

# While loop

```
In [1]: i = 1 #initializing
while i <=5: #condition
    print(i) #print the value
    i = i+1 #increment
```

```
1
2
3
4
5
```

```
In [2]: i = 5 #initializing
while i >=1: #condition
    print(i) #print the value
    i = i-1 #decrement
```

```
5
4
3
2
1
```

## Nested While

```
In [13]: i = 1
while i<=5:
    print('\nGopal', end='')

    j =1 #defining one more Loop
    while j<=4:
        print(j,end='') #to print the values in a line
        j = j+1

    i=i+1
```

```
Gopal1234
Gopal1234
Gopal1234
Gopal1234
Gopal1234
```

```
In [1]: i = 1
while i<=5:
    print('Gopal', end='')

    j =1 #defining one more Loop
    while j<=4:
        print(j,end='') #to print the values in a line
        j = j+1

    i=i+1
    print()
```

```
Gopal1234
Gopal1234
Gopal1234
Gopal1234
Gopal1234
```

```
In [14]: i = 1
while i<=2:
    j=0
    while j<=2:
        print(i*j, end=' ')
        j+=1
    print()
    i=i+1
```

```
012
024
```

## Print Tables output upto 5 tables

```
In [4]: i = 1
while i<=5:
    j=1
    while j<=10:
        print(i*j, ', ', end=' ')
        j+=1
    i=i+1
    print()
```

```
1 ,2 ,3 ,4 ,5 ,6 ,7 ,8 ,9 ,10 ,
2 ,4 ,6 ,8 ,10 ,12 ,14 ,16 ,18 ,20 ,
3 ,6 ,9 ,12 ,15 ,18 ,21 ,24 ,27 ,30 ,
4 ,8 ,12 ,16 ,20 ,24 ,28 ,32 ,36 ,40 ,
5 ,10 ,15 ,20 ,25 ,30 ,35 ,40 ,45 ,50 ,
```

## For loop

```
In [16]: a = 'Gopal'
for i in a:
    print(i)
```

```
G
o
p
a
l
```

```
In [18]: #print the multiple of 5
for i in range(1,51):
    if i%5==0:
        print(i, end=', ')
```

```
5,10,15,20,25,30,35,40,45,50,
```

```
In [19]: for i in range(1,51):
    print(i, end=', ')
```

```
1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,  
31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,
```

## Break

```
In [22]:  
for i in range(1,51):  
    if i == 10: #to print till 10(excluded)  
        break #to stop the Loop  
    print(i, end=',')
```

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

## Continue

```
In [23]:  
for i in range(1,11):  
    if i == 5: #to print excluding the 5  
        continue #to continue the loop  
    print(i, end=',')
```

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

```
In [ ]:
```