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Introduction to Loops

by

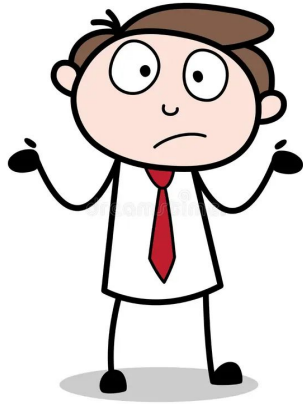
C02: Fundamentals of Programming

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Quick Recap :

When **you know**
ahead of time **how**
many iterations
you need



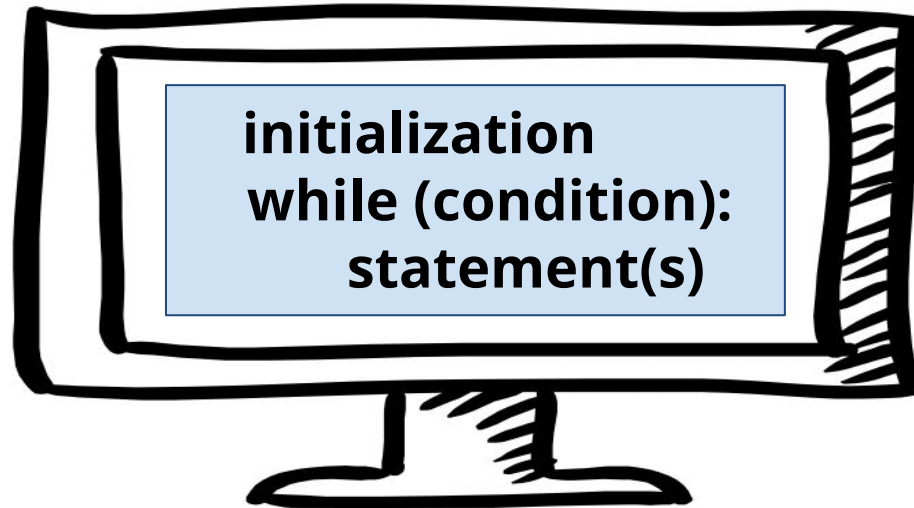
When **you**
don't know



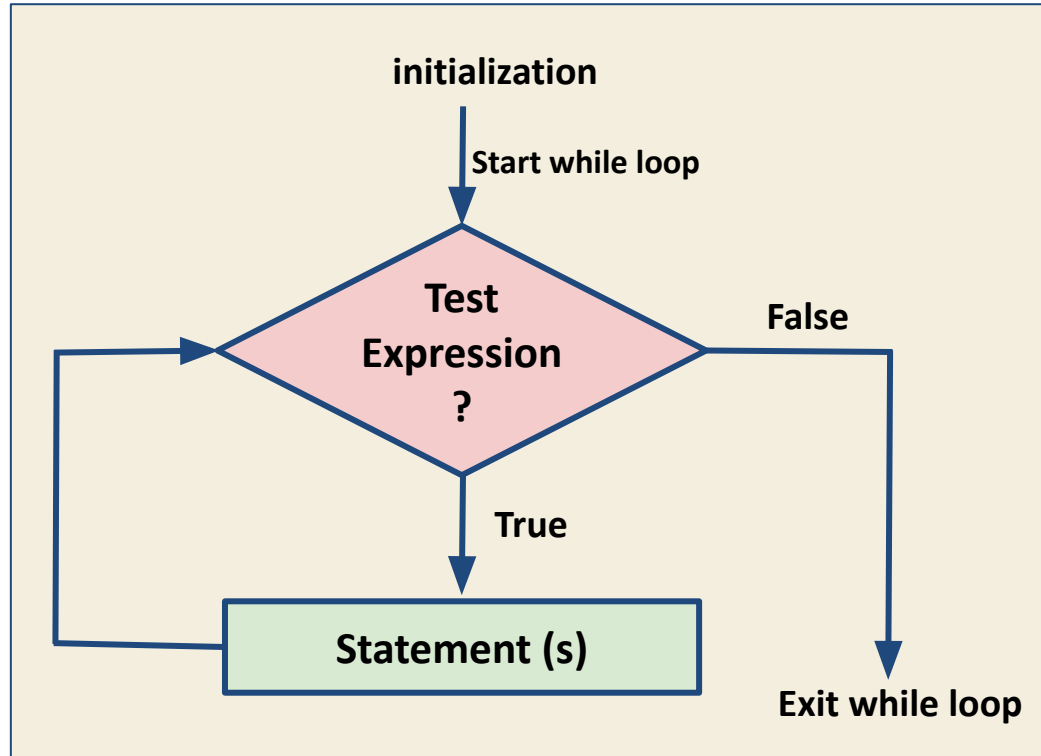
While Loop :

A **while** loop is used to execute a set of statements as long as a condition is true.

Syntax :-



While Loop :



Let's Practice on the Playground!

Coding Assignment!

Question - 1 : Factorial-Loops

You are given a positive integer N. Your task is to compute and print the factorial of N.

Example 1 : Input N = 3

Output :

6

Example 2 : Input N = 5

Output :

120

Question - 2 : Digit Sum using Loop

You are given a positive integer N. Your task is to find the sum of digits of the given number.

Example 1 : Input N = 362

Output : 11

Hint : $3+6+2 = 11$

Example 2 : N = 28393

Output : 25

Hint : $2+8+3+9+3 = 25$

Question - 3 : Check if a Number is a Palindrome

Given a positive integer N, determine whether it is a palindrome or not ?.

Example 1 : Input N = 348

Output :

Example 2 : Input N = 5665

Output :

Guess the Output ?

```
counter = 1
while (counter <= 5):
    print("I am Krishna")
```

[Code Snippet](#)



Infinite Loop :

This means the message "I am Krishna" will keep printing forever, unless the program is manually stopped or the system crashes.

```
counter = 1
while (counter <= 5):
    print("I am Krishna")
```

Infinite Loop : correct code

```
counter = 1
while (counter <= 5):
    print("I am Krishna")
    counter = counter + 1
```

Output

```
I am Krishna
I am Krishna
I am Krishna
I am Krishna
I am Krishna
```



Quiz Time!

Please fill the feedback!

References :

Book_1 : Intro to Python for Computer Science and Data Science
(Paul Deitel, Harvey Deitel)

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Thank You!