

ADTs

ADTs = Set of values + Set of operations

int \rightarrow 9, 10, 12

myArray \rightarrow representation

total_size
used_size
base address

+

operations =

maxL()
getLi()
set(i, num)

add(arr)

9 + 12 = 21

operator
↓
Details abstracted

1 2
+ 9
21

Stack/Heap

heap

stack

main
ptr

VBI

Code segment

Memory

ptr [int*] malloc(7 * sizeof(int))

cannot extend using realloc!

4 or 2

ADTs

ADTs = Set of Values + Set of operations

int \rightarrow 9, 10, 12

myArray \rightarrow representation

total_size \rightarrow 6
used_size \rightarrow 3
base address

operations

max(), get(i), set(i, num), add(arr)

12
+ 9
21

1 2 3 4 5
190 191 192 193 194

17 18 22 \rightarrow for later use

C language Code

struct myArray {
int total_size;
int used_size;
}

memory to be reserved
memory to be used!

Implementation: ✓