Javascript Basics

The Fizz-Buzz Test

Let's solve a common software developer interview problem: the [Fizz-Buzz test](#):

> "Write a program that prints the numbers from 1 to 100. But for multiples of three print "Fizz" instead of the number and for the multiples of five print "Buzz". For numbers which are multiples of both three and five print "FizzBuzz"."

If you know how to solve this, you'll be more qualified to be a programmer than the majority of greenhorn college graduates.

I'll create a web page and external script file for this.

The loop parameters are straightforward: start at 1, continue until i is not greater than or equal to 100, increment by 1. And print each number.

```
for (var i = 1; i <= 100; i++) {
  console.log(i)
}
```

In order to check if `i` is a multiple of 3, we can use the modulus or remainder operator. This operator returns the remainder of what the former operand is divided by the latter.

```
1 % 3
1
2 % 3
2
3 % 3
0
4 % 3
1
5 % 3
2
6 % 3
0
```

When `i` is divided by 3, the modulus operator will return 0. Knowing that, we can update the for loop logic:

```
for (var i = 1; i <= 100; i++) {
  if (i % 3 === 0) {
    console.log('Fizz')
    continue
  }
  console.log(i)
}
```

For Buzz, we'll get the modulus of 5.

```
for (var i = 1; i <= 100; i++) {
  if (i % 3 === 0) {
    console.log('Fizz')
    continue
  }
  if (i % 5 === 0) {
    console.log('Buzz')
    continue
  }
  console.log(i)
}
```

When the number is divisible by both 3 and 5, we need to output 'FizzBuzz':

```
for (var i = 1; i <= 100; i++) {
  if (i % 3 === 0 && i % 5 === 0) {
    console.log('FizzBuzz')
    continue
  }
  if (i % 3 === 0) {
    console.log('Fizz')
    continue
  }
  if (i % 5 === 0) {
    console.log('Buzz')
    continue
  }
  console.log(i)
}
```

There are a number of ways to solve Fizz-Buzz. They all typically make use of a programming loop of some kind though.

```
for(i=0;i++<100;)console.log(((i%3?'':'Fizz')+(i%5?'':'Buzz'))||i)
```