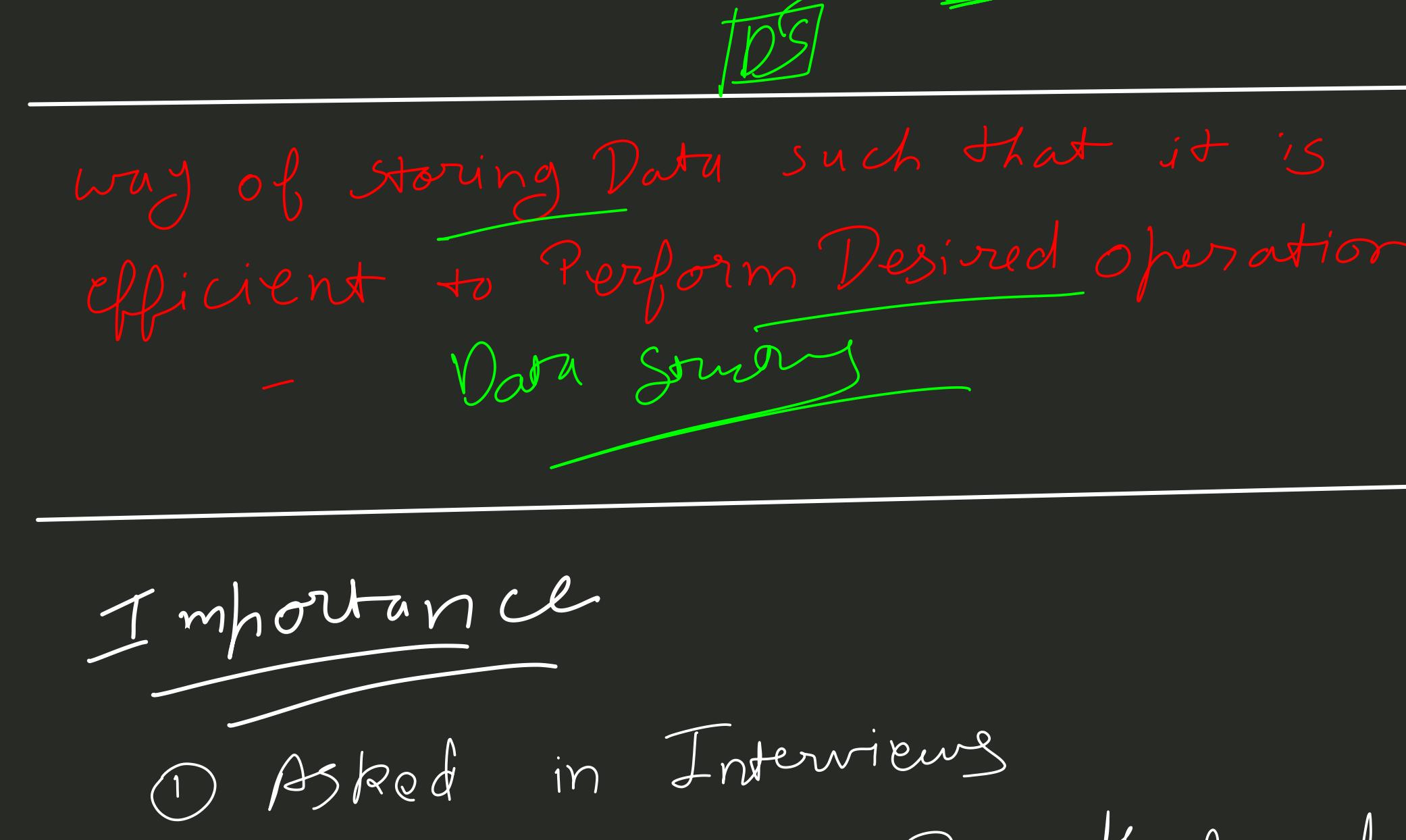
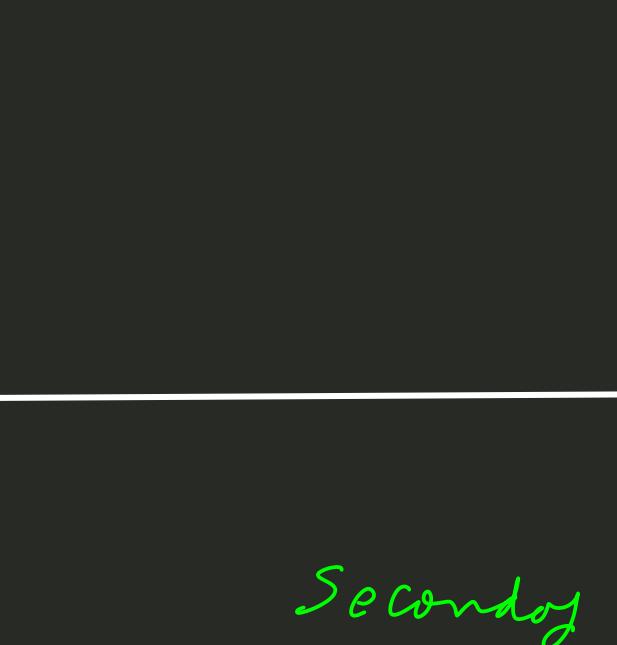


