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)