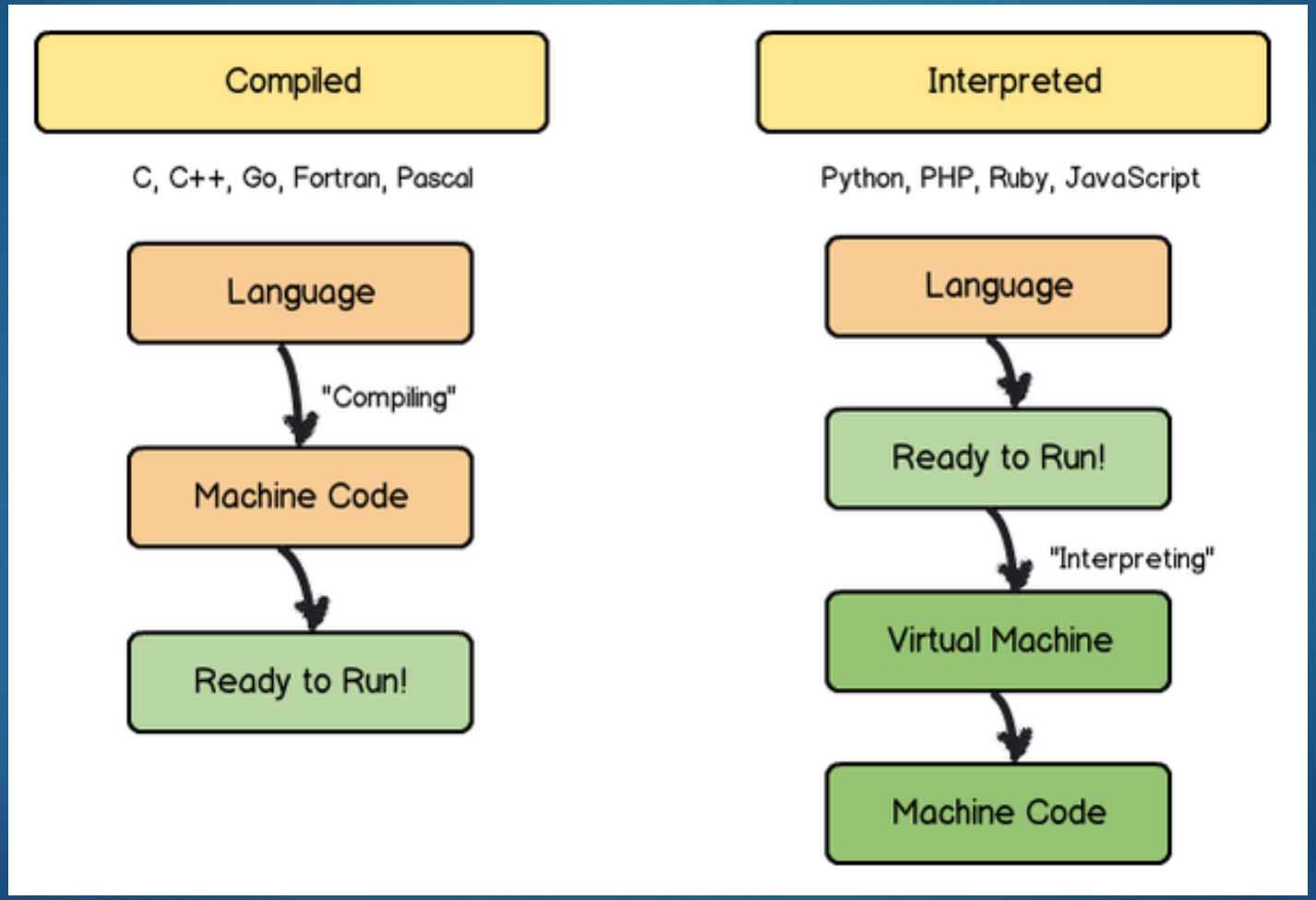
IT'S THE FIFTH DAY
YOU START ADDING PEOPLE TO HELP YOU.
YOU DECIDE TO CREATE THEM IN YOUR LIKENESS, WHICH IS A MISTAKE
THEY IMMEDIATELY POPULATE THE EARTH WITH HACKS, FADS AND UNNECESSARY JAVASCRIPT LIBRARIES
LEFT-PAD.JS
REACT
REACT
JESUS.J
REACT
FUCKIT.JS
JQUERY


ON THE SIXTH DAY
YOU LOOK AT THE CHAOS YOU CREATED
YOU ATTEMPT TO LEAD PEOPLE BACK TO SENSIBLE PROGRAMMING, BUT IT IS TOO LATE-
EVERYTHING RUNS ON DEPENDENCIES.
DAYTIME_AIR.JS
HORIZON_DAY.JS
SEA.JS
REALISTIC_WAVES.JS
BASE.JS
NECK.JS
GIRAFFE.JS
RIVER.JS
BETTER_BANKS.JS


ON THE SEVENTH DAY YOU REALLY WANT TO REST, BUT YOU NEED TO ORGANISE ALL YOU'VE CREATED
MONGODB
TOGGL.COM
MART VIRKUS '17

Features of JavaScript

Interpreted



Typing

- Weakly typed
  - Interpreter guesses the type for you
- Anything can go into an array
- 6 Primitives
  - String
  - Number
  - Boolean
  - Undefined – has no value assigned
  - Null – has a value of no value assigned
  - Symbol – used for unique identifiers

Equals vs Equals

==

Used for loose comparisons

1 == “1” returns true

1 == 1 returns true

===

Used for strict comparisons

1 === “1” returns false

1 === 1 returns true

Declaring Variables

- const
  - you guys know constants
- var
  - global / function scope
- let
  - block scope
  - rebinds when being iterated, so it's good for loops and recursion
  - read more here: http://www.jstips.co/en/javascript/keyword-var-vs-let/

```
const i = 7;
function hi(){
	if(0 == "0" && 0 == '0' && '0' == "0"){
		var s = ["Hello", "World", '!', 1];
		var len = s.length;
		var j = s;

		for(let s = 0; s < len; s++)
			console.log(j[s]);
		//var i = 5; //syntax error
		let i = 5;

		for(let i = 0; i < len; i++)
			console.log(s[i]); //prints array s
		console.log(i); //prints 5
	}
	console.log(i); //prints 7
}
```

```
<!DOCTYPE html>
<html lang="en-US">

<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width,initial-scale=1">
    <title>Hello</title>
    <script src="js/hello.js" type="text/javascript"></script>
</head>

<body>
    <script>hi();</script>
</body>

</html>
```

Git'n Script

- Add your JavaScript to your HelloWorld folder
- Run these commands…

git add .

you can also use **git add /all** or **git add ***

git commit –m "Subject" –m "Body"

git push

Pulling Data

- Go to GitHub
- Make a change to your README.md
  - ### by firstName lastName
- Go back to Git CMD
- Run the following command…

git pull

Congratulations!

YOU DID IT!