



Tutorial

CPSC 217

Looping in Python

- Till now, you have probably noticed that we are writing codes that can be **executed only once**! We have written some cool programs with the previous structures; however, doing everything only once is actually in contrast with the nature of programming! Computers are built to **do similar tasks over and over again** and we, as the programmers, have to write codes for that.
- To accomplish this, we need to **use loops**. Loops are structures that are used to execute **a code block repeatedly**. However, you should always have in mind that loops **HAVE TO BE TERMINATED**! In fact, there should be some “**conditional statement**” which is evaluated in each iteration, and is guaranteed to **become false at some point**!



For loop

- Used when you know the range (Definite loop)

Code 1:

```
for x in [1,2,3,4,5,6,7,8,9,10]:  
    print(x, end = ',')
```

Code 2:

```
for x in ['ab','cd','ef','gh','ij']:  
    print(x, end = ',')
```

For loop

- Used when you know the range (Definite loop)

(Start, End-1, Step-size)

Code 3:

```
for it in range(1,11,1):  
    print(it, end = ',')
```

Practice 1

- Try to replicate the following drawing using simple graphics, for loop, and if-else structure.

