

# 10-11-2025 (LOOPS IN PYTHON)

```
In [1]: print('datascience')
        print('datascience')
        print('datascience')
        print('datascience')
        print('datascience')
```

```
datascience
datascience
datascience
datascience
datascience
```

```
In [2]: i = 1          # initializing

        while i<=5:    # condition
            print('data science')
            i = i + 1  # increment
```

```
data science
data science
data science
data science
data science
```

```
In [3]: i = 5          # initializing

        while i>=1:    # condition
            print('data science')
            i = i - 1  # decrement
```

```
data science
data science
data science
data science
data science
```

```
In [4]: i = 1          # initializing
        while i<=5:    # condition
            print('data science : ', i)
            i = i + 1  # increment
```

```
data science : 1
data science : 2
data science : 3
data science : 4
data science : 5
```

```
In [5]: i = 5          # initializing

        while i>=1:    # condition
            print('data science : ', i)
            i = i - 1  # decrement
```

```
data science : 5
data science : 4
data science : 3
data science : 2
data science : 1
```

```
In [6]: i = 1

while i<=5:
    print('data science')
    j = 1
    while j<=4:
        print('technology')
        j = j + 1

    i = i + 1
    print()
```

```
data science
technology
technology
technology
technology
```

```
data science
technology
technology
technology
technology
```

```
data science
technology
technology
technology
technology
```

```
data science
technology
technology
technology
technology
```

```
data science
technology
technology
technology
technology
```

```
In [7]: i = 1
while i<=5:
    print(' datascience', end = "")
    j = 1
    while j<=4:
        print(' technology', end="")
        j = j + 1
```

```
i = i + 1
print()
```

```
datascience technology technology technology technology
datascience technology technology technology technology
datascience technology technology technology technology
datascience technology technology technology technology
datascience technology technology technology technology
```

```
In [8]: i = 1

while i <= 2 :
    j = 0
    while j <= 2 :
        print(i*j, end=" ")
        j += 1
    print()
    i += 1
```

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

```
In [9]: i = 1
while i <= 4 :
    j = 0
    while j <= 3 :
        print(i*j, end=" ")
        j += 1
    print()
    i += 1
```

```
0 1 2 3
0 2 4 6
0 3 6 9
0 4 8 12
```

```
In [10]: i = 10

while i <= 4 :
    j = 1
    while j <= 3 :
        print(i*j, end=" ")
        j += 1

    print()
    i += 1

else:
    print('condition is not match')
```

```
condition is not match
```

```
for loop
```

```
In [11]: name = 'nit'

for i in name:
```

```
print(i)
```

```
n  
i  
t
```

```
In [13]: name1 = [1, 3.5, 'hello']
```

```
for i in name1:  
    print(i)
```

```
1  
3.5  
hello
```

```
In [14]: range(5)
```

```
Out[14]: range(0, 5)
```

```
In [15]: for i in range(5):  
         print(i)
```

```
0  
1  
2  
3  
4
```

```
In [16]: for i in range(10,50,5):  
         print(i)
```

```
10  
15  
20  
25  
30  
35  
40  
45
```

```
In [17]: for i in range(1,31):
```

```
    if i%3 == 0 :  
        print(i)
```

```
3  
6  
9  
12  
15  
18  
21  
24  
27  
30
```

BREAK, CONTINUE, PASS

```
In [18]: for i in range(1,11):  
         print(i)
```

```
1  
2  
3  
4  
5  
6  
7  
8  
9  
10
```

```
In [19]: for i in range(1,11):  
         if i == 4:  
             break  
         print(i)
```

```
1  
2  
3
```

```
In [20]: for i in range(1,11):  
         if i == 4:  
             continue  
         print(i)
```

```
1  
2  
3  
5  
6  
7  
8  
9  
10
```

```
In [21]: for i in range(1,11):
```

```
Cell In[21], line 1  
    for i in range(1,11):  
      ^  
_IncompleteInputError: incomplete input
```

```
In [22]: for i in range(1,11):  
         pass
```

```
In [23]: x = int(input('How many choclets you want:?'))  
  
         i = 1  
         while i<=x:  
             print('choclet :', i)  
             i += 1
```

```
choclet : 1
choclet : 2
choclet : 3
```

```
In [24]: ava = 5

x = int(input('How many choclets you want:?'))

i = 1
while i<=x:
    print('choclet:', i)
    i += 1
```

```
choclet: 1
choclet: 2
choclet: 3
choclet: 4
choclet: 5
choclet: 6
choclet: 7
choclet: 8
choclet: 9
choclet: 10
```

```
In [25]: available_choclet = 5

x = int(input('How many choclets user want:?'))

i = 1
while i<=x:

    if i>available_choclet:
        break
    print('choclet')
    i += 1

print('bye for now ')
```

```
choclet
choclet
choclet
choclet
bye for now
```

```
In [26]: available_choclet = 5

x = int(input('How many choclets you want:?'))

i = 1
while i<=x:

    if i>available_choclet:
        print('out of stock')
        break
    print('choclet:', i)
    i += 1
```

```
print('bye for now')
```

```
choclet: 1  
choclet: 2  
choclet: 3  
choclet: 4  
choclet: 5  
out of stock  
bye for now
```

