

STL → Built in Function
Bits - stdc++.h

sort(arr, arr + n) → Merge sort $O(n \log n)$ /
Quick sort

* Searching → find(...) → Binary Search

Search

car(7)

1 2 3 4 5 6 7

car(1): 1 ... 7 x

2 ... 7 x

3 ... 7 x

...

7 ... 7 ✓ → return

N data $\rightarrow O(N)$

Sequential Search

* Binary Search

* Pasukan terurut

cari 7

1 2 3 4 5 6 7

mid

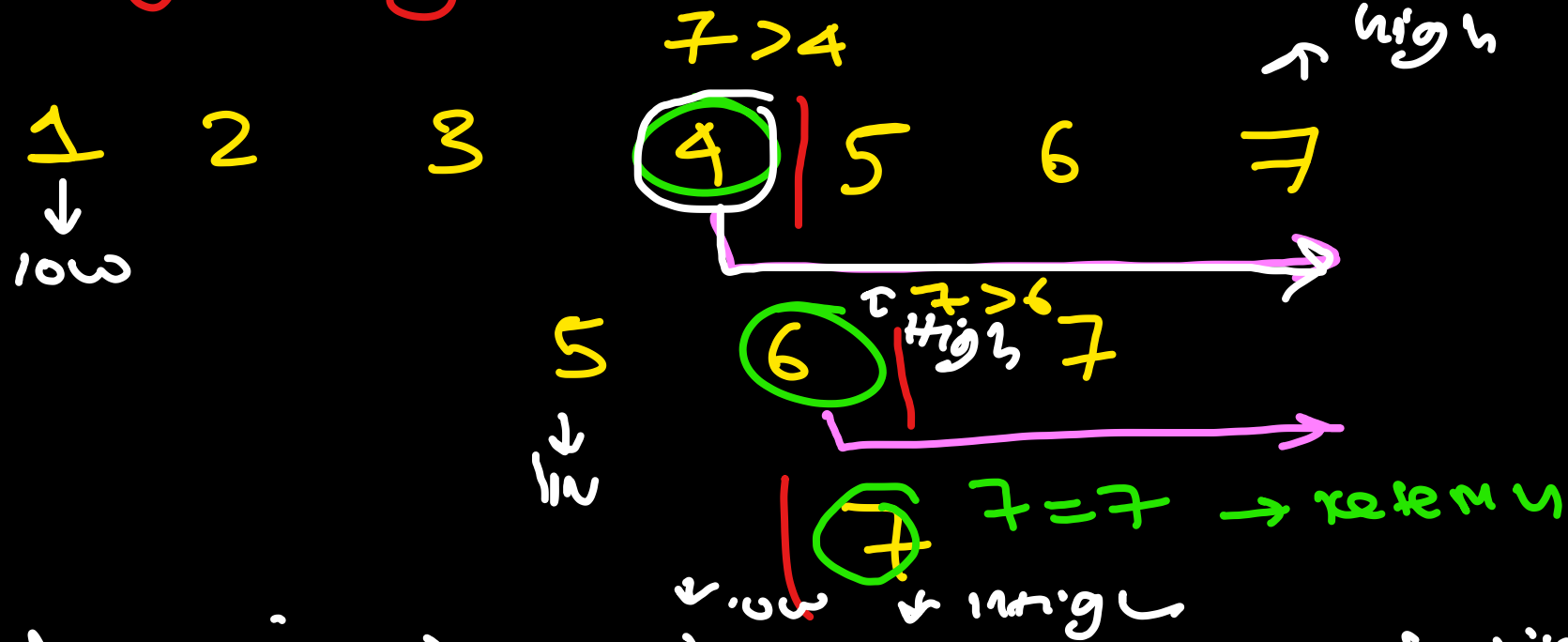
* Mulai dari tengah

* Cek apakah data yang kita cari
 $> \text{mid}$, $< \text{mid}$, $= \text{mid}$

$\text{mid} = 4$, $\text{cari} = 7$

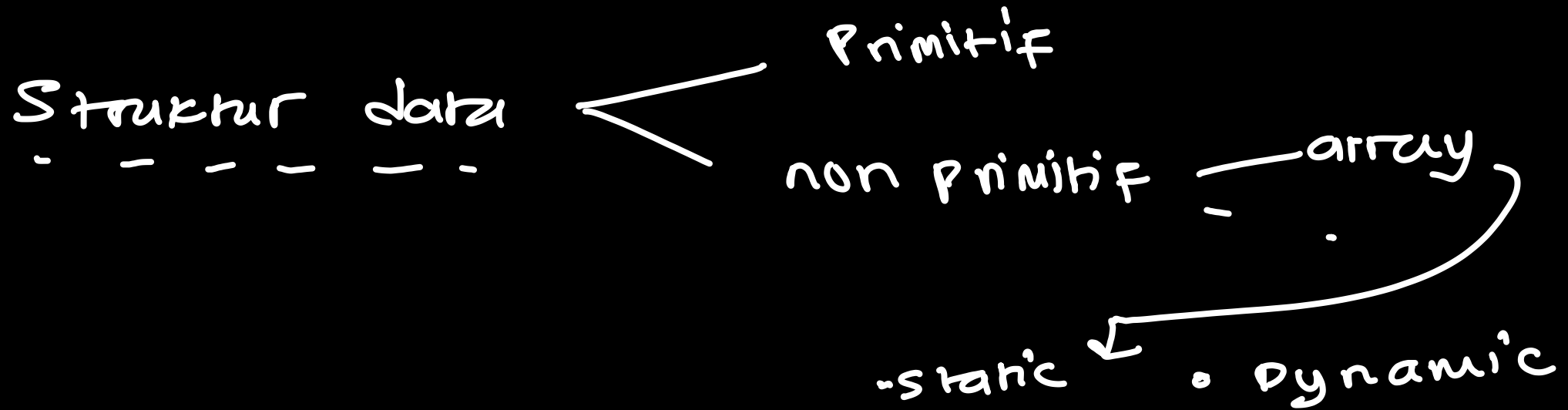
- data dicari $> \text{mid}$ → ke kanan
