

Untitled10

October 11, 2023

[]:

And OR NOT logical operators

```
[1]: a=10  
b=20
```

```
[3]: ((a>10) and (b>20))
```

[3]: False

1 1 1 1 0 0 0 1 0 0 0 0

```
[4]: print(True and False)
```

False

```
[6]: ((a>10) or (b>7))
```

[6]: True

```
[7]: 1 1 1  
1 0 1  
0 1 1  
0 0 0  
#or
```

Cell In[7], line 1

1 1 1

^

SyntaxError: invalid syntax

```
[8]: '''Bitwiseoperators  
& and  
| or  
^ xor  
~ negation
```

```
<< left shift
>> right shift'''
```

```
[8]: 'Bitwiseoperators\n& and\n| or\n^ xor\n~ negation\n<< left shift\n>> right shift'
```

```
[9]: a=10
      b=4
```

```
[11]: bin(a)
       #1010
```

```
[11]: '0b1010'
```

```
[12]: bin(b)
       #32 16 8 4 2 1
```

```
[12]: '0b100'
```

```
[13]: a&b
```

```
[13]: 0
```

```
[14]: a|b
```

```
[14]: 14
```

```
[15]: a ^ b
      '''XOR
      1 1 0
      1 0 1
      0 1 1
      0 0 0'''
```

```
[15]: 'XOR\n1 1 0\n1 0 1\n0 1 1\n0 0 0'
```

```
[16]: a^b
```

```
[16]: 14
```

```
[17]: a=10
```

```
[19]: ~a#(negation means negative.it avoid negative so it takes 2'scompliment)
```

```
[19]: -11
```

```
[20]: a=8
```

```
[21]: ~a
```

```
[21]: -9
```

```
[22]: a=-12
```

```
[23]: ~a
```

```
[23]: 11
```

```
[24]: x=[1,2,3,4,5]
```

```
[25]: 2 in x
```

```
[25]: True
```

```
[26]: 7 in x
```

```
[26]: False
```

```
[27]: a=10
```

```
[28]: a<<1
```

```
[28]: 20
```

```
[29]: a<<2
```

```
[29]: 40
```

```
[30]: a<<3
```

```
[30]: 80
```

```
[31]: a>>1
```

```
[31]: 5
```

conditional statement if else if elif else

```
[35]: age=19
```

```
[36]: if age>=18:  
      print("you can drive")
```

you can drive

```
[37]: x=2
      if x>=23:
          print("you are inside the if block")
```

```
[38]: if age>=18:
      print("you can drive")
      else:
          print("you cannot drive")
```

you can drive

```
[40]: score=75
      if score>=90:
          print("excellent performance your grade is A+")
      elif score>=80:
          print("excellent performance your grade is A")
      elif score>=70:
          print("excellent performance your grade is A")
      else:
          print("excellent performance your grade is c")
```

excellent performance your grade is A

```
[43]: time=int(input("piease enter the time"))
      if time < 0:
          print("invalid")
      elif 0<=time<=5:
          print("night")
      elif 6<=time <11:
          print("morning")
      elif 12<=time<=17:
          print("afternoomn")
      elif 18<= time <=23:
          print("evening")
      else:
          print("invalid")
```

piease enter the time 20

evening

```
[45]: #find largest number from the 3 given numbers
      n1=10
      n2=20
      n3=30

      if(n1>=n2) and (n1>=n3):
          largest=n1
```

```

    print("largest number is",largest)
elif(n2>=n1) and (n2>=n3):
    largest=n2
    print("largest number is",largest)
else:
    largest=n3
    print("largest number is",largest)

```

largest number is 30

#simple calculator(add,mul,sub,div)

```

[2]: first = input("enter first number :")
operator = input("enter operator (+,-,*,/,%) : ")
second = input("enter second number :")
first = int(first)
second = int(second)
if operator == "+":
    print(first+second)
elif operator == "-":
    print(first-second)
elif operator == "*":
    print(first*second)
elif operator == "/":
    print(first/second)
elif operator == "%":
    print(first%second)
else:
    print("invalid operation")

```

enter first number : 2

enter operator (+,-,*,/,%) : +

enter second number : 5

7

```

[3]: n1=int(input("enter number1:"))
n2=int(input("enter number2:"))
op=input("enter op:")

if op=='+':
    print(n1+n2)
elif op=='-':
    print(n1-n2)
elif op=='*':
    print(n1*n2)
elif op=='/':
    print(n1/n2)

```

```
else:
    print("invalid op:")
```

```
enter number1: 3
enter number2: 6
enter op: /
0.5
```

```
[7]: num=10
    if(num>=0):
        if num==0:
            print("number is 0")
        else:
            print("number is positive")
    else:
        print("number is negative")
```

number is positive

```
[1]: num=-12
    if(num>=0):
        if num==0:
            print("number is 0")
        else:
            print("number is positive")
    else:
        print("number is negative")
```

number is negative

#Range function

```
[2]: range(5)
```

```
[2]: range(0, 5)
```

range(start,stop,step)

```
[4]: list(range(10))
```

```
[4]: [0, 1, 2, 3, 4, 5, 6, 7, 8, 9]
```

