

## Square Pattern

**Problem Description:** You are given with an input number N, then you have to print the given pattern corresponding to that number N.

For example if N=4

Pattern output : 4444

4444

4444

4444

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### How to approach?

1. Take N as input from the user.
2. Figure out the number of rows, (which is N here) and run a loop for that.
3. Now, figure out number of columns to be printed in ith row or generic row (which is the N here) and run a loop for that within this.
4. Now, figure out “What to print?” in a particular (row, column). It can depend on the column number, row number or N which is N here.

Pseudo code for the given problem:

*input=N*

*i=1*

*While i is less than or equal to N:*

*j=1*

*While j is less than or equal to N:*

*print(N)*

*Increment j by 1*

*Increment i by 1*

*Add a new line here*

❑ Let us dry run the Code for N=4

- $i=1 (<=4)$ 
  - $j=1 (<=4)$ , so print 4.
  - $j=2 (<=4)$ , so print 4.
  - $j=3 (<=4)$ , so print 4.
  - $j=4 (<=4)$ , so print 4.

→  $j=5(>4)$ , move out of the inner loop with a new line.

- $i=2(<=4)$ 
  - $j=1 (<=4)$ , so print 4.
  - $j=2 (<=4)$ , so print 4.
  - $j=3 (<=4)$ , so print 4.
  - $j=4 (<=4)$ , so print 4.
  - $j=5(>4)$ , move out of the inner loop with a new line.
- $i=3(<=4)$ 
  - $j=1 (<=4)$ , so print 4.
  - $j=2 (<=4)$ , so print 4.
  - $j=3 (<=4)$ , so print 4.
  - $j=4 (<=4)$ , so print 4.
  - $j=5(>4)$ , move out of the inner loop with a new line.
- $i=4(<=4)$ 
  - $j=1 (<=4)$ , so print 4.
  - $j=2 (<=4)$ , so print 4.
  - $j=3 (<=4)$ , so print 4.
  - $j=4 (<=4)$ , so print 4.
  - $j=5(>4)$ , move out of the inner loop with a new line.
- $i=5(>4)$ , move out of the loop

So , final output:

4 4 4 4

4 4 4 4

4 4 4 4

4 4 4 4