Assignment 01

Name: Subhomoy Haldar

Roll: IMH/10010/17

# Problem Statement

Display a ‘Big N’ composed with the character ‘N’. Vary the size of the ‘Big N’ as per user input. For example, the input can be 10, 15, 20, etc.

# Pseudocode

input\_str := input('Enter the height : ')

n := input\_str.int()

if n < 3 {

println('Height must be at least 3')

return

}

for row in 0 .. n {

if row == 0 || row == n - 1 {

print('N')

for col in 1 .. n - 1 {

print(' ')

}

print('N')

} else {

print('N')

for col in 1 .. row {

print(' ')

}

print('N')

for col in 2 .. n - row {

print(' ')

}

print('N')

}

println('')

}

# Description

1. First, we obtain the height of the Big N as an input from the user.
2. We ensure that the height is at least 3.
3. We iterate over the rows from 0 (inclusive) to n (exclusive).
4. If we are at the top or bottom row, that is, when value of row is 0 or n - 1, we print an N, followed by an appropriate amount of space (n – 2), then another N.
5. If we are in one of the middle rows, first we print N, then 'row - 1' spaces, then another N, then 'n - 2 - row' spaces, then a final N.
6. We print a newline to get to the next output row.

# Test Cases

Enter the height : 5

N N

NN N

N N N

N NN

N N

Enter the height : 10

N N

NN N

N N N

N N N

N N N

N N N

N N N

N N N

N NN

N N

Enter the height : 15

N N

NN N

N N N

N N N

N N N

N N N

N N N

N N N

N N N

N N N

N N N

N N N

N N N

N NN

N N

Enter the height : 20

N N

NN N

N N N

N N N

N N N

N N N

N N N

N N N

N N N

N N N

N N N

N N N

N N N

N N N

N N N

N N N

N N N

N N N

N NN

N N