

```
In [3]: 1 a = 10
        2 if a == 10:
        3     print("This is my first condition")
```

This is my first condition

```
In [4]: 1 b = 10
        2 if b == 11:
        3     print("This is my first condition")
```

```
In [5]: 1 a = 10
        2 if a > 5:

File "<ipython-input-5-f615b5cd58bb>", line 2
    if a > 5:
        ^
SyntaxError: unexpected EOF while parsing
```

```
In [6]: 1 a = 10
        2 if a > 5:
        3     pass
```

```
In [7]: 1 a = 10
        2 if a != 11:
        3     print("My condition is false")
        4 else:
        5     print("Print this")
```

My condition is false

```
In [8]: 1 a = 10
        2 if a == 11:
        3     print("My condition is false")
        4 else:
        5     print("Print this")
```

Print this

```
In [9]: 1 a = 10
        2 if a == 12:
        3     print("Here we are trying to compare 10 with 12")
        4 elif a == 11:
        5     print("Here we are trying to compare 10 with 11")
        6 else:
        7     print("If the above blocks fail then print this")
```

If the above blocks fail then print this

```
In [10]: 1 a = 10
          2 if a == 12:
          3     print("Here we are trying to compare 10 with 12")
          4 elif a == 10:
          5     print("Here we are trying to compare 10 with 11")
          6 else:
          7     print("If the above blocks fail then print this")
```

Here we are trying to compare 10 with 11

```
In [11]: 1 price = 500
          2 if price > 500:
          3     print("I can't buy a jacket")
          4 elif price <= 500:
          5     print("I can buy a jacket")
```

I can buy a jacket

```
In [14]: 1 price = 500
          2 if price > 500:
          3     print("I can't buy a jacket")
          4 elif price < 500:
          5     print("I can buy a jacket")
          6 elif price == 500:
          7     print("I can't decide")
          8 else:
          9     print("Invalid input")
```

I can't decide

```
In [15]: 1 price > 500
```

Out[15]: False

```
In [16]: 1 price < 500
```

Out[16]: False

```
In [17]: 1 price == 500
```

Out[17]: True

```
In [18]: 1 l = [1,2,3,4,5]
```

```
In [19]: 1 2 in l
```

Out[19]: True

```
In [20]: 1 if 2 in l:
         2     print("Perform a task")
         3 else:
         4     print("Don't perform a task")
```

Perform a task

```
In [22]: 1 if 1 in l:
         2     print("Perform a task")
         3 elif 2 in l:
         4     print("Don't perform a task")
         5 elif 3 in l:
         6     print("Can't decide")
```

Perform a task

```
In [23]: 1 a = 400
```

```
In [24]: 1 b = input()
```

12345

```
In [25]: 1 b
```

Out[25]: '12345'

```
In [26]: 1 type(b)
```

Out[26]: str

```
In [27]: 1 c = int(input())
```

400

```
In [28]: 1 type(c)
```

Out[28]: int

```
In [8]: 1 price = int(input())
2 if price <= 500:
3     print("I will be able to buy something")
4     if price <= 100:
5         print("I will be able to buy a jacket")
6     elif price <= 200:
7         print("I can buy a shirt")
8     elif price <= 300:
9         print("I can buy a hoodie")
10    elif price <= 400:
11        print("I can buy a vest")
12    else:
13        print("I can buy a tie")
14 else:
15     print("I won't be able to buy anything")
```

300

I will be able to buy something

I can buy a hoodie

```
In [12]: 1 marks = int(input("Enter the marks: "))
2 if marks > 600:
3     print("Try GRE")
4 elif marks < 600:
5     print("No GRE")
6     if marks < 500:
7         print("Try TOEFL")
8         if marks < 400:
9             print("Try IELTS")
10 else:
11     print("Repeat")
```

Enter the marks: 700

Try GRE

```
In [14]: 1 val = float(input("Enter a floating point number: "))
2 if val >= 0:
3     if val == 0:
4         print("Entered value is zero")
5     else:
6         print("Entered value is a positive number")
7 else:
8     print("Entered number is a negative number")
```

Enter a floating point number: -1

Entered number is a negative number

```
In [15]: 1 a = 10
2 if a <= 10:
3     print("Try to do something")
```

Try to do something

```
In [17]: 1 a = 10
          2 if a < 10 or a > 10:
          3     print("Try to do something")
```

```
In [18]: 1 a = 10
          2 if a < 10 or a == 10:
          3     print("Try to do something")
```