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

```
[5]: [0, 1, 2, 3, 4]
```

```
[6]: list(range(2,10))
```

```
[6]: [2, 3, 4, 5, 6, 7, 8, 9]
```

```
[8]: list(range(45,58))
```

```
[8]: [45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57]
```

```
[9]: list(range(2,9,3))
```

```
[9]: [2, 5, 8]
```

```
[14]: for i in range(5):  
      print(i)
```

```
0  
1  
2  
3  
4
```

```
[16]: for x in ['a','b',"c"]:  
      print(x)
```

```
a  
b  
c
```

```
[17]: for i in "pwwskills":  
      print(i)
```

```
p  
w  
s  
k  
i  
l  
l  
s
```

```
[18]: x={"name":"shamnu","city":"saudia"}
```

```
[20]: for i in x.values():  
      print(i)
```

```
shamnu  
saudia
```

```
[21]: range(4)
```

```
[21]: range(0, 4)
```

```
[22]: list(range(4))
```

```
[22]: [0, 1, 2, 3]
```

```
[23]: for i in range(2,9,3):  
      print(i)
```

```
2  
5  
8
```

```
[25]: country=["india","uk","germany"]  
      for city in country:  
          print(city)
```

```
india  
uk  
germany
```

```
[27]: country=["india","uk","germany"]  
      for index in range(len(country)):  
          print(country[index])
```

```
india  
uk  
germany
```

```
[29]: dict1={"x1":1,"x2":2,"x3":3}
```

```
[30]: dict1.values()
```

```
[30]: dict_values([1, 2, 3])
```

```
[31]: dict1.keys()
```

```
[31]: dict_keys(['x1', 'x2', 'x3'])
```

```
[33]: for key in dict1:  
      print(key,dict1[key])
```

```
x1 1  
x2 2  
x3 3
```

```
[34]: dict1['x1']
```



```
[34]: 1
```

```
[3]: dict1={"x1":1,"x2":2,"x3":3}
```

```
[4]: for i in dict1:  
      print(i)
```

```
x1  
x2  
x3
```

```
[5]: for i in dict1.values():  
      print(i)
```

```
1  
2  
3
```

```
[6]: for i in (1,2,3):  
      print(i)
```

```
1  
2  
3
```

```
[7]: x="pwwskills"  
      for i in x:  
          print(i)
```

```
p  
w  
s  
k  
i  
l  
l  
s
```

```
[8]: print(list(range(10)))
```

```
[0, 1, 2, 3, 4, 5, 6, 7, 8, 9]
```

```
[9]: print("hi")  
      print("pw")  
      print("skills")  
      print("ineuron")
```

```
hi
```

```
pw
skills
ineuron
```

```
[10]: print("hi",end='@')
      print("pw",end='@')
      print("skills",end='@')
      print("ineuron",end='@')
```

```
hi@pw@skills@ineuron@
```

```
[15]: for i in range(10):
      print(i,end=' ')
```

```
0 1 2 3 4 5 6 7 8 9
```

```
[17]: for i in range(10):
      print(i,end=' & ')
```

```
0 & 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 &
```

```
[19]: for i in range(5):
      print(i)
      else:
          print("done")
```

```
0
1
2
3
4
done
```

1 pattern

```
[20]: for i in range(5):
      for j in range(i+1):
          print("*")
```

```
*
*
*
*
*
*
*
*
*
```

```
*
*
*
*
*
*
```

```
[21]: #nested for loop
      for i in range(5):
          for j in range(i+1):
              print("*",end=' ')
          print()
```

```
*
* *
* * *
* * * *
* * * * *
```

```
[22]: for i in range(5,0,-1):
      for j in range(i,0,-1):
          print("*",end=' ')
      print()
```

```
* * * * *
* * * *
* * *
* *
*
```

```
[23]: for i in range(1,6):
      for j in range(1,6):
          print(i*j,end=' ')
      print()
```

```
1 2 3 4 5
2 4 6 8 10
3 6 9 12 15
4 8 12 16 20
5 10 15 20 25
```

```
[24]: count=1

      while count<=5:
          print(count)
          count +=1
          #count=count+1
```

1
2
3
4
5

```
[25]: text=" "  
  
while text!='quit':  
    text=input("enter a word")  
    print("you entered",text)
```

enter a word pw
you entered pw
enter a word skills
you entered skills
enter a word quit
you entered quit

```
[26]: #if you know how times you will iterate go with for loop  
#if you don't know how times you will iterate go with while loop
```

```
[27]: #guess the age  
age=0  
while age!=23:  
    age=int(input("enter the age:"))  
    print("you entered",age)
```

enter the age: 12
you entered 12
enter the age: 25
you entered 25
enter the age: 23
you entered 23

```
[1]: list1=[23,22,26,28,25,20]  
age=0;  
while age not in list1:  
    age=int(input("enter your age"))  
    print("invalid age")  
else:  
    print("age is from list");
```

enter your age 23

invalid age

age is from list

[]: