

Nation Code

Intro to Javascript





Let's start from the beginning

**Open a new folder in VS Code and
create a file called `intro.js`**



print()?

Add to your file
console.log('Hello World!')

Run using the debugger



Variables

Python

variable = 'Hello, world!'

Javascript

let variable = 'Hello, world!'

There's a couple of other ways as well!

let variable = 'Hello, world!'

var variable = 'Hello, world!'

const variable = 'Hello, world!'

Have a go at printing out the **variable.**

```
let variable = 'Hello, world!'
```

```
console.log(variable)
```



Data Types

**Most data types look the same we just
give them different names**

[] Array

{ } Object



If/else

```
let name = 'Sam'
```

```
if (name == 'Sam') {  
    console.log('Great name!')  
}  
else if (name == 'Stuart') {  
    console.log('Less great name!')  
}  
else {  
    console.log('Oh dear...')  
}
```

Looks similar to Python

But it could look like this...


```
let name = 'Sam'; if (name == 'Sam') {console.log('Great name!')}  
else if (name == 'Stuart') {console.log('Less great name!')}else {console.log('Oh dear...')}
```

**Instead of having indents we
have brackets and semicolons
showing where a block of code
begins and ends**



For loops

```
for i in range(5):  
    print(i)
```

```
for (i=0; i<5; i++) {  
    console.log(i)  
}
```

```
names = ['Sam', 'Stuart', 'Liam', 'Ezra']
```

```
for i in names:
```

```
    print(i)
```

```
let names = ['Sam', 'Stuart', 'Liam', 'Ezra']
```

```
for (i=0; i< names.length; i++) {
```

```
    console.log(names[i])
```

```
}
```



Functions

```
def my_func(a_string):
```

```
    print(a_string)
```

```
my_func('hello')
```

```
const my_func = (a_string) => {
```

```
    console.log(a_string)
```

```
}
```

```
my_func('hello')
```

snake_case_is_not_required_anymore

camelCaseHowJavascriptDevsDolt

bloodyJavaScriptDevs


```
def my_func(a_string):  
    return a_string  
print(my_func('hello'))
```

```
const my_func = (a_string) => {  
    return(a_string)  
}  
console.log(my_func('hello'))
```

Just like in Python you can combine all these. You can have if statements in for loops in functions!



Library imports

**Let's make a random
number generator**

In Python

```
import random
```

```
print(random.randint(0,9))
```

In Javascript

```
console.log(Math.random())
```

In Javascript

console.log(Math.random() * 10)

In Javascript

```
console.log(Math.floor(Math.random() * 10))
```




Challenges

Some of these challenges may look familiar, have a go at them in Javascript

**I've not told you everything you need to
know so you'll need to do a bit of
googling!**

Challenge 1:

Create a variable called password.

Check how many letters are in the password, if there are less than 8 log to the console that the password is too short. Otherwise log the password to the console.

Challenge 2:

Create a variable called num.

Check if the variable is divisible by 3 or 5. If it is log "This number is divisible by 3 or 5" to the console. Otherwise log "This number is not divisible by 3 or 5".

Challenge 3:

Create a variable called num.

If num is divisible by 3 log "fizz" to the console, if it's divisible by 5 log "buzz" to the console, if it's divisible by both 3 and 5 log "fizz buzz" to the console. Otherwise log num to the console.

Challenge 4:

Create a function that takes a number as a parameter and adds one.

Challenge 5:

Create a function that takes two numbers and an operator as parameters. It should return a print out of the sum e.g. "1 + 2 = 3" or "4 x 6 = 24".

Challenge 6:

Create a function that takes two strings as a parameters and returns the strings concatenated.

Challenge 7:

If we list all the natural numbers below 10 that are multiples of 3 or 5, we get 3, 5, 6 and 9. The sum of these multiples is 23.

Find the sum of all the multiples of 3 or 5 below 1000.

Challenge 8:

If I add up the digits of the number 19082 I would get $1+9+0+8+2=20$. Add the digits of the number:

371072875339021027987979982208375902465101357402504637693767749000971264812489697007
805041701826053874324986199524741059

Challenge 9:

Calculate the number of days till Christmas.

Challenge 10:

Write a function that takes two numbers as parameters and returns a random number between them.

Challenge 11:

Write a function that given a radius returns the circumference of a circle. ($2 * \pi * \text{radius}$)



Questions?