Try to do something

```
In [19]: 1 a = 10
          2 if a < 10 and a == 10:
          3     print("Try to do something")
```

```
In [20]: 1 a = 10
          2 if a < 10 and a > 10:
          3     print("Try to do something")
```

```
In [21]: 1 a = 10
          2 if a <= 10 and a >= 10:
          3     print("Try to do something")
```

Try to do something

```
In [22]: 1 a = 15 and 20
```

```
In [23]: 1 a
```

Out[23]: 20

```
In [24]: 1 a = 15 or 20
```

```
In [25]: 1 a
```

Out[25]: 15

```
In [28]: 1 a = 10 and 20 and 30
```

```
In [29]: 1 a
```

Out[29]: 30

```
In [31]: 1 a = 10 or 20 or 30
```

```
In [32]: 1 a
```

Out[32]: 10

```
In [33]: 1 Name = "Apurva"
2 if Name == 'Apurva' or Name == 'apurva':
3     print(Name)
```

Apurva

```
In [34]: 1 Name = "Apurva"
2 if Name == 'Apurva' and Name == 'apurva':
3     print(Name)
```

```
In [35]: 1 a = 10
2 b = 20
3 c = 30
4 d = 40
5 if a == 9 and b == 19 and c == 29 and d == 30:
6     print("Lets do something")
```

```
In [36]: 1 a = 10
2 b = 20
3 c = 30
4 d = 40
5 if a == 9 and b == 20 and c == 30 and d == 40:
6     print("Lets do something")
```

```
In [37]: 1 a = 10
2 b = 20
3 c = 30
4 d = 40
5 if a == 9 or b == 20 and c == 30 and d == 40:
6     print("Lets do something")
```

Lets do something

```
In [40]: 1 d = {"key1" : 'value1', 'key2' : 'ineuron', 'key3': 'value3'}
```

```
In [44]: 1 if d['key1'] == 'value1' and d['key2'] == 'ineuron' and d['key3'] == 'value3':
2     print("All values are correct")
3     print(list(d.values()))
```

All values are correct
['value1', 'ineuron', 'value3']

```
In [45]: 1 l = [1,2,3,4,5, 'Apurva', 3.14]
```

```
In [46]: 1 l[0]
```

Out[46]: 1

```
In [47]: 1 l[1:-1]
```

Out[47]: [2, 3, 4, 5, 'Apurva']

```
In [49]: 1 for i in l:
        2     print(i)
```

```
1
2
3
4
5
Apurva
3.14
```

```
In [50]: 1 for i in l:
        2     print(i + 1)
```

```
2
3
4
5
6
```

```
-----
TypeError                                Traceback (most recent call last)
<ipython-input-50-d0964e473d59> in <module>
      1 for i in l:
----> 2     print(i + 1)
```

TypeError: can only concatenate str (not "int") to str

```
In [72]: 1 for i in l:
        2     if type(i) == str:
        3         print(i + '1')
        4     elif type(i) == int:
        5         print(i + 1)
        6     else:
        7         print(round((i + 1.00), 2))
```

```
2
3
4
5
6
Apurva1
4.14
```

```
In [64]: 1 l1 = []
        2 for i in l:
        3     if type(i) == int:
        4         l1.append(i)
        5     print(l1)
```

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

```
In [89]: 1 person = input("Enter gender: ")
2 bill = float(input("Enter bill amount: "))
3 if person == 'female':
4     if bill >= 2000:
5         discount = 0.4*2000
6         bill = bill - discount
7         print("{:.2f}".format(bill))
8     else:
9         discount = 0.2*2000
10        bill = bill - discount
11        print("{:.2f}".format(bill))
12 else:
13     if bill >= 3000:
14         discount = 0.25*3000
15         bill = bill - discount
16         print("{:.2f}".format(bill))
17     else:
18         discount = 0.05*2000
19         bill = bill - discount
20         print("{:.2f}".format(bill))
```

Enter gender: male
Enter bill amount: 3500
2750.00

```
In [87]: 1 person = input("Enter gender: ")
2 bill = float(input("Enter bill amount: "))
3 if person == 'female':
4     if bill >= 2000:
5         discount = 0.4 * 2000
6         bill -= discount
7         print(round(bill, 2))
8     else:
9         discount = 0.2 * 2000
10        bill -= discount
11        print(round(bill, 2))
12 else:
13     if bill >= 3000:
14         discount = 0.25 * 3000
15         bill -= discount
16         print(round(bill, 2))
17     else:
18         discount = 0.05 * 2000
19         bill -= discount
20         print(round(bill, 2))
```

