Common Mistakes

This lesson discusses some of the common mistakes that programmers make while using loops in their code.

WE'LL COVER THE FOLLOWING

- Infinite `while` Loop
- Manipulating a `for` Loop Counter

Infinite `while` Loop

The main risk with `while` loops is producing an *infinite loop*, meaning the condition is always true, and the code runs forever. This will crash your program! For example, let's say you forget a code line that increments the `number` variable.

```
let number = 1;
while (number <= 5) {
  console.log(number);
  // The number variable is never updated: the loop condition stays true forever
}
```

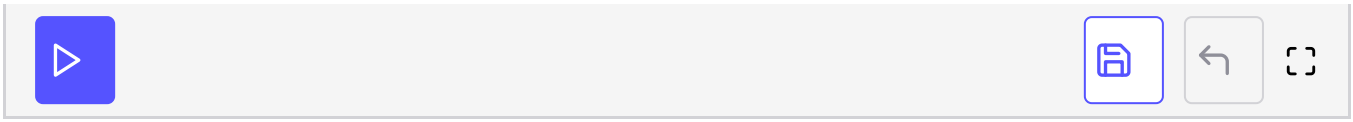
To protect yourself from infinite loops, you have to make sure the loop condition will eventually become false.

Manipulating a `for` Loop Counter

Imagine that you accidentally modify the loop counter in the loop body, just like in the following example.

```
for (let i = 1; i <= 5; i++) {
  console.log(i);
```

```
  i++; // The i variable is updated in the loop body
}
```



Each time the loop runs, the counter variable is incremented twice: once in the body and once in the final expression after the loop runs. When you're using a `for` loop, you'll almost always want to omit anything to do with the counter inside the body of your loop. Just leave it in that first line!