











For Loop & While Loop

Content



For Loop

Understanding how for loop works in python.

- Range
- Program Example

While Loop

Understanding other choices of looping technique in python.

- Continue
- Break
- Nested Loop



Python: For Loop

Python has two loop commands:

- 1. for loops
- 2. while loops

A for loop is used for iterating over a sequence like below.

```
fruits = ["apple", "banana", "cherry"]
for x in fruits: # prints out apple, banana, cherry
    print(x)
```



Python: Range

The range() function returns a sequence of numbers, starting from 0 by default, and increments by 1 (by default), and stops before a specified number. The keyword is range(start, stop, step).

```
x = range(6)
for n in x: # prints out 0, 1, 2, 3, 4, 5
    print(n)

x = range(3, 6)
for n in x: # prints out 3, 4, 5
    print(n)

x = range(3, 20, 2)
for n in x: # prints out 3, 5, 7, 9, 11, 13, 15, 17, 19
    print(n)
```





Quiz

Create program that receive **n** person name, then print all of the name.

Where **n** is in integer.

Buatlah program yang menerima nama orang sebanyak **n**, kemudian print setiap namanya.

n adalah integer.



Python: While Loop

With the while loop we can execute a set of statements as long as a condition is true.

```
while True:
  # execute this

i = 1
while i < 6:
  print(i)
  i += 1</pre>
```



Python: Continue

With the continue statement we can stop the current iteration, and continue with the next.

```
for i in range(5):

if i == 3:

continue

print(n)
```



Python: Break

With the break statement we can stop the loop even if the while condition is true.

```
for i in range(5):

if i == 3:

break

print(n)
```



Python: Nested Loop

A nested loop is a loop inside a loop.

The "inner loop" will be executed one time for each iteration of the "outer loop".

```
for i in range(2):
    for j in range(3):
        print("i:{},j:{}".format(i,j) ,end=" ")
    print()
```







What is output from this code:

```
x = [1, 2, 3, 4, 5]

y = [2, 4, 3, 5, 6]

z = 0

for i in x:

for j in y:

if i == j:

z = z+1
```

print(z)

Page 12