Enter gender: male
Enter bill amount: 3500
2750.0


```
In [92]: 1 for i in l:
          2     if type(i) == str:
          3         break
          4     print(i)
```

```
1
2
3
4
5
```

```
In [93]: 1 for i in l:
          2     if type(i) == str:
          3         break
          4     print(i)
```

Apurva

```
In [96]: 1 a = 10
          2 if a < 8 :
          3     print("Print this if condition is true")
          4 else :
          5     print("Print this if condition is false")
```

Print this if condition is false

```
In [99]: 1 l = [1,2,3,4,'CK',2020.12]
          2 for i in l:
          3     if type(i) == int :
          4         print(i+1)
          5     elif type(i) == str:
          6         print(i +str(1))
          7     else:
          8         print(i + float(1))
```

```
2
3
4
5
CK1
2021.12
```

```
In [105]: 1 marks =int(input())
           2 if marks > 600:
           3     print("GRE")
           4 elif marks < 600:
           5     print("No GRE")
           6 else:
           7     pass
```

600

```
In [118]: 1 val = int(input("Enter a number: "))
2 if val >= 0:
3     if val == 0:
4         print("Entered number is zero")
5     else:
6         print("The value is a positive number")
7 else:
8     print("The value is a negative number")
```

Enter a number: 0
Entered number is zero

```
In [120]: 1 a,b,c,d = 10,11,12,13
2
3 if a==10 or b==11 and c==12 and d==113: #Case 1
4     # this is equal to (a==10) or (b==11 and c==12 and d==113)
5     print('Lets do something 1')
6 if (a==10 and b==11 ) or (c==12 and d==113): #Case 2
7     # this is equal to (a==10 and b==11) or (c==12 and d==113)
8     print('Lets do something 2')
9 if a==10 and b==11 and c==12 and d==13 or a==9: #Case 3
10    # this is equal to (a==10 and b==11 and c==12 and d==13) or a==9
11    print('Lets do something 3')
12 if a==9 or b==11 and c==12 and d==13: #Case 4
13    # this is equal to (a==9) or (b==11 and c==12 and d==13)
14    print('Lets do something 4')
```

Lets do something 1
Lets do something 2
Lets do something 3
Lets do something 4

```
In [122]: 1 print(type(a) == int)
```

True

```
In [123]: 1 print(type(a) is int)
```

True

```
In [125]: 1 a = [9, 8,7,6,5,4,3,2,10]
2 for i in a :
3     print(i , end = ' ')
```

9 8 7 6 5 4 3 2 10

```
In [127]: 1 l = [0,0,0,0,0,1324,0,0,0,0,0]
          2
          3 for i in l:
          4     if i > 0 :
          5         print("We have an active alarm Number:",i)
          6         break
          7 else:
          8     print ("No alarm")
```

We have an active alarm Number: 1324

```
In [ ]: 1 #else part executes when for loop is succesfully executed
```

```
In [132]: 1 for i in l:
          2     if i > 0 :
          3         print("We have an active alarm Number:",i)
          4 else:
          5     print ("No alarm")
```

We have an active alarm Number: 1324

No alarm

```
In [142]: 1 l=[1,2,3,4,5,"sudh",234.45]
          2 l1=[]
          3 for i in l:
          4     if type(i) == int:
          5         l1 = l1 + [i]
          6     print(l1)
```

[1, 2, 3, 4, 5]

```
In [143]: 1 l1
```

Out[143]: [1, 2, 3, 4, 5]

```
In [146]: 1 a=int(input("Enter a number from 1 to 40 : "))
          2 if a >=1 or a <= 10:
          3     print ("white")
          4 elif a >= 11 or a <= 20:
          5     print ("yellow")
          6 elif a >= 21 or a <= 30:
          7     print ("blue")
          8 elif a >= 31 or a <= 40:
          9     print ("red")
         10 else :
         11     print("Please enter a number from 1 to 40")
```

Enter a number from 1 to 40 : 12

white

```
In [148]: 1 price = int(input("Enter an integer: "))
          2 if price < 5000 :
          3     print("I can buy a Jacket")
          4 elif price >= 5000 and price <= 10000 :
          5     print("I can buy a shirt and a Jacket")
          6 elif price > 10000 :
          7     print("I can buy 2 pair")
          8 else :
          9     print("Leave it")
```

Enter an integer: 3000

I can buy a Jacket

```
In [164]: 1 import calendar
2 n=int(input('Type 1 for monthly calendar or Type 2 for yearly calendar: '))
3
4 if n==1 :
5     yy=int(input('Enter the Year: '))
6     mm=int(input('Enter the month number: '))
7     print(calendar.month(yy,mm))
8 elif n==2:
9     yy=int(input('Enter the Year: '))
10    print (calendar.calendar(yy))
```

Type 1 for monthly calendar or Type 2 for yearly calendar: 2
Enter the Year: 2024

2024

January							February							March						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
1	2	3	4	5	6	7				1	2	3	4					1	2	3
8	9	10	11	12	13	14	5	6	7	8	9	10	11	4	5	6	7	8	9	10
15	16	17	18	19	20	21	12	13	14	15	16	17	18	11	12	13	14	15	16	17
22	23	24	25	26	27	28	19	20	21	22	23	24	25	18	19	20	21	22	23	24
29	30	31					26	27	28	29				25	26	27	28	29	30	31

April							May							June							
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	
1	2	3	4	5	6	7				1	2	3	4	5						1	2
8	9	10	11	12	13	14	6	7	8	9	10	11	12	3	4	5	6	7	8	9	
15	16	17	18	19	20	21	13	14	15	16	17	18	19	10	11	12	13	14	15	16	
22	23	24	25	26	27	28	20	21	22	23	24	25	26	17	18	19	20	21	22	23	
29	30						27	28	29	30	31			24	25	26	27	28	29	30	

July							August							September						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
1	2	3	4	5	6	7				1	2	3	4							1
8	9	10	11	12	13	14	5	6	7	8	9	10	11	2	3	4	5	6	7	8
15	16	17	18	19	20	21	12	13	14	15	16	17	18	9	10	11	12	13	14	15
22	23	24	25	26	27	28	19	20	21	22	23	24	25	16	17	18	19	20	21	22
29	30	31					26	27	28	29	30	31		23	24	25	26	27	28	29
														30						

October							November							December						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
	1	2	3	4	5	6					1	2	3							1
7	8	9	10	11	12	13	4	5	6	7	8	9	10	2	3	4	5	6	7	8
14	15	16	17	18	19	20	11	12	13	14	15	16	17	9	10	11	12	13	14	15
21	22	23	24	25	26	27	18	19	20	21	22	23	24	16	17	18	19	20	21	22
28	29	30	31				25	26	27	28	29	30		23	24	25	26	27	28	29
														30	31					

```
In [167]: 1 import calendar
2 n=int(input('Type 1 for monthly calendar or Type 2 for yearly calendar: '))
3
4 if n==1 :
5     yy=int(input('Enter the Year: '))
6     mm=int(input('Enter the month number: '))
7     print()
8     print(calendar.month(yy,mm))
9 elif n==2:
10    yy=int(input('Enter the Year: '))
11    print()
12    print(calendar.calendar(yy))
```

Type 1 for monthly calendar or Type 2 for yearly calendar: 1

Enter the Year: 2024

Enter the month number: 1

```
    January 2024
Mo Tu We Th Fr Sa Su
 1  2  3  4  5  6  7
 8  9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 31
```


In [187]:

```
1  # Python code to print Calendar
2  # Without use of Calendar module
3
4  mm = 2
5  yy = 2020
6
7  month = {1: 'January', 2: 'February', 3: 'March',
8           4: 'April', 5: 'May', 6: 'June', 7: 'July',
9           8: 'August', 9: 'September', 10: 'October',
10          11: 'November', 12: 'December'}
11
12  # code below for calculation of odd days
13  day = (yy-1)% 400
14  day = (day//100)*5 + ((day % 100) - (day % 100)//4) + ((day % 100)//4)*2
15  day = day % 7
16
17  nly = [31, 28, 31, 30, 31, 30,
18         31, 31, 30, 31, 30, 31]
19  ly = [31, 29, 31, 30, 31, 30,
20        31, 31, 30, 31, 30, 31]
21  s = 0
22
23  if yy % 4 == 0:
24      for i in range(mm-1):
25          s+= ly[i]
26  else:
27      for i in range(mm-1):
28          s+= nly[i]
29
30  day += s % 7
31  day = day % 7
32
33  # variable used for white space filling
34  # where date not present
35  space = ''
36  space = space.rjust(2, ' ')
37
38  # code below is to print the calendar
39  print(month[mm], yy)
40  print('Su', 'Mo', 'Tu', 'We', 'Th', 'Fr', 'Sa')
41
42  if mm == 9 or mm == 4 or mm == 6 or mm == 11:
43      for i in range(31 + day):
44
45          if i <= day:
46              print(space, end = ' ')
47          else:
48              print("{:2d}".format(i-day), end = ' ')
49              if (i + 1)% 7 == 0:
50                  print()
51  elif mm == 2:
52      if yy % 4 == 0:
53          p = 30
54      else:
55          p = 29
56
57  for i in range(p + day):
```



```

58         if i<= day:
59             print(space, end = ' ')
60         else:
61             print("{:2d}".format(i-day), end = ' ')
62             if (i + 1)% 7 == 0:
63                 print()
64     else:
65         for i in range(32 + day):
66
67             if i<= day:
68                 print(space, end = ' ')
69             else:
70                 print("{:2d}".format(i-day), end = ' ')
71                 if (i + 1)% 7 == 0:
72                     print()

