```
# print the pattern as it is manually.

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



steps:
1) take input
2) run loop for go over rows
3) print row correctly.
```

## print() automatically put the enter at the end of command. Empty print() print empty space. For that print() command have 'end' parameter which have give you choice how you end your line.By defalult it is '\n'.

In [1]:

```
# catch in program
num = int(input())
i = 1
while(i<=num):
    #for printing ith row
    j = 1
    while(j <= num):
        #for printing jth column
        print('*')
        j = j + 1
    print()
    i = i + 1
```

```
3
*
*
*

*
*
*

*
*
*
```

In [2]:

```
# * print every time 1 attached with it.
num = int(input())
i = 1
while(i<=num):
    #for printing ith row
    j = 1
    while(j <= num):
        #for printing jth column
        print('*',end='1')
        j = j + 1
    print()
    i = i + 1
```

```
3
*1*1*1
*1*1*1
*1*1*1
```

In [3]:

```
# * print every time 1 attached with it.
num = int(input())
i = 1
while(i<=num):
    #for printing ith row
    j = 1
    while(j <= num):
        #for printing jth column
        print('*',end='1')
        j = j + 1

    i = i + 1
```

```
3
*1*1*1*1*1*1*1*1*1
```

In [4]:

```
#correct code
# * print every time 1 attached with it.
num = int(input())
i = 1
while(i<=num):
    #for printing ith row
    j = 1
    while(j <= num):
        #for printing jth column
        print('*',end='')
        j = j + 1
    print() # new line for each row
    i = i + 1
```

```
4
****
****
****
****
```

# Square Patterns

## pattern 1

```
1111
2222
3333
4444
```

```
1)n = 4
2) each row have n columns
3) what to print is depend on i.
```

In [5]:

```
# small catch
num = int(input())
i = 1
while(i <= num):
    j = 1
    while(j<=num):
        print(i, end='')
        j = j + 1
    i = i + 1
```

```
5
1111122222333334444455555
```

In [6]:

```
#catch 2
num = int(input())
i = 1
while(i <= num):
    j = 1
    while(j<=num):
        print(i, end='')
        j = j + 1
    print(end='\t')
    i = i + 1
```

```
5
11111	22222	33333	44444	55555
```

In [7]:

```
#suitable code
num = int(input())
i = 1
while(i <= num):
    j = 1
    while(j<=num):
        print(i, end='')
        j = j + 1
    print()
    i = i + 1
```

```
5
11111
22222
33333
44444
55555
```

## pattern 2

```
1234
1234
1234
1234

1)n = 4
2) each row have n columns
3) what to print is depend on j.
```

In [9]:

```
num = int(input())
i = 1
while(i <= num):
    j = 1
    while(j<=num):
        print(j, end='')
        j = j + 1
    print()
    i = i + 1
```

```
4
1234
1234
1234
1234
```

## pattern 3

```
4321
4321
4321
4321

1)n = 4
2) each row have n columns
3) what to print is depend on  n and j. As , j increases , j decreases.
```

In [17]:

```
num = int(input())
i = 1
while(i<=num):
    j = 1
    while(j<=num):
        print(num-j + 1, end='')
        j = j + 1
    print()
    i = i + 1
```

```
4
4321
4321
4321
4321
```

# Triangular pattern

In [ ]:

In [ ]: