



SY110

Programs – Loops

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1 Review

2 Loops



What we talked about last time

- Conditionals – `if` statements
- In JavaScript , the block of code run if the conditional is true enclosed by `{}`
- Can be followed with an `else if`, `else`, etc
- Comparison operators – `==`, `!=`, `<`, `>`, `<=`, `>=`
- Boolean operators – `&&`, `||`



What if we want to continue performing an action until a certain condition is met, or while a particular property is true? e.g. sum the numbers from 1 to 10?

Up until now...

We would write:

```
alert(1+2+3+4+5+6+7+8+9+10)
```

How does that scale?

What if we want to sum the numbers between 1 and 1,000? Or 1,000,000? Or between 1 and x , where x is some number specified by the user?

There must be a better way...



Loops allow us to execute a block of code until a certain condition is reached.

Non-programming example

- While (I'm in SY110)
 - ▶ I'm feeling happy

JavaScript example

```
var sum = 0;
var k = 1;
while (k <= 10){
  sum += k;
  k += 1;
}
alert(sum);
```





Questions?