

# Loops

CS 101 – Spring 2018

# The **while** loop

As with conditional statements, this takes a conditional statement – one that evaluates to either **True** or **False**

new keyword

```
while condition:  
    statement 1  
    statement 2
```

...

Like functions and conditionals, loops use **blocks** using colons and indentation. If the condition is **True**, all of the statements in the block will be executed. When the end of the block is reached, the conditional will be checked again. If it is still **True**, the process will repeat.

One of these statements must have the ability to change the condition, or this is an **infinite loop**.

# The **for** loop

The loop is run once for every item in this sequence

new keywords

```
for variable in sequence:  
    statement 1  
    statement 2
```

This variable contains the current item from the sequence.

...

Another block-based statement.

# Loops / Iteration

Use a **while** loop: to continue doing something an unspecified number of times

Use a **for** loop: to iterate over a collection or do something a specific number of times