# DSA ASSIGNMENT DAY-02

## QUESTION:

Find the time complexity of the following Pseudo Code

for( i = 1 ; i <= n ; i = i\*2)

for( j = 1 ; j <= i ; j++)

print(“Hello”)

## SOLUTION:

i=1

j=1 time

i=2

j=2 times

i=4

j=4 times

i=8

J=8 times

So ,it increases in the powers of 2

2^0 2^1 2^2 2^3 2^4 2^5…………………..2^k

2^k = n

K= log n

#### Therefore, the time complexity is O(log n)