- data dicari $< \text{mid}$ → ke kiri
- data dicari $= \text{mid}$ → ketemu

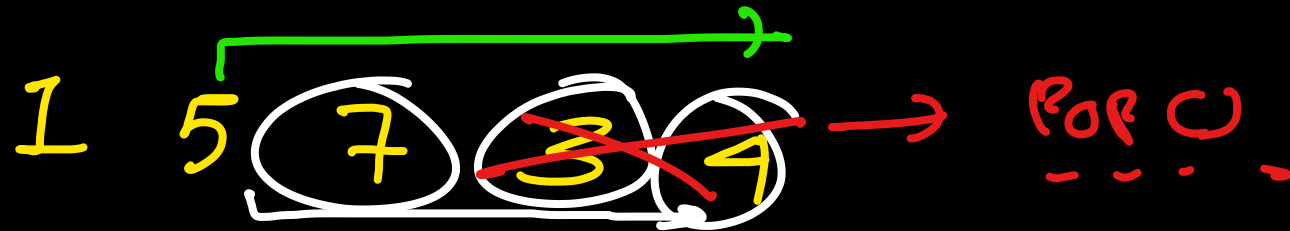
* ulangi langkah sampai data ditemukan



Mencari data dgn cara Memerhatikan
Median & Menentukan arah pencarian
setelahnya [l_{aron} , r_{in}] \rightarrow Binary search

$12/2/2/2 \rightarrow 0 \quad (\log N)$





$$B_0 = 1$$

$$B_j = j > i$$

$$B_1 = 5$$

$$B_i \geq B_j \quad \text{binary search} \rightarrow 1$$

Set $P_1 = \{ \} \rightarrow 1 \text{ kai}$

$$P_5 = \{ 3, 4 \} \rightarrow 1 \text{ kai}$$

$$\text{total} = 5$$

$$B_2 = 7 =$$

$$P_7 = \{ \} \rightarrow 1 \text{ kai}$$