# AGENDA

- ① Data Structure ✓
- ② Importance ✓
- ③ Constraint ✓

way of storing data



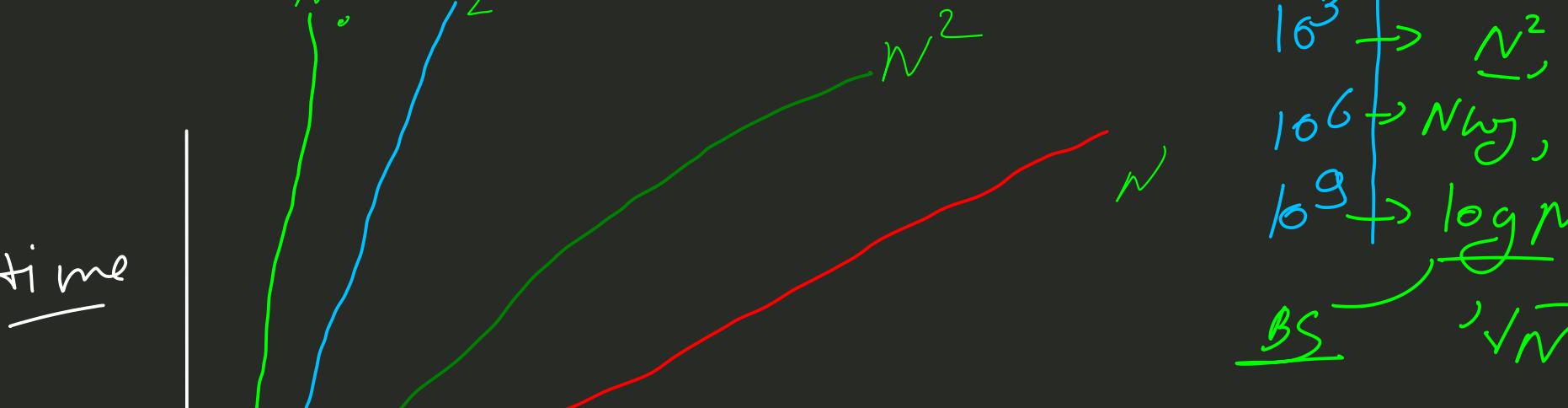
way of storing Data such that it is efficient to Perform Desired operation.

- Data Storing

## Importance

- ① Asked in Interviews

- ② Many Question are Directly based upon it.



$$10^6 \rightarrow N \quad N \log N \quad \text{Thumb Rule} \rightarrow 10^8 \text{ item/sec}$$

$$\leq N \leq 10^6 \rightarrow O(N) \quad 1 \text{ sec} \quad 10^3 \rightarrow N^2$$

$$\text{Memory} \rightarrow O(N^2) \rightarrow \text{TLE}$$

$$10^6 \rightarrow N^3 \quad 10^9 \rightarrow 2^N \quad 10^{12} \rightarrow N^4$$

$$10^6 \rightarrow N^5, N^6 \quad 10^9 \rightarrow \log N \quad 10^{12} \rightarrow \sqrt{N}$$

$$10^6 \rightarrow N! \quad 10^{12} \rightarrow N^{12}$$

$$10^6 \rightarrow N^{12} \quad 10$$