i) vector
ii) set
iii) map
iv) unordered_set
v) unordered_map
vi) stack/Queue
       etc....

anti-pattern

int arr[2];

vc = {2}

vc = {2, 3}

vc = {2, 3, 4, —}

vc = {2, 3, 4, 5}

vc = {2, 3, 4, 5, 6, —, —, —}

$128 \rightarrow 255$

$2+4+8+16+32+64+128$

255

$2NT$ exec
$\approx$ constant

set<int> st;

$\rightarrow$ insert(elem)

$\rightarrow$ remove(elem)

$\rightarrow$ search(elem)

$\rightarrow$ lower_bound()/upper_bound()

$O(\log_2 N)$

N = number of elements
in set

$N = 10^6$

$\log_2 N = 20$