

HTML = Hypertext Markup Language

Uses tags to define content

`<p> (content)</p>`

Brackets

Modern text editor for markup and code

! Tab is format and p tab is paragraph

World Wide Web

Standard based

Published by W3C

World Wide Web consortium

W3Schools.com provides lessons and reference

`<h1-6>` titles and subtitles they order the importance

Only one h1

`` is bolding

`<i>` is italics

`` looks the same as bold

`` is emphasize looks like italics

Nested is next to each other

Cascading style sheets

Three location external sheet, style tag, or in html style class

Starts with a selector and ends with a soft bracket

55 different selectors

Inside the soft bracket you change properties

Last rule takes precedence

Never use inline styles

Select the html tag or select by class or an id which has to be unique to the page

CSS selectors

:Hover defines how the element is styled and how it looks

:Active used to style and select active link used with hover

:Checked marks or identifies the boxes or circles that the person has clicked on

: default selects the default form of a group of related elements

- :Attribute select elements with a specified attribute
- :Enabled matches every enabled element
- :First-child used to select the specified selector only if it's the first
- :only-child matches every element that is only child
- Element element everything in the first tag will be affected
- :link would style links to pages you haven't visited
- :not selects an element excludes it to being applied
- ::placeholder selects elements with placeholder text
- *selects all elements
- #id selects a specific element with the id tag
- : :selection matches a portion of an element selected by the user
- :lang used to select elements with lang attribute
- :first-of-type matches every element that is the first child
- :last-of-type matches every element of the last child
- :empty selects every tag that is empty
- :nth-of-type selects every element that is the nth child
- :nth-last-child used to match the elements with color
- :nth-child every nth child regardless of type
- :First-of-type the first of that type
- ::first-line every first line of p
- :optional selects form elements which are optional
- :only-of-type selects element that is an only child
- :required only works with form elements
- :target element link jumps to a targeted element
- :in-range specifies a value within a range
- :indeterminate when a box is undetermined
- :disabled targets disabled elements (elements that are not intractable with)
- :last-child targets the last element of a parent tag
- Element selects all elements with a specified name
- element , element selects different elements simultaneously
- :focus selects elements that have a focus
- :valid selects the elements with a value
- :invalid selects elements that do not validate
- attribute\$=value selects certain elements with an attribute at the end.

http-equiv="X-UA-Compatible" content="ie=edge" for backwards compatibility

name="viewport" content="width=device-width, initial-scale=1.0"

Responsive design

@media only screen and (max-width: ____px) 1024 common tablet 640 common phone

@media come after the normal css and in decreasing size

Max-width means up to the px

Form tag gets info from the visitor
Items go inside
Method get prints all info
Use method post
Input is self closing and has a type
Must have labels for all inputs

Html content car model: the frame or chassis
Css style and layout car model: body and paint
Javascript functionality, interactivity, animation car model: motor
Many names mocha livescript jscript **EMCAScript**
Most misunderstood programming language toy language simple to start powerful once mastered
Difference between a scripting language and programming language is scripting are interpreted and programming are compiled
Made in **1995** Brendan **Eich** at **Netscape**
Released in early 1996
Livescript was renamed due to **java** **not the same**
A few months after microsoft released the functionally equivalent jscript language with Internet explorer 3
Netscape submitted javascript to ECMA international
ECMAScript is the official name

Console.log displays requested info in the console useful for debugging code
Be more explicit with a back slash

Explain javascripts data types
Use the typeof operator to explore data types
All data is bits 1 and 0
We use data types for describing different bits of info
We can develop some expectations as to how the data can be used
2 is a number "2" is a string
The + changes from an add to a concatenate which pushes together
Order does not affect
2345 we think a sequence of numbers or 2345
Javascript can't do that it can only see numbers
Anything is " " is a string
we provide context
typeof 2 // "number" typeof "2" // "string" typeof '2' // "string"
typeof is a shortcut

Primitive types boolean(true or false) undefined(not set) null(nothing)

```
> typeof 1
< "number"
> typrof 10
Uncaught SyntaxError: Unexpected number VM261:1
> typeof 10
< "number"
> typeof 1.123
< "number"
> typeof "Albert"
< "string"
> typeof '123'
< "string"
> typeof "what's my type"
< "string"
> typeof true
< "boolean"
> typeof false
< "boolean"
> typeof undefined
< "undefined"
> typeof null
< "object"
>
```

Javascript treats all numbers as if they have decimal points even if they don't have one

Strings are straightforward they are collections of characters

We have to escape quotation marks when they're inside of a string

When we wrap a string in double quote marks we don't need to escape single quotes

Adding strings is concatenation

We can insert strings in strings- interpolation

Template literals act like strings but wrapped in backticks

The whole string is wrapped in backticks

Part that is interpolate is wrapped in \${}

Signals that the interpreter should evaluate what's inside

Using the console is good for testing functionality

Functions can be run again and again

Written with the function keywords

Function keyword followed by a name followed by parentheses then curly braces

Run by typing the name followed by ()

Argument to pass info to a function

Parameters are placeholders between parentheses

When we call the function we can pass arguments to it

Doesn't matter what it is called it only matters where it is placed

Only logging info in their local scope

By wrapping the return in quotes its letting us know it's a string

Run code under certain conditions

When we check for this statement we check for true or false

Var light = prompt ("is the light green, yellow, or red?")

