TIME COMPLEXITY

- $O(1) \Rightarrow$ constant function
- $O(\log n) \Rightarrow$ Logarithmic funct
- $O(n) \Rightarrow$ Linear 11-11
- $O(n \log n)$
- $O(n^2) \Rightarrow$ Quadratic
- $O(n^2 \log n)$
- $O(n^3) \Rightarrow$ Cubic
- $O(2^n) \Rightarrow$ Exponential
- $O(n!)$

— takes least time

↓ takes higher time

— Space Complexity

— algorithm occupies that much memory

TC V/s SC

① select TC which is less when programs need to work faster →

— select SC even if that takes a bit of ↑ memory

② choose TC even if it has ↑ time executing ⟵ space/memory is limited