# Javascript

Web Tech Overview

- HTML is the car frame
- CSS is the body and the paint, tells you the details
- Javascript is the functionality of the car or the animation/ interactivity

All Javascript names

- Mocha
- LiveScript
- Jscript
- ECMAScript

Javascript is the world's most misunderstood programming language

- Often derided as being a toy
- Deceptively simple to start
- Wickedly powerful once mastered
- "Script" does not mean lesser language
- Script means interpreted language means compiled

History of Javascript

- Creates in 1995 by Brendan Eich at Netscape
- Javascript was first released to the public in version to of netscape
- First called livescript renamed because java was popular
- Java and javascript is completely different
- We write the two codes very differently
- A few months after the release of javascript, microsoft released the equivalent with internet explorer 3 called JScript
- Because microsoft had the same product netscape sent the language to ECMA International, a European Standards Organization, Fist standardization was born
- ECMA script is the official name of Javascript

Getting Started

- Displays the requested info in the console. Useful for debugging code.
- A large part of programming is experimentation
- Javascript does not know the difference between a single quote and an apostrophe
- To be more explicit add a backslash

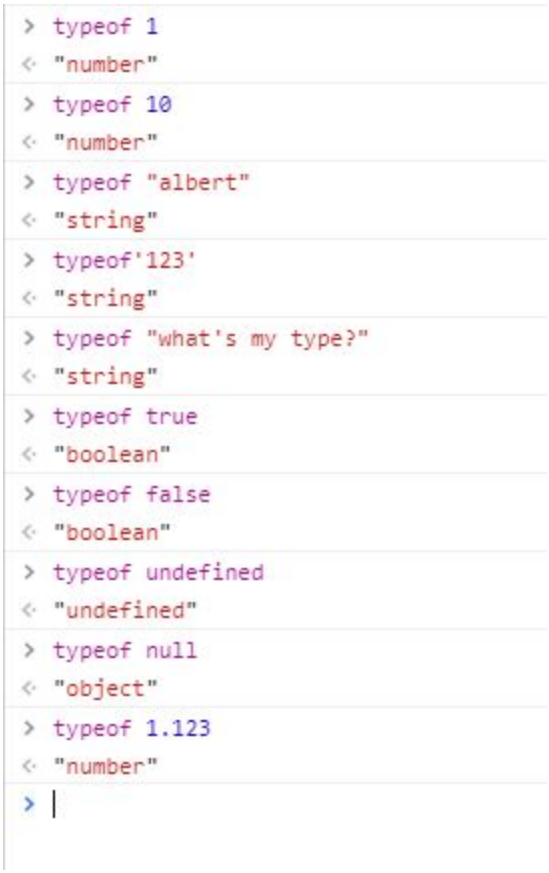
Data Types

- Define: data types are bits either 1 or 0, bits mean basically either on or off, data types are for different bits of information, also develop  expectations on how data can be used
- Typeof operator can explore javascripts data types

- A string is any collection of numbers
- When you put a quotations around one of the numbers you are trying to add javascript tries to make them both compatible
- Javascript sees anything in quotation marks as a string
- We have to provide context for javascript according to the rules
- Strings can be closed in single or double quotation marks
- Javascript also has the following primitive types
    - Boolean= True or False
    - Undefined= no value or type
    - Null= Empty Value

Javascript uses number like how we read them

- String are collections of characters
- A character is anything you can type on your keyboard
- We have to escape quotation marks when they are inside of a string
- When we add strings together this is called concatenation
- Template literal behave like strings instead they aren't wrapped in a single or double quote, they are wrapped in backticks
- Inserting strings into other strings is called interpolation
- Backsign and curly braces are used are not a common thing to be put out
- Javascript is an interpreted vs a compiled language
- Think of string interpolation as a sort of order of operations for javascript
- Parameters are placeholders that we put between the parentheses when declaring a function
- Arguments are only available within the function
- Most parameters are separated from a coma
- What matters with functions is not what the argument is called, but its location in the arguments list.
- Our functions are only logging the information in their local scope
- When we return inside a function, we're giving that value back to the world outside the function
- Byt wrapping a return in quotes it makes the console know we are returning a string, instead of just logging values
- If we don't return anything from a function, the function returns the default value,undefined,
-




# JS Functions

- Console.log is a great way to test out javascript
- Functions are ways of giving javascript instructions that is can run over and over again.
- A function is almost like a container for javascript
- Basic syntax of a  function is parentheses or curly braces
- We start with the function keyword, then the name, followed by parentheses. After we have a pair of curly braces
- We can use an argument to pass information to a function
- We can pass arguments to a function between its parentheses

# Git- Version management software

- Removes the need to copy files to and from the class share and your “H” drive
- Like using your camera to take a snapshot of you files at a specific point in time that you can magically go back to if terrible things happen
- GIT is a checkpoint for your files
- Exists so you can
    - Modify
    - Change
    - Break
    - improve...

Your code

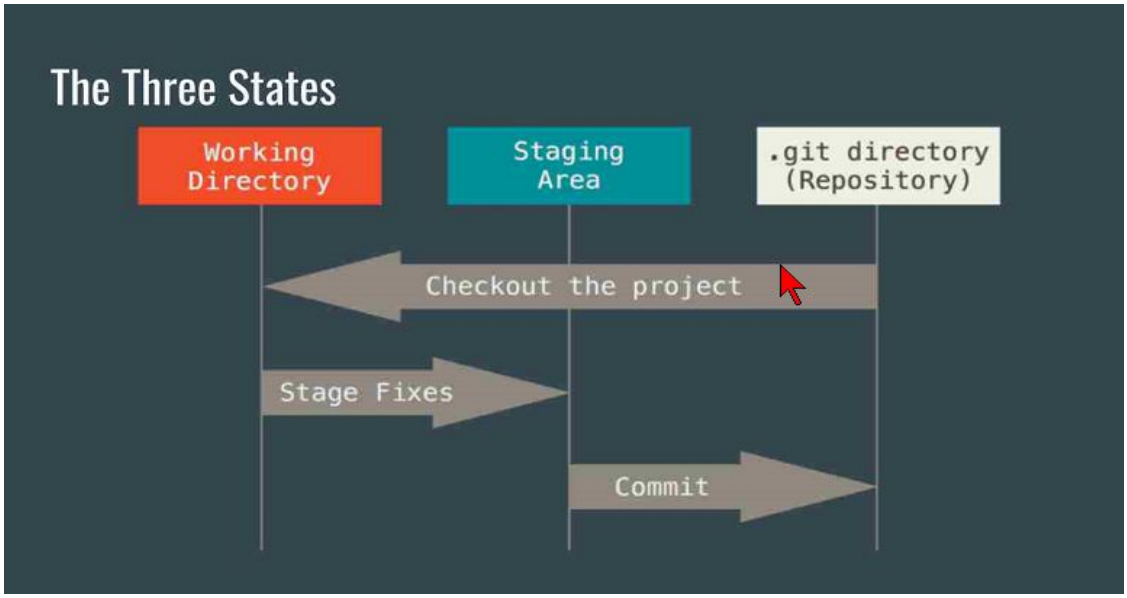
- Secure in the knowledge that you can not ruin your work too badly because you created save points along the way
- Collaboration tool that allows people to work on all the parts of a project at the same time
- Protects yourself and others from yourself and others

THE LOCAL WORKFLOW

- Getting started:
    - Open file explorer
    - Create folder named practice in “h”drive
    - Type cmd in address bar
    - Command prompt should open H:\practice>
    - Tell git to watch git init

- Git init create a repository in the folder you ran the command on
- Often shortened to repo, this is a hidden location where file checkpoints will be stored
- **DO NOT DELETE THE FOLDER**

  The three main states
    - Modified
        - Filed that are new or have changes not yet saves by git
    - Staged
        - The current version of a file, tagged to be included in the next commit
    - Committed
        - Files that are stored by git




Add an h2 that contains what you consider the big idea
Write a complete p that summarizes todays lesson
On a scale of 1 to 4 how would you rate your understanding
Add commit log your changes
Turn in your HTML file and screenshot

```
5704990@EB34 MINGW64 /h/HTML/flex
$ git init
Initialized empty Git repository in H:/HTML/flex/.git/

5704990@EB34 MINGW64 /h/HTML/flex (master)
$ git add.
git: 'add.' is not a git command. See 'git --help'.

The most similar command is
        add

5704990@EB34 MINGW64 /h/HTML/flex (master)
$ git commit -m "initial commit'
> ^C

5704990@EB34 MINGW64 /h/HTML/flex (master)
$ git add .

5704990@EB34 MINGW64 /h/HTML/flex (master)
$ git commit -m "initial commit'
>
> ^C

5704990@EB34 MINGW64 /h/HTML/flex (master)
$ git commit -m "initial commit"
[master (root-commit) b8c4900] initial commit
 Committer: PUENTE EMILY <5704990@cart.ads>
Your name and email address were configured automatically based
on your username and hostname. Please check that they are accurate.
You can suppress this message by setting them explicitly. Run the
following command and follow the instructions in your editor to edit
your configuration file:

    git config --global --edit

After doing this, you may fix the identity used for this commit with:

    git commit --amend --reset-author

 2 files changed, 111 insertions(+)
 create mode 100644 flex.html
 create mode 100644 flex1.css

5704990@EB34 MINGW64 /h/HTML/flex (master)
$ git commit -m "initial commit'
>
> git commit -m "initial commit"
> git remote add origin https://https://github.com/EmilyAPuente/flexbox-assignme
nt.git
> git push^C

5704990@EB34 MINGW64 /h/HTML/flex (master)
$ git remote add origin https://github.com/EmilyAPuente/flexbox-assignment.git

5704990@EB34 MINGW64 /h/HTML/flex (master)
$ git push -u origin master
git push
Counting objects: 4, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (4/4), done.
Writing objects: 100% (4/4), 1.02 KiB | 262.00 KiB/s, done.
Total 4 (delta 0), reused 0 (delta 0)
To https://github.com/EmilyAPuente/flexbox-assignment.git
 * [new branch]      master -> master
Branch 'master' set up to track remote branch 'master' from 'origin'.

5704990@EB34 MINGW64 /h/HTML/flex (master)
$ git push
Everything up-to-date

5704990@EB34 MINGW64 /h/HTML/flex (master)
```

# Working With Git

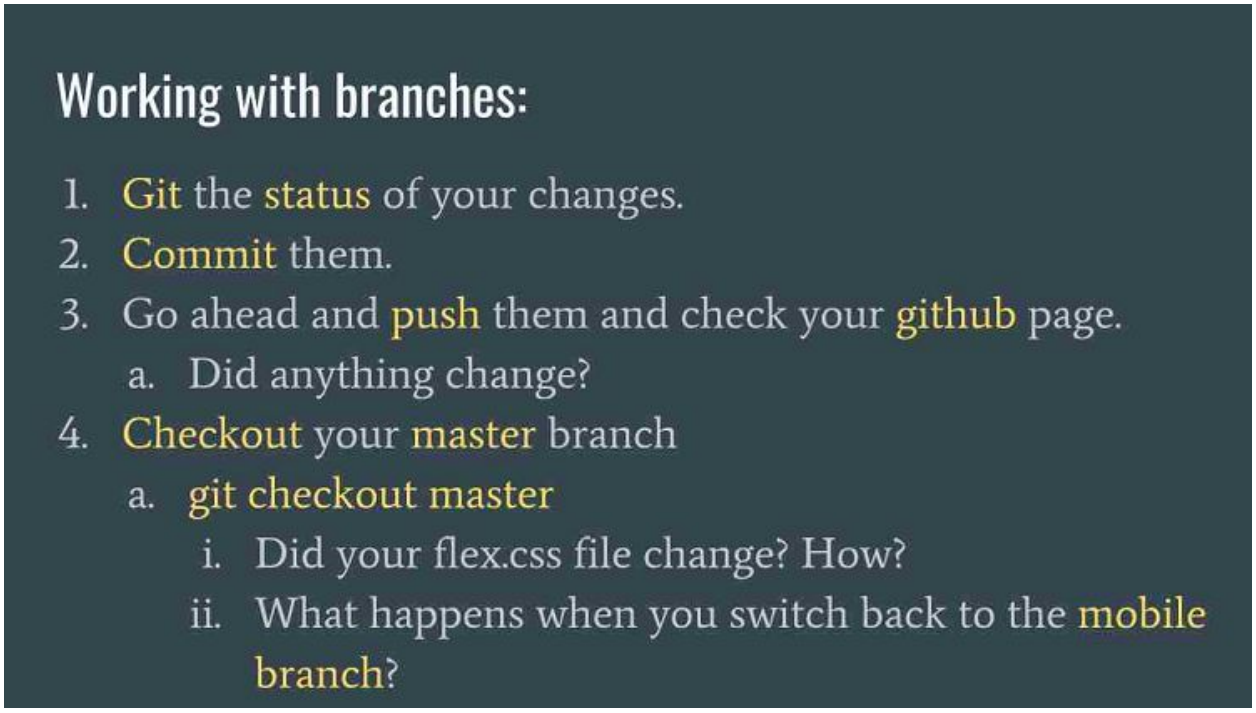
- Remote depository
    - Copy of project that is stored “in the cloud”
    - Where we backup our work and share it with others
    - Accessible anywhere there is an internet connection
- Git push tells git to upload all your changes to the server
- It DOES NOT need to be done after every commit

- Branches
    - Smaller bits from a tree trunk

    - Represent different versions of our code
    - Allow us to work on code fixes and features without breaking what we already have working
    - Fixes and new features should always start on a branch
- The master branch is the “trunk” of your code tree
- Master branch should only contain clean code ready for deployment
- Git branch <name> tells git to maintain a new copy of our code with the given name
- Git branch on its own will list the branches available and display an asterisk next to the one we are currently working on
- Git checkout <branch> tells git to switch our working folder to the branch name specified

## Working with Branches

- Git branch mobile
- Switch to our new branch
- Git checkout mobile
- To make sure your on the right branch type git branch




### Merge Conflict

- When a file has changed in both branches you are trying to combine
- Git can’t automatically determine what you want to keep
- Basically git is asking for help

Summary:

Today I started to understand more. And it's not as hard as I thought it was going to be. On a scale of 1-4 I think I would be a 3 because I know what to do but I am going to have to look at my notes a couple of times. It will take practice for me to get it down. I think the branching was what made me understand the best.