**Basics of Time & Space Complexity**

* **Time Complexity:**

**🡪**Rate at which the time taken increases with respect to the input size

🡪Time Complexity != Time Taken

🡪It can’t be represented in terms of seconds. Instead it is represented in terms of **Big O Notation**

* **Three Rules while calculating Time Complexity:-**

1. Always calculate TC in terms of worst case scenario

2. Avoid constants

3. Avoid lower values

* **Just for the knowledge remember this:-**

🡪Big-Oh (O) Complexity 🡪 Worst Case [Upper Bound]

🡪Theta (θ) Complexity 🡪 Average Case

🡪Omega (Ω) Complexity 🡪 Best Case [Lower Bound]

* **Space Complexity:-**

**🡪Auxiliary Space:** Space that you take to solve the problem

**🡪Input Space**: Space that you take to store the input