```
JavaScript language
Variables
var hello = "Good day. my friend!"
var result = 500 * 10 + 3
Data types
Strings
// svntax
"This is a string."
"123456789abcde"
"!@#$%^&*()"
'A string can also be in single quotes'
Numbers
42
100
-256
3.141592653589793
99,999
-128.6
// arithmetic operators
        // addition
5 + 5
       // subtraction
10 - 5
20 * 20 // multiplication
100 / 20 // division
104 % 5 // modulus (remainder)
// comparison operators
10 == 10
          // equality
5!= 6
          // inequality
30 > 20
          // greater than
          // less than
10 < 15
5 >= 5
           // greater than or equal
99 \leftarrow 100 // less than or equal
Rooleans
// svntax
true
false
```

```
Arravs
// an array of strings
["a", "b", "c", "d", "e", "f", "g", "h"]
// an array of objects
[{language: "JavaScript", usage: "frontend"},
{language: "Ruby", usage: "backend"},
{language: "Swift", usage: "mobile"}]
// array methods for array of letters
// accessing
var letters = ["a", "b", "c", "d", "e", "f", "g", "h"]
letters[0] // returns "a"
letters[7] // returns "h"
// updating
// if we want to change "a" and "b":
letters[0] = "apples"
letters[1] = "bananas"
// inserting
letters.push("elephant") // adds "elephant" to the end
letters.unshift("zebra") // adds "zebra" to the beginning
// removing
letters.pop() // removes and returns the last element
letters.shift() // removes and returns the first element
// arrav length property
// remember, no parens to access a property
letters.length
Objects
// property names and values
{name: "Sam", age: 28, sex: "male"}
// accessing
person.name
               // returns "Sam"
person["name"] // returns "Sam"
// updating
person.name = "Samuel" // name now contains "Samuel"
person["name"] = "Samuel" // name now contains "Samuel"
// inserting (like updating but with a new property)
person.gender = "cis male"
person["gender"] = "cis male"
// removing
delete person.sex
```

```
Loops
// while loop
var counter = 1:
while (counter <= 10) {</pre>
  console.log("I'm counting in multiples of five!");
  console.log("Here's what's next: " + counter * 5)
 counter++
// for loop
for (var counter = 1: counter <= 10: counter++) {</pre>
  console.log("I'm counting in multiples of five!");
 console.log("Here's what's next: " + counter * 5)
// looping over collections
var letters = ["a", "b", "c", "d", "e", "f", "g", "h"];
for (var i = 0; i < letters.length; i++) {</pre>
  console.log(letters[i]);
Conditionals
// example
var age = prompt("How old are you?");
if (age >= 18) {
  alert("Welcome to this program!");
  alert("Sorry, you must be 18 or over to use this program.");
Functions
// defining functions
var create_greeting = function(name)
 return "Welcome to my website, " + name + "!";
end
// calling functions
create_greeting("Sam")
```

```
jQuery
Selecting elements
// to select all paragraph elements:
$("p")
// to select all elements with the class 'shadow':
$(".shadow")
// to select the element with the id 'main-container':
$("#main-container")
jQuery methods
Changing css properties
// change the background of all paragraphs to aqua
$("p").css("background-color", "agua");
Listening for click events
$("#load-tweets-button").click(function() {
 alert("Button clicked!");
Appending elements inside other elements
$("#main-container").append("A friendly paragraph!");
```

devbcotcamp