In [27]:

```
for i in range(1,51):  
  
    if i%3 == 0:  
  
        print(i)  
print('end')
```

```
3  
6  
9  
12  
15  
18  
21  
24  
27  
30  
33  
36  
39  
42  
45  
48  
end
```

In [28]:

```
for i in range(1,51):  
  
    if i%3 == 0:  
        continue  
    print(i)  
print('end')
```

```
1
2
4
5
7
8
10
11
13
14
16
17
19
20
22
23
25
26
28
29
31
32
34
35
37
38
40
41
43
44
46
47
49
50
end
```

```
In [29]: for i in range(1,51):

        if i%3 == 0 or i%5 == 0:

            continue
        print(i)
```



1  
2  
4  
7  
8  
11  
13  
14  
16  
17  
19  
22  
23  
26  
28  
29  
31  
32  
34  
37  
38  
41  
43  
44  
46  
47  
49

```
In [30]: for i in range(1,51):  
        if i%3 == 0 or i%5 == 0:  
            continue  
        print(i)  
        print('end')
```

```
1
2
4
7
8
11
13
14
16
17
19
22
23
26
28
29
31
32
34
37
38
41
43
44
46
47
49
end
```

```
In [31]: nums = [12,5,15,18,21,26, 30,40]
```

```
for num in nums:
    if num % 5 == 0:
        print(num)
```

```
5
15
30
40
```

```
In [32]: nums = [12,5,15,18,21,26, 30,40]
```

```
for num in nums:
    if num % 5 == 0:
        print(num)
        break
```

```
5
```

```
In [33]: nums = [12,18,21,26]
```

```
for num in nums:
    if num % 5 == 0:
        print(num)
        break
```

```
In [35]: nums = [12,18,21,26]

for num in nums:
    if num % 5 == 0:
        print(num)
        #break

else:
    print('number not found')
```

number not found

```
In [36]: nums = [12,18,21,26,15]

for num in nums:
    if num % 5 == 0:
        print(num)
        break

else:
    print('number not found')
```

15

## 10-11-2025 Loops problems Geeks for Geeks

LOOPS

for loop

Loops with list

```
In [38]: li = ["geeks", "for", "geeks"]
for x in li:
    print(x)
```

geeks  
for  
geeks

Loops with tuple

```
In [40]: tup = ("geeks", "for", "geeks")
for x in tup:
    print(x)
```

geeks  
for  
geeks

Loops with string

```
In [42]: s = "abc"
        for char in s:
            print(char)
```

a  
b  
c

Loops with dictionary

```
In [43]: d = {"x":123,
            "y": 354
        }
        for x in d:
            print(f"{x}: {d[x]}")
```

x: 123  
y: 354

Loops through sets

```
In [44]: set1 = {10, 30, 20}
        for x in set1:
            print(x)
```

10  
20  
30

while loop

```
In [45]: cnt = 0
        while (cnt < 3):
            cnt = cnt + 1
            print("Hello Geek")
```

Hello Geek  
Hello Geek  
Hello Geek

Nested Loops

```
In [46]: for i in range(1,5):
        for j in range(i):
            print(i, end = " ")
        print()
```

1  
2 2  
3 3 3  
4 4 4 4

Loop Control Statements

```
In [47]: for letter in "geeksforgeeks":
        if letter == "e" or letter == "s":
```

```

        continue
    print("Current letter: ", letter)

```

```

Current letter:  g
Current letter:  k
Current letter:  f
Current letter:  o
Current letter:  r
Current letter:  g
Current letter:  k

```

```

In [49]: for letter in "GeeksForGeeks":
        if letter == "e" or letter == "s":
            break
        print("Current Letter: ", letter)

```

```

Current Letter:  e

```

Loop Problems For Loop

```

In [50]: num = int(input("Give a number to have multiplication table"))

        for i in range(1, 11):
            print(i*num)

```

```

5
10
15
20
25
30
35
40
45
50

```

```

In [52]: n = 5

        for i in range(1, 11):
            print(i*n, end=" ")

```

```

5 10 15 20 25 30 35 40 45 50

```

```

In [53]: s = "DoctorPhenomenal"

        for i in range(0, len(s), 2):
            print(s[i], end="")

```

```

DcoPeoea

```

```

In [54]: s = "DoctorPhenomenal"

        for i in range(0, len(s)):
            if i%2 == 0:
                print(s[i], end="")

```

```

DcoPeoea

```

## While Loop

```
In [55]: x = 5

while x>=0:
    print(x, end=" ")
    x -= 1
```

5 4 3 2 1 0

```
In [56]: x = 10
i = 1
squared = 0
while True:
    if squared > x:
        break
    squared = i**2
    print(squared, end=" ")
    i+=1
    x-=1
```

1 4 9

In [ ]: