

day_2

February 25, 2023

```
[1]: age = 20  
     print("my age is:",age)
```

my age is: 20

0.1 formatting or f string in python

```
[2]: print("my age is:{age}")
```

my age is:{age}

```
[3]: print(f"my age is: {age}")
```

my age is: 20

```
[5]: ## format()  
     name="pushpak"  
     age=21  
     print("my name is {} and age is {}".format(name,age))
```

my name is pushpak and age is 21

```
[7]: ## place holder  
     name="pushpak"  
     age=21  
     print("my name is {firstname} and age is {age1}".  
           ↪format(firstname=name,age1=age))
```

my name is pushpak and age is 21

```
[10]: name="vootla pushpak"  
      age=21  
      degree="b.tech"  
  
      print("my name is {name1} and my age is {age1}. i completed my studies in_  
            ↪{degree1}".format(name1=name,age1=age,degree1=degree))
```

my name is vootla pushpak and my age is 21. i completed my studies in b.tech

```
[13]: print(f"my name is {name} and my age is {age}. i completed my studies in {degree}")
```

my name is vootla pushpak and my age is 21. i completed my studies in b.tech

1 control flow

1.1 decision making statements

```
[14]: # if statements
age=21
if age>=18:
    print("you are eligible to vote")
```

you are eligible to vote

```
[15]: # if statements
age=21
if age<18:
    print("you are eligible to vote")
```

```
[6]: # input from the runtime environment
input()
```

op

```
[6]: 'op'
```

```
[5]: # if-else statements
age=25
if age>=26:
    print("allowed to vote.")
else:
    print("not allowed.")
```

not allowed.

```
[13]: # defaultly it will take it as string. to change other types use type casting
name=input("Enter the name")
```

Enter the name prem

```
[9]: name
```

```
[9]: 'prem'
```

```
[11]: age=int(input("enter the age"))
```

entertheage 21

```
[12]: age
```

```
[12]: 21
```

```
[14]: type(age)
```

```
[14]: int
```

2 Task

2.1 Take a input of age

2.2 check whether age ≥ 18 and age ≤ 45

2.3 display a message you are young blood

```
[20]: age=int(input("enter the age"))
      if age>=18 and age<=45:
          print("you are young blood")
      else:
          print("you are old")
```

enter the age 58

you are old

```
[18]: True and True
```

```
[18]: True
```

```
[21]: True and False
```

```
[21]: False
```

```
[24]: ## mall - input the product price
      ## product >1000 rs 20% off
      ## print the product price after removing the discount
      ## product <=1000 rs 30% off
      ## print the product price after removing the discount
```

```
[34]: price=int(input("enter the product price"))
      if price>1000:
          print("the final price is {}".format(price*0.8))
      else:
          print("the final price is {}".format(price*0.7))
```

enter the product price 2500

the final price is 2000.0

```
[ ]: ## mall - input the product price  
## product >3000 rs 20% off  
## print the product price after removing the discount  
## product >=2000 rs and <=3000 30% off  
## print the product price after removing the discount  
## product <=1000 rs and <=2000 40% off  
## print the product price after removing the discount
```

```
[2]: price=int(input("enter the product price"))  
if price>3000:  
    print("the final price is {}".format(price*0.8))  
elif price>=2000 and price<=3000:  
    print("the final price is {}".format(price*0.7))  
elif price>=1000 and price<=2000:  
    print("the final price is {}".format(price*0.6))
```

enter the product price 1500

the final price is 900.0

```
[ ]: ## mall - input the product price  
## product >3000 rs 20% off  
## price is ==4000 you get a trip to Goa  
## print the product price after removing the discount  
## product >=2000 rs and <=3000 30% off  
## print the product price after removing the discount  
## price ==2999 u will get additional gift  
## product 100 rs and <=2000 40% off  
## print the product price after removing the discount
```

```
[10]: price=int(input("enter the product price"))  
if price>3000:  
    if price==4000:  
        print("you get a trip to goa")  
        print("the final price is {}".format(price*0.8))  
elif price>=2000 and price<=3000:  
    if price==2999:  
        print("u will get additional gift")  
        print("the final price is {}".format(price*0.7))  
elif price>=1000 and price<=2000:  
    print("the final price is {}".format(price*0.6))
```

enter the product price 4000

you get a trip to goa

the final price is 3200.0

```
[11]: ## comparison operator
      True==True
```

[11]: True

```
[14]: ## single statement
      val=int(input("enter the number"))
      if(val<=999):print("the number is less than or equal to 999")
      else:
          print("go home")
```

enter the number 88

the number is less than or equal to 999

3 loops ststements

3.1 while loop

3.2 for loop

3.3 nested loops

3.4 loop control(break,continue,pass)

```
[17]: # while loop for condition
      person_age=25
      while person_age<=60:
          print(person_age)
          person_age=person_age+1
      else:
          print("you need to retire")
```

25
26
27
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```
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58
59
60
you need to retire
```

```
[18]: ## atm machine
total_amount=1000
while total_amount!=0:
    print(total_amount)
    total_amount=total_amount-100
else:
    print("no money in the atm")
```

```
1000
900
800
700
600
500
400
300
200
100
no money in the atm
```

```
[23]: ## for loop for iteration
lst=["prem","pushpak","vootla",1,5,90]
```

```
[24]: type(lst)
```

```
[24]: list
```

```
[25]: lst[0]
```

```
[25]: 'prem'
```

```
[26]: for x in lst:  
      print(x)
```

```
prem  
pushpak  
vootla  
1  
5  
90
```

```
[27]: colour_list=["red","pink","black","blue"]
```

```
[28]: for a in colour_list:  
      print(a)  
      if a=="pink":  
          print("print is good colour")
```

```
red  
pink  
print is good colour  
black  
blue
```

```
[31]: ## String is a collection of elements  
fruit="mango"  
for x in fruit:  
    print(x,end='')
```

```
mango
```

```
[30]: fruit[3]
```

```
[30]: 'g'
```

```
[ ]: ## nested loops  
n=7
```

```
[37]: for i in range(1,6):  
      print(i)
```

```
1  
2
```

3
4
5

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

1
3
5

```
[41]: n=7  
      for i in range(0,n):  
          for j in range(0,i+1):  
              print("*",end=' ')  
          print("\r") //move to left most side
```

*
**


```
[ ]: ## loop controls  
     ## break and continue
```

```
[51]: fruits_list = ["mango","banana","grapees","orange","apple"]
```

```
[52]: for i in fruits_list:  
       if i=="orange":  
           print("fruit is orange")  
           break  
       print(i)
```

mango
banana
grapees
fruit is orange

```
[53]: for i in fruits_list:  
       if i=="orange":  
           print("fruit is orange")  
           pass  
       print(i)
```

mango


```
banana
grapees
fruit is orange
orange
apple
```

```
[54]: for i in fruits_list:
        if i=="orange":
            print("fruit is orange")
            continue
        print(i)
```

```
mango
banana
grapees
fruit is orange
apple
```

```
[56]: ''' This exaple shows the use of nested while loop to
        create a pyramid like structure'''
```

```
num_rows = int(input("Enter the number of rows: "))
row = 0 #row intialize
while(row < num_rows):
    row += 1 #Rows count increase
    s = num_rows - row #Spaces

    sc = 0 #Space counter intialize
    while(sc < s):
        print(" ", end='')
        sc += 1

    stars = 2*row-1 #Number of stars
    while(stars > 0):
        print("*", end='')
        stars -= 1

    print()
```

Enter the number of rows: 25

```

      *
     ***
    *****
   ********
  *********
 **********
***********

```


[]:	
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