

# Introduction to Loop's

- Loops are also called as repeating statements.

The loops are of 2 types in python

- I. while loop
- II. for loop

- If you want a set of statements to repeat again and again in the program then we use loops. The statements can repeat either **'for number of times'** or **'As long as the condition is true'**
- In **while condition**, If the condition is true, the while block will get executed. After the execution it will go back again and check the condition, if again the condition is true it'll get executed, once the condition becomes false it'll stop the execution.

Syntax : while **condition** :  
Statements

- Whatever condition you are using in while you should modify it in the statements else your loop will not work properly.

**Example 1 :** ( statements repeating number of times )

Q) Print hello 10 times using while loop.

#in while loop use the counter as condition and set its value from 1 -10 , modify the counter in the statements and get the result.

```
count = 0
while count < 10: # condition saying count should be less than or equal to 10
    print(count+1, 'hello') # when count is increased print hello , starting count value should start from 1
    count = count + 1 # modifying the count
```

Output :

```
1 hello
2 hello
3 hello
4 hello
5 hello
6 hello
7 hello
8 hello
9 hello
10 hello
```

**Example 2 :** ( As long as the condition is true )

Q) Write a program to print output of the given number from last to first.

# Take input from users in integer form , the condition should be a number greater than zero and divide the number and print its result in integer form only.

```
n = int(input('enter a number : ')) # typecasting input into integer value
while n > 0:
    r = n % 10 # dividing n by 10
    n = n // 10 # if given n value gives float as result upon dividing by 10 then convert it into integer using //
    print(r)
```

Output :

```
enter a number : 1245
5
4
2
1
```