

LOOPS

```
In [1]: print('data science')
        print('data science')
        print('data science')
        print('data science')
        print('data science')
```

data science
data science
data science
data science
data science

```
In [2]: i = 1

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

data science
data science
data science
data science
data science

```
In [3]: i = 5

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

data science
data science
data science
data science
data science

```
In [4]: i = 1

        while i<=5:
            print('data science : ', i )
            i = i + 1
```

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

```
In [5]: i = 5

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

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<=6:
    print(' datascience', end = "")
    j = 1
    while j<=5:
        print(' technology', end="")
        j = j + 1

    i = i + 1
    print()
```

datascience technology technology technology technology technology
datascience technology technology technology technology technology
datascience technology technology technology technology technology
datascience technology technology technology technology technology
datascience technology technology technology technology technology
datascience technology technology technology technology technology

```
In [9]: 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 [10]: 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

FOR LOOP

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

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

n
i
t

```
In [12]: name1 = [1,3.5,'hallo']
        for i in name1:
            print(i)
```

1
3.5
hallo

```
In [13]: for i in [2, 3, 7.8, 'hi']:
        print(i)
```

2
3
7.8
hi

```
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(2,5):
        print(i)
```

2
3
4

```
In [17]: for i in range(1,10,3):
        print(i)
```

1
4
7

```
In [18]: for i in range(1,10,3):  
         print(i)
```

1
4
7

```
In [19]: or i in range(1,21):  
         print(i)
```

Cell In[19], line 1
 or i in range(1,21):
 ^
SyntaxError: invalid syntax

```
In [20]: for i in range(1,51):  
         if i%5==0 :  
             print(i)
```

5
10
15
20
25
30
35
40
45
50

```
In [21]: for i in range(1,51):  
         if i%5!=0 :  
             print(i)
```

1
2
3
4
6
7
8
9
11
12
13
14
16
17
18
19
21
22
23
24
26
27
28
29
31
32
33
34
36
37
38
39
41
42
43
44
46
47
48
49

BREAK || CONTINUE || PASS

```
In [22]: x = int(input('How many choclets you want:'))

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

choclet
choclet
choclet
choclet
choclet

```
In [23]: ava = 5

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

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

choclet
choclet
choclet
choclet
choclet
choclet

```
In [24]: 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')
```

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 += 1

print('bye for now')
```

```
File <string>:10
  print('choclet')
                ^
IndentationError: unindent does not match any outer indentation level
```

```
In [27]: for i in range(1,11):
        print(i)
```

1
2
3
4
5
6
7
8
9
10

```
In [28]: for i in range(1,11):
        if i == 6:
            break
        print(i)
```

1
2
3
4
5

```
In [29]: for i in range(1,11):
        if i == 3:
            continue
        print(i)
```

1
2
4
5
6
7
8
9
10

```
In [30]: for i in range(1,11):
        if i == 6:
            continue
        print('hello :',i)
```

hello : 1
hello : 2
hello : 3
hello : 4
hello : 5
hello : 7
hello : 8
hello : 9
hello : 10

PASS

```
In [31]: for i in range(1,11):
```

Cell In[31], line 1

for i in range(1,11):

^

_IncompleteInputError: incomplete input

```
In [32]: for i in range(1,11):
        pass
```

you need to print the number from 1 to 50 but dont print the number which is divisible by 3 or 5

```
In [33]: 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 [34]: 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 [35]: 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 [36]: 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 [37]: for i in range(1,50):
        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 [38]: for i in range(1,51):

        if (i%2 == 0):
            #print('even')
            continue
        else:
```

```
        print(i)
    print('bye')
```

1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
31
33
35
37
39
41
43
45
47
49
bye

PRINTING PATTERN IN PYTHON

```
In [39]: print('# # # #')
         print('# # # #')
         print('# # # #')
         print('# # # #')
```


#

```
In [40]: for i in range(1,5):
         i=i+1
         print('# # # # ')
```


#

```
In [41]: for i in range(1,5):
         if i<=5:
             print('# # # #')
```


#

```
In [42]: for j in range(4):
         print('#')
```


#

```
In [44]: for j in range(4):
         print('# # # #')
```

```
# # # #
# # # #
# # # #
# # # #
```

```
In [45]: for j in range(4):
        print('#', end = " ")
```

```
# # # #
```

```
In [47]: for j in range(4):
        print('#', end=" ")

        for j in range(4):
            print('#', end=" ")
```

```
# # # # # # # #
```

```
In [48]: for j in range(4):
        print('#', end=" ")

        print()

        for j in range(4):
            print('#', end=" ")
```

```
# # # #
# # # #
```

```
In [49]: for j in range(4):
        print('#', end=" ")

        print()

        for j in range(4):
            print('#', end=" ")

        print()

        for j in range(4):
            print('#', end=" ")

        print()

        for j in range(4):
            print('#', end=" ")
```

```
# # # #
# # # #
# # # #
# # # #
```

```
In [50]: for i in range(4):
        for j in range(4):
            print('#', end=" ")
        print()
```

```
# # # #
# # # #
# # # #
# # # #
```

```
In [51]: for i in range(4):
        for j in range(i+1):
            print('#', end = " ")
        print()
```

```
#
# #
# # #
# # # #
```

```
In [52]: for i in range(1,5):
        print("# "*i)
```

```
#
# #
# # #
# # # #
```

```
In [53]: for i in range(1,5):
         for j in range(4):
             if i>j:
                 print("#",end=" ")
         print()
```

```
#
# #
# # #
# # # #
```

```
In [54]: list(range(5))
```

Out[54]: [0, 1, 2, 3, 4]

```
In [55]: for i in range(4):
         for j in range(i):
             print('#', end=" ")
         print()
```

```
#
# #
# # #
```

```
In [56]: for i in range(4):
         for j in range(i+1):
             print('#', end=" ")
         print()
```

```
#
# #
# # #
# # # #
```

```
In [57]: for i in range(4):
         for j in range(4-i):
             print('#', end=" ")
         print()
```

```
# # # #
# # #
# #
#
```

```
In [58]: for i in range(1,5):
         print("# "*(5-i))
```

```
# # # #
# # #
# #
#
```

```
In [ ]:
```