

In [12]:

```
# example of if statement
```

```
x=0
```

```
if(x>0):
```

```
    print("x is greater than 0")
```

In [14]:

```
x=4
```

```
if(x>0):
```

```
    print("x is greater than 0")
```

```
x is greater than 0
```

In [15]:

```
# example of if, else statement
```

```
x=5
```

```
if(x%2==0):
```

```
    print("x is divisible by 2")
```

```
else:
```

```
    print("x is not divisible by 2")
```

```
x is not divisible by 2
```

In [17]:

```
y=34
```

```
if(y<10):
```

```
    print('y is less than 10')
```

```
elif(y>10 and y<34):
```

```
    print("y is between 10 and 34")
```

```
else:
```

```
    print('y is greater than 34')
```

```
y is greater than 34
```

In [19]:

```
y=24
```

```
if(y<10):
```

```
    print('y is less than 10')
```

```
elif(y>10 and y<34):
```

```
    print("y is between 10 and 34")
```

```
else:
```

```
    print('y is greater than 34')
```

```
y is between 10 and 34
```

In [20]:

```
y=45
```

```
if(y<10):
```

```
    print('y is less than 10')
```

```
elif(y>10 and y<34):
```

```
    print("y is between 10 and 34")
```

```
else:
```

```
    print('y is greater than 34')
```

```
y is greater than 34
```

In [21]:

```
## for loop
```

```
##the for loop in python used to iterate over sequence (list,tuples,string or dictionary)
```

In [24]:

```
a=["delhi", "mumbai", "kolkatta", "banglore", "chennai"]
```

```
for city in a:
```

```
    print(city)
```

```
delhi
```

```
mumbai
```

```

kolkatta
banglore
chennai
In [31]:
s=[2,4,5,7,3.76,45]
for i in s:
    if(i%2==0):
        print(i, "divisible by 2")
2 divisible by 2
4 divisible by 2
In [32]:
##while loop
## the while loop in python is used to iterate over block of code as long as test
condition is true
In [37]:
i=1
while i<=6:
    print(i)
    i=i+1
1
2
3
4
5
6
In [39]:
i=1
while i<=6:
    print(i)
    i=i+1
else:
    print("i is not less than 7")
1
2
3
4
5
6
i is not less than 7

```

## Practice of for loop

```

In [40]:
string="Geekywords"
for var in string:
    print(var)

print("rest of code")
G
e
e
k
y
w
o
r

```

```
d
s
rest of code
In [41]:
## for loop with range
a=range(5)
for i in a:
    print(i)
0
1
2
3
4
In [42]:
for i in range(5):
    print(i)
0
1
2
3
4
In [48]:
a=list(range(1,5))
a
Out[48]:
[1, 2, 3, 4]
In [44]:
a=list(range(1,6))
for i in a:
    print(a)
[1, 2, 3, 4, 5]
[1, 2, 3, 4, 5]
[1, 2, 3, 4, 5]
[1, 2, 3, 4, 5]
[1, 2, 3, 4, 5]
In [49]:
a=range(1,10,2)
for i in a:
    print(i)
1
3
5
7
9
In [50]:
a=range(1,5)
for i in a:
    print(i)
1
2
3
4
In [51]:
a=range(10,0,-2)
for i in a:
```

```
    print(i)
```

```
10
```

```
8
```

```
6
```

```
4
```

```
2
```

```
In [52]:
```

```
a=range(10,0,-1)
```

```
for i in a:
```

```
    print(i)
```

```
10
```

```
9
```

```
8
```

```
7
```

```
6
```

```
5
```

```
4
```

```
3
```

```
2
```

```
1
```

```
In [53]:
```

```
string="Geekywords"
```

```
n=len(string)
```

```
for i in range(n):
```

```
    print(i,"=",string[i])
```

```
0 = G
```

```
1 = e
```

```
2 = e
```

```
3 = k
```

```
4 = y
```

```
5 = w
```

```
6 = o
```

```
7 = r
```

```
8 = d
```

```
9 = s
```

```
In [56]:
```

```
tring="Geekywords"
```

```
for var in string:
```

```
    print(var)
```

```
else:
```

```
    print("else part")
```

```
print("rest of code")
```

```
G
```

```
e
```

```
e
```

```
k
```

```
y
```

```
w
```

```
o
```

```
r
```

```
d
```

```
s
```

```
else part
```

rest of code

```
In [57]:
string="Geekywords"
n=len(string)
for i in range(n):
    print(i,"=",string[i])
```

```
else:
    print("nothing")
```

0 = G

1 = e

2 = e

3 = k

4 = y

5 = w

6 = o

7 = r

8 = d

9 = s

nothing

```
In [58]:
```

```
##nested for loop
```

```
##for loop inside another for loop known as nested loop.
```

```
syntax for i in range (n): for j in range(y): statements statement
```

```
In [ ]:
```

n