

Loops in python:

python programming language provides following types of loops to handle looping requirements, python provides three ways for executing the loops. While all the ways provide similar basic functionality, they differ in their syntax & cond checking time.

① while loop:

In python, while is used to execute a block of stmts repeatedly until a given cond is satisfied. If the cond becomes false, the line immediately after the loop in pgm is executed.

syntax:

while expression:

statement(s)

python program to illustrate

while loop

count = 0

while (count < 5):

count = count + 1

print ("Hello Geek")

② for in loop:

for loops are used for sequentially traversal. For ex: travelling a list of strings or array etc. In python there is no c style for loop i.e. for($i=0$; $i<n$; $i++$). This is "for in" loop which is similar to for each loop in other languages. Let us learn how to use for in loop for sequential traversal

syntax:

for iterator_var in sequence:

statement:

```
# python program to illustrate  
# iterating over range upto N  
for i in range(0, 7):  
    print(i)
```

③ Using Else statement with for loop:

We can also combine else statement with for loop like in while loop. but as there is no cond in for loop based on which the execution will be terminated so the else block will be executed immediately after for block finished cond below ex explains how to do this.

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```
# python program to illustrate
```

```
# combining else with for
```

```
list = ["geeks", "for", "geeks"]
```

```
for index in range(len(list)):
```

```
    print(list[index])
```

```
else:
```

```
    print "inside else block"
```

Nested loops:

Python programming language allows to add one loop inside another loop. Following section shows few ex to illustrate the concept.

Syntax:

for iter_val in

sequence:

statement(s)

statement(s)

statement(s)

The syntax for a nested while loop starts in python programming language is as follows:

for iter_val in

sequence:

while expression:

while expression:

statement(s)

statement(s)