

## Nested for loops

Just like nested if statements, nested loops are also allowed and commonly used.

Write a program to accept an integer less than 10 (call this n) from the user and print a n by n box of '\*'s

In [6]:

```
'''
Write the program using two for loops
'''
n = int(input('Please enter an integer less than 10: '))
for i in range(1,n+1):
    for j in range(0, n):
        print('*', end='') #Note the end value in this print statement
    print() # What happens when you remove this print statement
```

```
Please enter an integer less than 10: 3
***
***
***
```

In [7]:

```
'''
The above program can also be written using two while loops
'''
n = int(input('Please enter an integer less than 10: '))
row_indx = 1
col_indx = 1
while row_indx <= n:
    while col_indx <= n:
        print('*', end='')
        col_indx += 1
    print()
    col_indx = 1
    row_indx += 1
```

```
Please enter an integer less than 10: 5
*****
*****
*****
*****
*****
```

In [8]:

```
'''
We can write the same program using one each of the for loop and the while loop
'''
n = int(input('Please enter an integer less than 10: '))
col_indx = 1
for row_indx in range(1,n+1):
    while col_indx <= n:
        print('*', end='')
        col_indx += 1
    print()
    col_indx = 1
```

```
Please enter an integer less than 10: 4
****
****
****
****
```

In [ ]:

*# Write the program with the for loop as the inner loop and the while loop as the outer loop*