

Conditional statement

if else nested if if elif else

```
In [1]: #if
    if True:
        print ('Data science')
```

Data science

```
In [2]: if False:
    print('Data science')
print('bye for now')
```

bye for now

```
In [3]: x=4
r=x%2
if r==0:
    print ('even number')
```

even number

```
In [4]: x=5
r=x%2
if r== 0:
    print('even number')
if r== 1:
    print ('odd number')
```

odd number

```
In [5]: x=5
r=x%2
if r!= 0:
    print ('odd number')
```

odd number

```
In [6]: #if else statement
if True :
    print('Data science')
else:
    print('no Data science')
```

Data science

```
In [7]: if False:
    print ('data science')
else:
    print('no data science')
```

no data science

```
In [8]: x=8
r=x%2
```

```

if r==0:
    print('even number')
else:
    print('odd number')

```

even number

```

In [9]: x=9
r=x%2
if r==0:
    print ('even number')
else:
    print('odd numbetr')

```

odd numbetr

Nested if

```

In [10]: x=4
r=x%2
if r==0:
    print ('even number')
    if x>5:
        print('greater number')
    else:
        print('lesser number')
else:
    print ('odd number')

```

even number

lesser number

```

In [11]: x=13
r=x%2
if r==0:
    print ('even number')
    if x>5:
        print('greater number')
    else:
        print('lesser number')
else:
    print ('odd number')

```

odd number

```

In [12]: x=10
r=x%2
if r==0:
    print ('even number')
    if x>5:
        print('greater number')
    else:
        print('lesser number')
else:
    print ('odd number')

```

```
even number  
greater number
```

elif statement

```
In [13]: x=1  
if x==1:  
    print('one')  
elif x==2:  
    print ('two')  
elif x==3:  
    print ('three')  
elif x==4:  
    print('foue')
```

one

```
In [14]: x=5  
if x==1:  
    print('one')  
elif x==2:  
    print ('two')  
elif x==3:  
    print ('three')  
elif x==4:  
    print('foue')  
else:  
    print ('number not found')
```

number not found

```
In [15]: age=19  
if age >18:  
    print('eligible to vote')  
else:  
    print ('not eligible to vote')
```

eligible to vote

```
In [16]: age=18  
if age >18:  
    print('eligible to vote')  
else:  
    print ('not eligible to vote')
```

not eligible to vote

```
In [17]: age=10  
if age <=12:  
    print ('travel for free')  
else:  
    print('pay for the ticket')
```

travel for free

```
In [18]: #short hand if else
marks=45
res="pass" if marks>=40 else "fail"
print(f"result: {res}")
```

result: pass

```
In [19]: age=25
if age <=12:
    print ('child')
elif age<=19:
    print ('teenager')
elif age <=35:
    print('young adult')
else:
    print ('adult')
```

young adult

```
In [20]: age=70
is_member=True
if age>= 60:
    if is_member:
        print('30% senior discount')
    else:
        print ('20% senior discount')
else:
    print('not eligible for senior discount')
```

30% senior discount

```
In [21]: age=20
s= "adult" if age >=18 else "minor"
print (s)
```

adult

```
In [22]: #match case
number=3
match number:
    case 1:
        print('one')
    case 2|3:
        print('two or three')
    case _:
        print('other numbers')
```

two or three

```
In [23]: #Task
j_angry=True
s_angry=True
if (j_angry & s_angry==True):
    print('you are in trouble')
else:
    print('you are not in trouble')
```

you are in trouble

```
In [24]: j_angry=True  
s_angry=False  
if (j_angry & s_angry==True):  
    print('you are in trouble')  
else:  
    print('you are not in trouble')
```

you are not in trouble

```
In [25]: x=4  
r=x%2  
if r==0:  
    print('number is even')  
else:  
    print('number is odd')
```

number is even

```
In [26]: x=5  
r=x%2  
if r==0:  
    print('number is even')  
else:  
    print('number is odd')
```

number is odd

```
In [27]: a=10  
if a>100 :  
    print('Big')  
else:  
    print('Number')
```

Number

```
In [28]: a=101  
if a>100 :  
    print('Big')  
else:  
    print('Number')
```

Big

```
In [29]: n=15  
r=n%2  
if r==0:  
    print('true')  
else:  
    print('false')
```

false

```
In [30]: n=14  
r=n%2  
if r==0:  
    print('true')
```

```
else:  
    print('false')
```

true

```
In [31]: a=5  
b=2  
c=3  
if a>=b and a>=c:  
    print(a)  
elif b>=a and b>=c:  
    print(b)  
elif c>=a and c>=b:  
    print(c)
```

5

```
In [32]: #If the operator equals to 1 add a and b, then print the result.  
#If the operator equals to 2 subtract b from a, then print the result.  
#If the operator equals to 3 multiply a and b, then print the result.  
#If the operator equals to any other number, print "Invalid Input"(without quotes).  
a=int(input('1st number'))  
b=int(input('2nd number'))  
  
operator=int(input('enter the operator'))  
if(operator==1):  
    print(a+b)  
elif(operator==2):  
    print(b-a)  
elif(operator==3):  
    print(a*b)  
else:  
    print ('invalid')
```

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