if (L== G){

go()

}Else if(L==Y){

slow()

}Else{

stop()

}

If the thing is the () is true then it runs what's in the {}

Most comparisons come straight from math

<

>

<=

>=

Can't use = because that a setting for the value of a variable

Exact comparison is ===

Match value and type

== tries to coerce values and my not compare what you expect

Use ===

&&(and) and ||(or)

With && both statements must be true in order for the entire expression to be true

With || only one need to be true

Reads from left to right

Returns last statement

Only evaluates as many as necessary

In && if first is false won't look at second

In || if first is true then won't look at second

5===5&&1 returns 1

5===4&&0 returns false because it stops evaluteing

200<100|| 'alphabet' returns 'alphabet'

200>100||'treasure' returns true doesn't check the right side

Lets us control what blocks of code to execute using if else if and else

```

        if(something){
        //(B.O.B) do something
        }

```

If Truthy (so the boolean true or anything other than the empty string 0 false null or undefined)
the code runs' if not it's skipped
Ifs are used with an else clause

Else will execute if all other statements are false

Else if this is like an else but will only run if the condition is true and the previous is false

You can add an else after all statements

Anything after return won't get executed

We can use this to make code terser

Ternary is a shortcut for if-else

Tests a condition if true evaluates the left side of the : otherwise it evaluates the right

conditionToTest ? valueToBeReturnedIfTrue : valueToBeReturnedIfFalse

Switch statements are bif if/else if/else chains

The value of the expression is compared to the values of each case

```

        switch(expression){

```

```

            Case n://if case n is true

```

```

            break //will stop processing

```

```

            Case m:// if case m is true

```

```

            Default: //all other cases

```

```

            Return will halt execution

```

Return exits the block and returns a value break exits a block and does not have a value

How we select and manipulate html with javascript

It changes what we see not the actual html

Making changes to the dom we can change the way it displays even without changing the html

Current view of the browser can be manipulated without reloading a page

Html never changes after rendered

We can select a specific piece using javascript

I could erase my website.

Have draggable things

When a page loads its not javascript

The document is in tree form

Nodes

The highest level is the window next is the document

The window object has a large number of properties

innerWidth and innerHeight

The document object represents any page in the browser

- Contains all the nodes
- Use it to traverse the html and manipulate elements
 - All returns all nodes
 - contentType returns type of content
 - Add using appendChild
 - Remove using removeChild
 - Can be called on any node
- Node called element element.attributes access its attributes
 - And remove with removeAttribute
 - Modify the nodes style property
 - Listen for key presses or mouse events
 - addEventListener
 - getElementByTagName
 - All tags on page
 - querySelectorAll
 - All queries on the page
 - getElementById
 - the element with that id
 - getElementByClassName
 - Gets the elements with that class
 - Html class is className in javascript

```
.flex-container{
  Display: flex;
}
```

- A script is a series of instructions
 - Like a recipe or handbook or manual
- Recipes some are simple other are more complex and a lot of terminology
 - Hand books include steps for different scenarios
 - Manuals follow steps to check systems like an if statement
- Scripts are made of instructions a computer can follow step-by-step
 - First state goal and list tasks needed to complete goal
 - Start with big picture and break into smaller parts
 - 1 define the goal
 - 2 design the script split the goal out into a series of tasks
 - 3 code each step each step need to be written in a language the computer can understand
 - It pays to spend time designing
 - Need to get to grips with the vocab and syntax
 - Computers are logical and obedient
 - Need to be told every detail and will do it without question

Need to think like a computer

Git removes the need to copy files to and from the class share
Git is like taking a snapshot of your files at a specific point in time
Git is a checkpoint for you files
modify/ change/ break/ improve your code
A collaboration tool that allows different people to work on all parts of a project
Protects you from yourself and others
Creates a repository in the folder you ran the command on
Modified files that are new or changed that have not been saved
Staged the current version of the file and commit
Committed files that are safely stored by Git
Git init to start
Git tracks changes by git status
Git add (file)
Commit the box to storage and note what it contains
Until we commit there is no checkpoint
Moving into longer term storage
It does not move or remove files from the working directory

Remote repository

Push local files to remote files

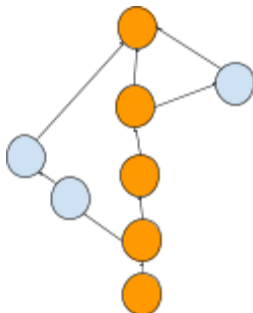
Learn branches

Learn to merge

How to fix a merge conflict

Remote repository is a “cloud”

Do not push every time
Branches are smaller bits of info
They are different versions of code
Branches allow us to fix code without breaking the master
Fixes and new features should always start on a branch
Master is trunk
Should only contain clean code



Git branch makes a new branch

Git checkout changes branch

Git merge (branch) merges branches together

Merge conflict is when file has changed in both of the branches

To fix delete code you don't want and then add and commit

It can help by being able to work on the same document at once. You can work on the same document and be able to work without messing each other up. You can also work on a file that's not the main file so if you mess something up you still have working code. You will also be able to see what work your partner has done and be able to implement similar lines of code into the master.

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No questions