```

```

February 2020
Su Mo Tu We Th Fr Sa
                1
 2  3  4  5  6  7  8
 9 10 11 12 13 14 15
16 17 18 19 20 21 22
23 24 25 26 27 28 29

```

```

In [201]: 1 Marks = int(input())
          2 if Marks > 600 :
          3     print("I will pass in GRE")
          4 elif Marks<=600 and Marks>=500:
          5     print("I will pass in TOFEL")
          6 elif Marks<=500 and Marks>=400:
          7     print("I will pass in Python")
          8 else :
          9     print("please try further examination")

```

```

600
I will pass in TOFEL

```

```

In [204]: 1 l = [3,4,5,6,7 , [23,456,67,8,78,78] , [345,56,87,8,98,9] , (234,6657,6) ,

```

```

In [205]: 1 l[-1]['key1']

```

```

Out[205]: 'Apurva'

```

```

In [208]: 1 list(l[-1].values())

```

```

Out[208]: ['Apurva', [23, 45, 656]]

```

```

In [209]: 1 list(l[-1].items())

```

```

Out[209]: [('key1', 'Apurva'), (234, [23, 45, 656])]

```

```

In [212]: 1 l[-1]

```

```

Out[212]: {'key1': 'Apurva', 234: [23, 45, 656]}

```

In [214]: 1 l[-1][234]

Out[214]: [23, 45, 656]

```
In [218]: 1 a=10
          2 b=11
          3 c=12
          4 d=12
          5 if a==9 or b==11 and c==12 and d==13:
          6     print("Lets do something")
          7 else :
          8     print("Nothing ")
```

Nothing

```
In [219]: 1 if a==9 or b==11 and c==12 and d==12:
          2     print("Lets do something")
          3 else :
          4     print("Nothing ")
```

Lets do something

In [220]: 1 1

Out[220]: [3,
4,
5,
6,
7,
[23, 456, 67, 8, 78, 78],
[345, 56, 87, 8, 98, 9],
(234, 6657, 6),
{'key1': 'Apurva', 234: [23, 45, 656]}]

```
In [224]: 1 for i in l:
          2     if type(i) == dict:
          3         print(list(i.keys()))
          4         print(list(i.values()))
```

['key1', 234]
['Apurva', [23, 45, 656]]

```
In [225]: 1 l=[1,2,3,"trip",234.65]
          2 for i in l:
          3     print(i)
```

1
2
3
trip
234.65

```
In [226]: 1 i = int(input())
          2 if type(i) == int :
          3     print("int")
          4 if type(i) == float :
          5     print("float")
          6 else :
          7     print ("invalid")
```

```
30
int
invalid
```

```
In [227]: 1 a = " Apurva"
          2 if a == "apurva" or a == "Apurva":
          3     print ("This is Apurva")
          4 else:
          5     print ("Nothing")
```

```
Nothing
```

```
In [245]: 1 l= [1,2,3,4,5,"sudh", 234.45]
          2
          3 for i in l:
          4     if type(i)== int:
          5         print(i+5)
          6     elif type(i)==float:
          7         print(i+10)
          8     elif type(i)==str:
          9         print(i.replace(i, "ineuron"))
         10     else:
         11         pass
         12 else:
         13     print('Nothing')
         14
```

```
6
7
8
9
10
ineuron
244.45
Nothing
```

```
In [250]: 1 d = {"a":200,"b":300}
          2 s = sum(d.values())
          3 print("The sum is",s)
```

```
The sum is 500
```

```
In [ ]: 1
```

