

Perulangan

Statement while, while bersarangan, do while

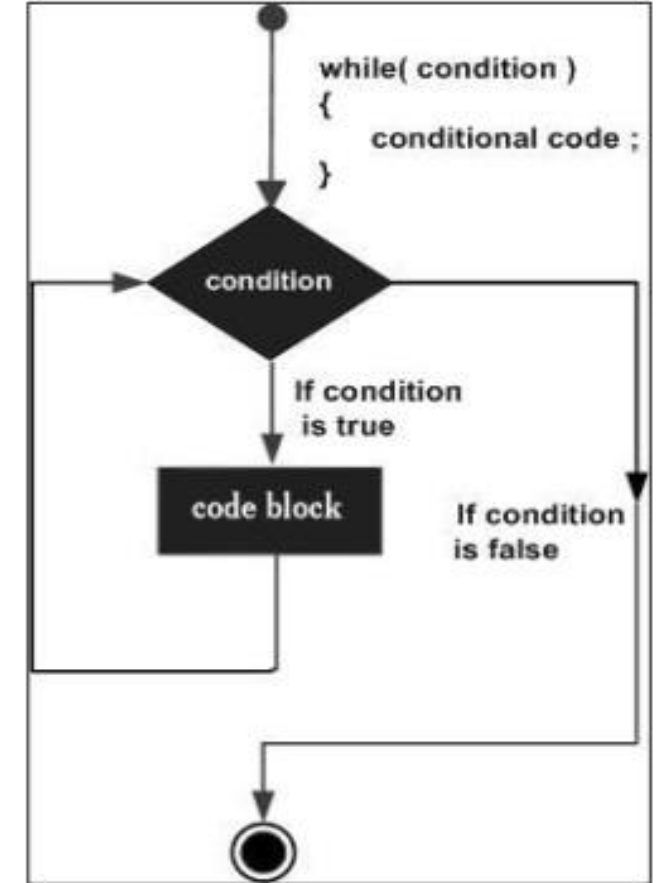
Teknik Pemrograman

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Struktur Kontrol Perulangan

A nested loop, or nested loop, is a loop that is or is located within another loop.

while The while loop statement is a statement or block of statements that is repeated until a suitable condition is reached. Form the while statement



Struktur Kontrol Perulangan

while

The while loop statement is a statement or block of statements that is repeated until a suitable condition is reached. Form the while statement

```
1 i = 1
2 while i < 10:
3     print(i)
4     i += 1
```

```
In [3]: runfile('C:/Users/btmsakla/.spyder-py3/t
btmsakla/.spyder-py3')
```

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

break Statement

Dengan pernyataan break kita bisa menghentikan loop bahkan jika kondisi while benar:

```
temp.py*  
1 i = 1  
2 while i < 10:  
3     print(i)  
4     if i == 5:  
5         break  
6     i += 1  
7  
8  
9 |
```

```
In [5]: runfile('C:/Users/btmsakla/.spyder  
btmsakla/.spyder-py3')
```

```
1  
2  
3  
4  
5
```

break Statement

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

```
temp.py x
1 buah = ["apel", "pisang", "tomat"]
2 for x in buah:
3     print(x)
4     if x == "pisang":
5         break
```

```
In [12]: runfile('C:/Users/btmsakla/.spyder-py
btmsakla/.spyder-py3')
apel
pisang

In [13]:
```

continue Statement

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

```
temp.py x
1 i = 0
2 while i < 10:
3     i += 1
4     if i == 5:
5         continue
6     print(i)
```

```
In [13]: runfile('C:/Users/btmsakla/.spyder-py3/temp.py',
btmsakla/.spyder-py3')
```

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

```
In [14]:
```

continue Statement

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

```
temp.py x
1 fruits = ["apel", "pisang", "jeruk"]
2 for x in fruits:
3     if x == "pisang":
4         continue
5     print(x)
6
```

```
In [14]: runfile('C:/Users/btmsakla/.spyder-py3/temp.py', wdir='C:
btmsakla/.spyder-py3')
apel
jeruk
```

else Statement

- With the else statement we can run a block of code once when the condition no longer is true:

```
temp.py x
1 i = 1
2 while i < 10:
3     print(i)
4     i += 1
5 else:
6     print("selesai 10")
```

```
In [9]: runfile('C:/Users/btmsakla/.spyder-py3/
btmsakla/.spyder-py3')
1
2
3
4
5
6
7
8
9
selesai 10
In [10]:
```


else Statement

- With the else statement we can run a block of code once when the condition no longer is true:

```
1 for x in range(10):  
2     print(x)  
3 else:  
4     print("Selesai")  
5 |
```

```
In [15]: runfile('C:/Us  
btmsakla/.spyder-py3')  
0  
1  
2  
3  
4  
5  
6  
7  
8  
9  
Selesai
```

Nested Loops

- A nested loop is a loop inside a loop.
- The "inner loop" will be executed one time for each iteration of the "outer loop":

```
temp.py x
1 warna = ["merah", "kuning", "hijau"]
2 buah = ["apel", "pisang", "jeruk"]
3
4 for x in warna:
5     for y in buah:
6         print(x, y)
7|
```

```
In [16]: runfile('C:/Users/btmsak
btmsakla/.spyder-py3')
merah apel
merah pisang
merah jeruk
kuning apel
kuning pisang
kuning jeruk
hijau apel
hijau pisang
hijau jeruk
```

```
In [17]:
```

IPython console History log

Nested Loops

```
temp.py x
1 for i in range(5):
2     for j in range(2):
3         print(i, "\t", j)
```

```
In [18]: runfile('C:/Use
btmsakla/.spyder-py3')
```

```
0      0
0      1
1      0
1      1
2      0
2      1
3      0
3      1
4      0
4      1
```

```
In [19]:
```

Nested Loops

```
for i in range(2):  
    for j in range(2):  
        if j==2:  
            break  
        print("Number ",i,j);
```

```
Number  0 0  
Number  0 1  
Number  1 0  
Number  1 1
```

```
for row in range(0, 5):  
    for num in range(0,5):  
        print(num, end=" ")  
    print()
```

```
0 1 2 3 4  
0 1 2 3 4  
0 1 2 3 4  
0 1 2 3 4  
0 1 2 3 4
```

Tugas

Buat berikut ini di python :

1.

```
*****
*****
*****
```

 2

```
1
22
333
4444
55555
666666
```

3. Buatlah untuk menampilkan :

a) 2,3,4,6,8,12,16

b) 18,15,12,9,6,3

c) 0 ,7 ,14 ,21 ,28 ,35 ,42 ,49