Print Following pattern

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

In [ ]:

```
print(" * * *")

##Range function: range(start,stop,step)

range(0,5)   #0,1,2,3,4 same as slicing string
range(0,5,2)   #0,2,4

#For loop

for i in  range(0,5) :     ##start-stop-1
  print(i)

for i in  range(0,5,2) :
  print(i)

for i in range(5,1,-2):
    print(i)
```

```
 * * *
0
1
2
3
4
0
2
4
5
3
```

In [ ]:

```
for i in range(1,7):
    print("*" * i)
```

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

In [ ]:

```
#Print the output

1
12
123
1234
12345

for a in range(1,6) :     #create a row
  for b in  range(1,a+1) : #Create a column
```

```
    print(b,sep=" ", end="")
  print()
```

```
1
12
123
1234
12345
```

In [ ]:

```
for i in range(11,6,-3):
    print(i)
```

```
11
8
```

In [ ]:

```
for b in range(6) :
  for a in range(6):
    print("*",end=' ')
  print()
```

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

In [ ]:

```
for b in range(6):
  for a in range(b+1):
    print("*",end=' ')
  print()
```

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

In [ ]:

```
1
12
123
1234
12345
123456


for i in range(1,7) :   ##For rows
    for j in range(1,i+1) : ##For columns
     print(j,end='')
    print()
```

```
1
12
123
1234
12345
123456
```

In [ ]:

```
##Conditional Statement (IF/IF-ELSE)
```

```
"""A company givivng bonus to employes of 5% who working from more than 5yrs in that comp
any.
Ask the employes abou their salary and yoe in company"""


print("Enter Salary")
sal = input()
print("year of experince")
Yoe = input()

if (int(Yoe)>5) :
  print("Bonus is",0.05* int(sal))
else :
  print("Sorry No Bonus")
```

```
Enter Salary
600000
year of experince
2
Sorry No Bonus
```

In [ ]:

```
##Mixed datatypes

List_of_dict= [ 10,True,23.5,
                {'name':'Tom','age':10},     ##0th index
                {'name':'Mark','age':5},     ##1st index
                {'name':'Pam','age':7}       ##2nd index
           ]

print(List_of_dict[0])
print(List_of_dict[1])

for l in List_of_dict :
  print(l)


for l in List_of_dict :
  print(isinstance(l,bool))          ###isinstance gives you the datatype is true or fals
e
```

```
10
True
10

---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
<ipython-input-44-3c6072a82c6a> in <cell line: 12>()
     12 for l in List_of_dict :
     13   print(l)
---> 14   print(df.l)
     15
     16

NameError: name 'df' is not defined
```

In [ ]:

```
"""Accept the percentage from the user and display the  grade according to the
following criteria, write 'done' in the box below once you are done!"""


print("Enter Marks")
Perc = float(input())

if (float(Marks)>80) :
    print("A+")
elif (float(60<Marks<80)) :
    print("A")
elif (float(50<Marks<60)) :
    print("B+")
```

```
elif (float(45<Marks<50)) :
    print("B")
elif (float(25<Marks<45)) :
    print("C")
else  :
    print("D")
```

```
Enter Marks
67.6

---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
<ipython-input-1-a05abef3a828> in <cell line: 8>()
      6 Perc = float(input())
      7
----> 8 if (float(Marks)>80) :
      9     print("A+")
     10 elif (float(60<Marks<80)) :

NameError: name 'Marks' is not defined
```

In [ ]:

```
l = [44.7, 5, 22.3, 7, 31.5, 1, 9.5, 61, 5.34, 68.05, 67,
21, 45, 62.12, 43, 10, 23, 65, 90, 14, 83, 62, 30.54, 21.5, 11, 56, 32, 56, 90.63, 99,
45.90, 67, 33, 53, 42, 87, 67, 59, 90, 44, 88, 12.90, 45, 30.54, 21.5, 11, 56, 32, 56,
90.63, 99, 45.90, 67]
sum = 0
for i in l:
  sum = sum+i
  sum += i

print ("The sum is", sum)

print(l)
```

```
The sum is 4961.1
[44.7, 5, 22.3, 7, 31.5, 1, 9.5, 61, 5.34, 68.05, 67, 21, 45, 62.12, 43, 10, 23, 65, 90,
14, 83, 62, 30.54, 21.5, 11, 56, 32, 56, 90.63, 99, 45.9, 67, 33, 53, 42, 87, 67, 59, 90,
44, 88, 12.9, 45, 30.54, 21.5, 11, 56, 32, 56, 90.63, 99, 45.9, 67]
```