



# Time and space complexity

Tags

- Amount of time taken as the function of input size .
- rate at which time taken and space increases w.r.t. input size .

→ T.C. ≠ time taken.

→ Theoretical concept .

Always try to find out worst case time complexity

- largest term
- ignore constants

Big O Notation : Upper bound (max)

Big omega : lower bound (best , min.)

Big theta : average

## Space complexity :

Auxiliary space + input size .

Auxiliary space :

space that taken to store the problem .

input space :

space that you use to store the input .

## Some complexity curve :

