

## Python Crash Course 3

In this section we will learn how to deal with two types of loops. The for loop and the while loop.

### What are Loops?

Loops help us repeat actions without having to write the same code multiple times. There are two main types of loops in Python:

**For Loops** – Used when we know how many times we want to repeat something.

**While Loops** – Used when we want to repeat something until a condition is met.

```
In [ ]: #This is an example of a for loop. This loop will count from i=0 to i=4, which  
for i in range(5):  
    print(f"This is loop number {i}")
```

```
In [ ]: # Create a for loop that will print all the numebrs from 0 to 20.
```

```
In [ ]: # Modify your last code using an if statement to print "We can fit more people"  
# if less than 10, or "We can't fit more people." if greater than 10.
```

```
In [ ]: # Create code that asks the user a number they would like to count up to (be  
# If their input is greater than 100 or less than 10 ask them to retype it.  
# If there number is inbetween, count up to the number.
```

### While Loops

While loops are often used while waiting for a condition to be met. Such as when a certain phrase is entered, a certain time is reached, or etc.

```
In [ ]: count = 5  
  
while count > 0:  
    print(f"Countdown: {count}")  
    count -= 1 # Decrease count by 1  
  
print("Blast off!")
```

```
In [ ]: answer = ""
```

```
while answer != "python":  
    answer = input("What is the best programming language? ").lower()  
  
print("Correct! Python is awesome!")
```