

43 14

1 2 3 4 5 6 7 8 9

index  $\rightarrow$  got value.

memory  
 $\Rightarrow$  continuous.

random access  $O(1)$ .

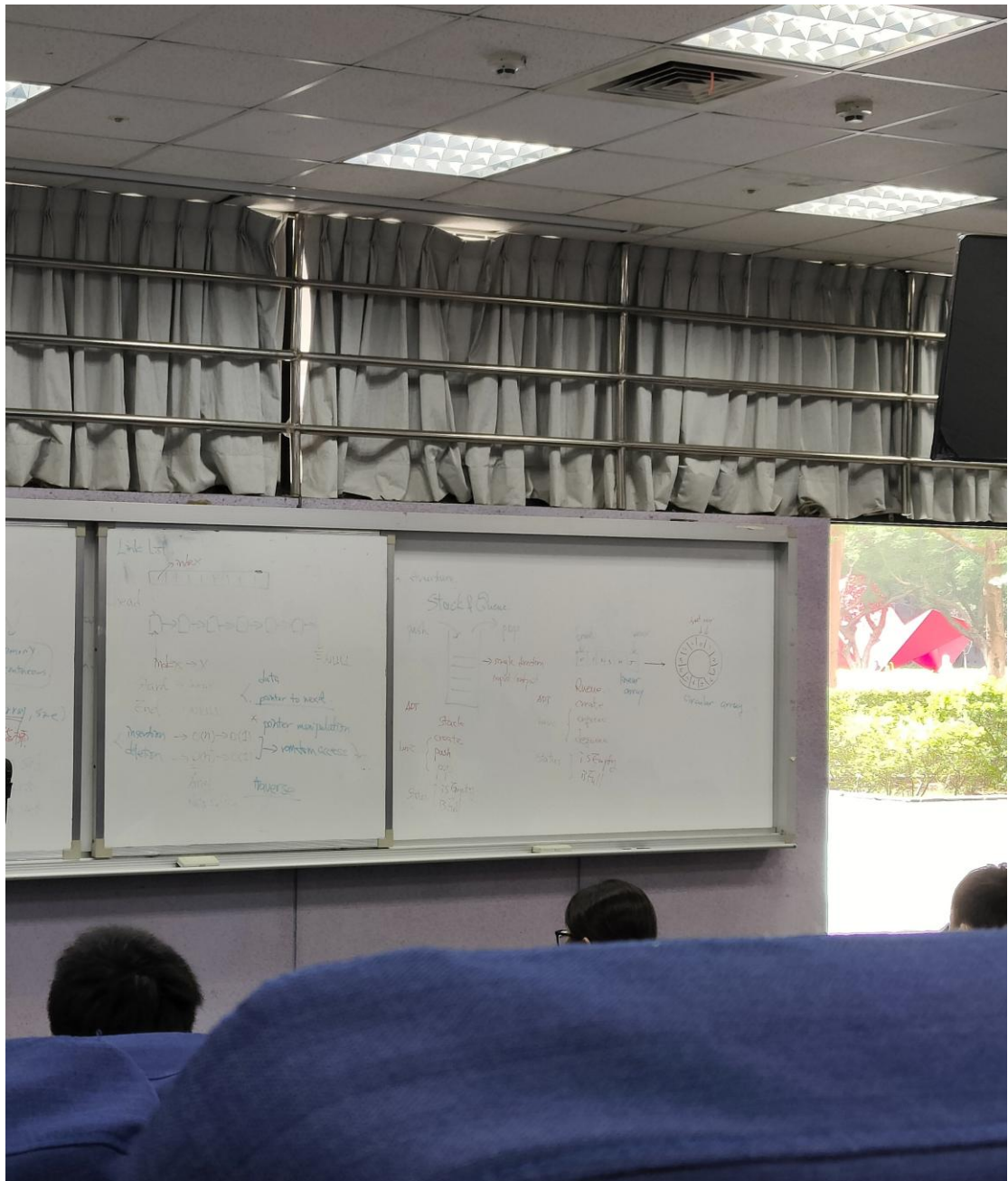
malloc  $\rightarrow$  malloc (temp) = realloc (array, size)

dynamic  
f.c  $\rightarrow$  int arr[5];  
 $O(1)$  algorithms  
 $O(1) \Rightarrow$  selection sort  
bubble sort  
insertion sort  
 $\hookrightarrow$  data shifting (oh)

Linked list

index  
data  
pointer to next  
Start  $\rightarrow$  head  
End  $\rightarrow$  NULL  
insertion  $\rightarrow O(n) \rightarrow O(1)$   
deletion  $\rightarrow O(n) \rightarrow O(1)$   
draw  
very easy  
traverse

Stack & Queue  
push  
pop  
peek  
isEmpty  
isFull



Array  $\Rightarrow$  线性

0 1 2 3 4 5 6 7 8 9

by index  $\rightarrow$  get value.



random access  $O(1)$

memory  
 $\rightarrow$  continuous

create dynamic  $\rightarrow$  malloc  $\rightarrow$  realloc  $\rightarrow$  realloc(array, size)  
static  $\rightarrow$  not access;  $\rightarrow$  dynamic

insertion  $O(n)$   
deletion  $O(n)$   
search  $O(n)$   
algorithms  
selection sort  
bubble sort  
insertion sort

Link list  
index  
read  
index  $\rightarrow$  y  
Start  $\rightarrow$  head  
End  $\rightarrow$  NULL  
insertion  $\rightarrow$   $O(n)$   
deletion  $\rightarrow$   $O(n)$   
data  
pointer to next  
pointer to next  
traverse