

```
# Iterative statements: If we want to execute a group of statements multiple times then we should go for iterative statements
# Python supports 2 types of iterative statements.
# 1. for loop
# 2. while loop
```

```
# for loop:
# If we want to execute some action for every element present in some sequence (it may be string or collection) then we
# should go for forloop.

#Syntax: for x in sequence: body
# where sequence can be string or collection
# body will be executed for every element present in sequence.
```

```
# To print characters present in given employee name
emp1='aravind'
for x in emp1:
    print(x)
```

```
# To print characters present in given employee name by index wise
emp1=input("Enter the name:")
i=0
for x in emp1:
    print("The characters present at",i,"index is",x)
    i+=1
```

```
# we can use range function with forloop
# to print employee name 10 times
for x in range(10):
    print('aravind')
```

In [15]:

```
# to print odd numbers from 0 to 20
for x in range(21):
    if x%2!=0:
        print(x)
```

1
3
5
7
9
11
13
15
17
19

In [16]:

```
# to display numbers from 10 to 1 in descending order
for x in range(10,1,-1):
    print(x)
```

10
9
8
7
6
5
4
3
2

In [17]:

```
# to print sum of salaries of employees present inside list
list=eval(input("Enter the salaries of employees:"))
sum=0
for x in list:
    sum+=x
print("The sum:",sum)
```

Enter the salaries of employees:10000,20000,40500
The sum: 70500

In [18]:

```
# While loop: If we want to execute a group of statements iteratively until some condition is false, then we should go for
# while loop
# Syntax: while condition: body
```

In [20]:

```
# to print the employee id from 10000 to 10010 by using while loop
x=10000
while x<=10010:
    print(x)
    x+=1
```

10000
10001
10002
10003
10004
10005
10006
10007
10008
10009
10010

In [21]:

```
# to display the sum of first n natural numbers
n=int(input("Enter number:"))
sum=0
i=1
while i<=n:
    sum+=i
    i+=1
print(sum)
```

Enter number:10
55

In [23]:

```
# write a program to prompt user to enter the company name until entering the google
name=''
while name!='google':
    name=input("Enter name")
print('you logged in to system')
```

Enter namegoogle
you logged in to system

In [24]:

```
# nested loops - some times we can take a loop inside another loop which is also known as nested loops
for i in range(4):
    for j in range(4):
        print("i=",i," j=",j)
```

```
i= 0  j= 0
i= 0  j= 1
i= 0  j= 2
i= 0  j= 3
i= 1  j= 0
i= 1  j= 1
i= 1  j= 2
i= 1  j= 3
i= 2  j= 0
i= 2  j= 1
i= 2  j= 2
i= 2  j= 3
i= 3  j= 0
i= 3  j= 1
i= 3  j= 2
i= 3  j= 3
```