JavaScript loops Taken from dofactory.com

JavaScript loops are used to repeatedly run a block of code - until a certain condition is met. When developers talk about iteration or **iterating over**, say, an array, it is the same as looping. JavaScript offers several options to repeatedly run a block of code, including while, do while, for and for-in.

The ‘while’ loop

1. var sum = 0;
2. var number = 1;
3. while (number <= 50) { // -- condition
4. sum += number; // -- body
5. number++; // -- updater
6. }
7. alert("Sum = " + sum); // => Sum = 1275

The condition is first evaluated. If true, the block of statements following the while statement is executed. This is repeated until the condition becomes false. This is known as a *pre-test loop* because the condition is evaluated before the block is executed.

The number++ statement is called the *updater*. Removing it will result in an ***infinite loop***. You must always include a statement in a loop that guarantees the termination of the loop or else you'll run into this problem.

Your own example:

The ‘for’ loop

1. var sum = 0;
2. for (var i = 1; i <= 50; i++) {
3. sum = sum + i;
4. }
5. alert("Sum = " + sum); // => Sum = 1275

The most frequently used loop in JavaScript is the for-loop. It consists of three parts, separated by semicolons. The first is the *initializer* (var i = 1) which is executed only once at the start. The second is a *test condition* (i <= 50). The body of the loop is executed on when the test condition is true. When false, the loop terminates. The *updater* (i++) is invoked after each iteration. The updater typically counts up or counts down.

When to use *for* vs. *while*

In a for loop, all three parts i.e. **initializer**, **test condition**, and **updater** are written together in a single line (called an iteration statement), whereas in a while loop, they're scattered and lie at different places. This makes a for-loop more readable than a while-loop and as a result, more easily maintainable.

So when do we use for and when while? **If the number of iterations is known use the for-loop. If you want to loop until a certain condition is met use the while-loop.**

Your own example: