

+ X □ ▨ C ► Code

print("for {units} units the electricity billl is {edj} \$")

enter num of units used: 300
for 300 units the electricity billl is 225.0\$

[]: nested if else:

syntax

```
if(cond1):#outer if cond=condition
    if(cond2):#inner if
        statements of inner of
    else:
        statements of inner else
else:
    statements of outer else
```

```
#n=int(input())
if(n>=0):
    if(n>0):
        print(+ve)
    else:
        print("zero")
else:
    print("-ve") #nested query makes query execute faster than passing to each condition
```

[3]: #Loops:

1) for loop sequence
sequence dat types:string, list, tuple, set, dict
iteration means = one by one

Cell In[3], line 2



Search



sequence
iteration means -

Cell In[3], line 2
1)for loop sequence

SyntaxError: unmatched ''

[11]: #a.example of for loop with sequence

```
sub="python"  
for i in sub:  
    print(i)
```

p
y
t
h
o
n

[9]: colors=['black','white','red','yellow','orange']
print(colors)

['black', 'white', 'red', 'yellow', 'orange']

[10]: colors=['black','white','red','yellow','orange']
for i in colors:
 print(i)

black
white
red
yellow

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

p
y
t
h
o
n

```
[9]: colors=['black','white','red','yellow','orange']  
print(colors)
```

['black', 'white', 'red', 'yellow', 'orange']

```
[10]: colors=['black','white','red','yellow','orange']  
for i in colors:  
    print(i)
```

black
white
red
yellow
orange

```
[12]: sub="python" # position of p is 0 and y is 1 and so on  
sub[0] #mentioned 0 in the column to print only letter p
```

[12]: 'p'

```
[14]: #write a program to print both position and value  
sub="amsaveni"  
for i in enumerate(sub):  
    print(i)
```



Search



[12]: 'p'

[14]: #write a program to print both position and value
sub="amsaveni"
for i in enumerate(sub):
 print(i)
#enumerate will give both the values and position like below

```
(0, 'a')  
(1, 'm')  
(2, 's')  
(3, 'a')  
(4, 'v')  
(5, 'e')  
(6, 'n')  
(7, 'i')
```

[30]: #b.for Loop with range:default start value is 0 and step size is 1
for i in range(1,11,1):
 print(i)

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

[20]: for i in range(5):
 #i=0,1,2,3,4
 print(i)
 print("good morning")



Search



```
[26]: sub="python" # example of decrementation values
for i in range(0,6,1):
    print(i,sub[i])
```

0 p
1 y
2 t
3 h
4 o
5 n

```
[28]: #to print reverse
sub="python"
for i in range(5,-1,-1):
    print(i,sub[i])
```

5 n
4 o
3 h
2 t
1 y
0 p

```
[33]: #write a program to print even numbers from 1 to 20
for i in range(2,21,2):
    print(i)
```

2
4
6
8
10

#1 to 10
#1=odd number
#2=even number
#3=odd number
.
..

#10=even number

[41]: #write a programm to print
#1 to 10
#1=odd number
#2=even number
#3=odd number
#. .
#:
#10=even number

```
for i in range(1,11,1):
    if(i%2==0):
        print(i,"=even number")
    else:
        print(i,"=odd number")
```

1 =odd number
2 =even number
3 =odd number
4 =even number
5 =odd number
6 =even number
7 =odd number
8 =even number
9 =odd number
10 =even number

11/9/25
These go Characters by character :-
9 = Iterative Variable , Value is assigned
:= to build Constant relationship
relationship use colon

Loops :- Loops in Python are used to execute a block of code repeatedly until a certain condition is met.

Python mainly provides three loops:

1) for loop } main

2) while loop

3) Nested loop } combination of for and while loop.
* for loop inside for loop.
* for loop inside while loop
* while loop inside while loop
* while loop inside for loop.

i) for loop

a) for loop with sequence system :

for Variable in sequence:
statements

b) for loop with range () function
for Variable in range ():
statements

Ex: for Iteration and loops a sequence

We want Python do

Position = P
1 g } Iteration /
2 t Sequencing ..
3 n
4 o In sequence
5 n

• enumerate :- function will give the ~~values~~
and also position of the values of the data

→ 3 main words we use in python.

1. Initialization

2. condition

3. Incrementation / Decrementation

→ for loop with range :

Syntax : range (start value, stop value, step size).

we have default start value is 0

step size is 1.

Ex: we need range value from 1-10 so,

1) range (1, 11, 1) → Range we have taken 11, becoz it takes one value less than what mentioned.
 $i=1, 2, 3, 4, 5, 6, 7, 8, 9, 10.$

2) range (1, 10, 1) = for range 1-9.

$(i=1; i < 10; i+1)$

$i=1, 2, 3, 4, 5, 6, 7, 8, 9$

→ Write a program to print Even numbers from 1 to 20

Syntax: for i in range (2, 21, 2):
 print(i) $\frac{2+2=4}$

print program Odd numbers

Syntax: for i in range (1, 21, 2):
 print(i) $\frac{1+2=3}$