

THE ONLY SHIBBOLETH THE WEST HAS IS SCIENCE. IT IS THE PREMISE OF MODERNITY AND IT DEFINES ITSELF AS A RATIONALITY CAPABLE OF, INDEED REQUIRING SEPARATION FROM POLITICS, RELIGION AND REALLY, SOCIETY. MODERNISATION IS TO WORK TOWARDS THIS.

BRUNO LATOUR

THE BOUNDARY BETWEEN SCIENCE FICTION AND SOCIAL REALITY IS AN OPTICAL ILLUSION.

DONNA HARAWAY



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# INTRODUCTION TO PYTHON

THE ACADEMY

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*Python is a genus of snake. They are among*



# Note

This physics text is an OpenSource academic project developed in abstraction at The Academy. The manuscript is written in  $\text{\LaTeX}$  and makes use of the `tufte-book` and `tufte-handout` document classes.

<http://latex-project.org/ftp.html>

<https://git-scm.com/downloads>



# Boolean

## Intro

boolean boolean

## Boolean Operators

## Boolean Arithmetic

## While Loops

A **while loop** statement in Python programming language repeatedly executes a target statement as long as a given condition is true.

The condition may be any expression, and true is any non-zero value. The loop iterates while the condition is true. When the condition becomes false, program control passes to the line immediately following the loop. In Python, all the statements indented by the same number of character spaces after a programming construct are considered to be part of a single block of code. Python uses indentation as its method of grouping statements.

### PYTHON CODE EXAMPLE

```
count = 0
while (count < 9):
    print 'The count is:', count
    count = count + 1

print "Good bye!"
```

### OUTPUT

```
>>>
The count is: 0
The count is: 1
The count is: 2
The count is: 3
The count is: 4
The count is: 5
The count is: 6
The count is: 7
The count is: 8
Good bye!
>>>
```

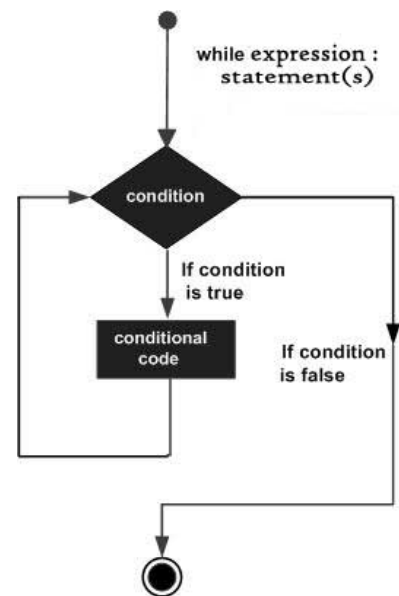


Figure 1: Flow diagram about how the while loop works

The code will produce the following output.



## INFINITE LOOP

A loop becomes **infinite loop** if a condition never becomes **FALSE**. You must use caution when using while loops because of the possibility that this condition never resolves to a FALSE value. This results in a loop that never ends. Such a loop is called an infinite loop.

An infinite loop might be useful in client/server programming where the server needs to run continuously so that client programs can communicate with it as and when required.

```
var = 1
while var == 1:
    num = raw_input("Enter a number :")
    print "You entered: ", num

print "Good bye!"
```

This python code is an example of how infinite loop can be created.

```
Enter a number :X
You entered:  x
Enter a number :Y
You entered:  Y
Enter a number :Z
You entered:  Z
Enter a number between :
```

This code creates an infinite loop where it will need your input of any number. Once you input any number, it will output it like if you input "X" it will show back "X".

To break the loop you will either need to add the **"break"** command in your code OR press **CTRL+C** to exit the program.