面试知识点解析

数组、链表（**Array、Linked List**）
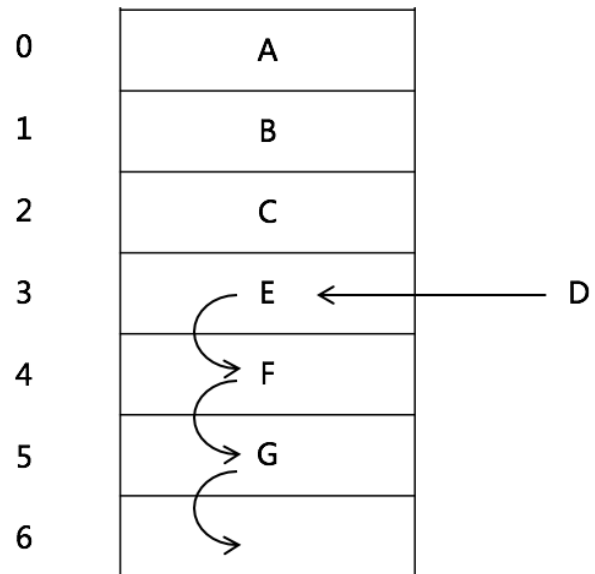
Array

0	00000011
1	00000001
2	00000101
3	00000100
4	00000011
5	00000000
6	00000000
7	00000000
8	00000000

Memory Controller

00000000
00000001
00000011
00000011
00000100
00000100
00000101
00000110
00000110
00000111
00001000
00001010
00001010

Array

Inserting

0	A
1	B
2	C
3	E
4	F
5	G
6	

D

Deleting

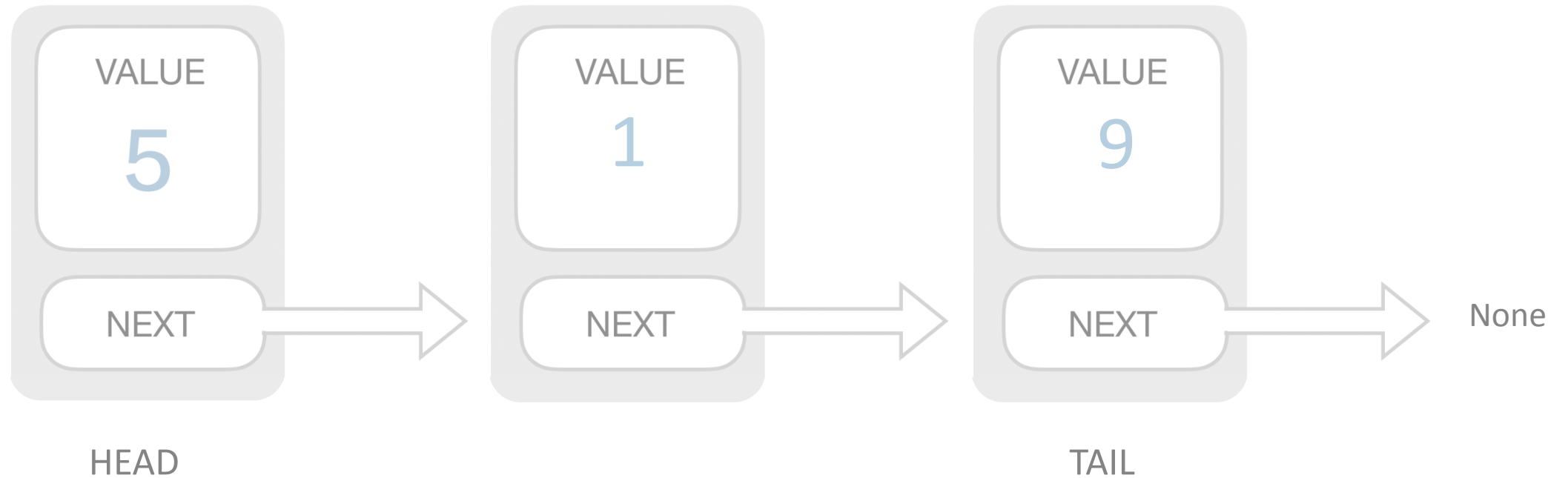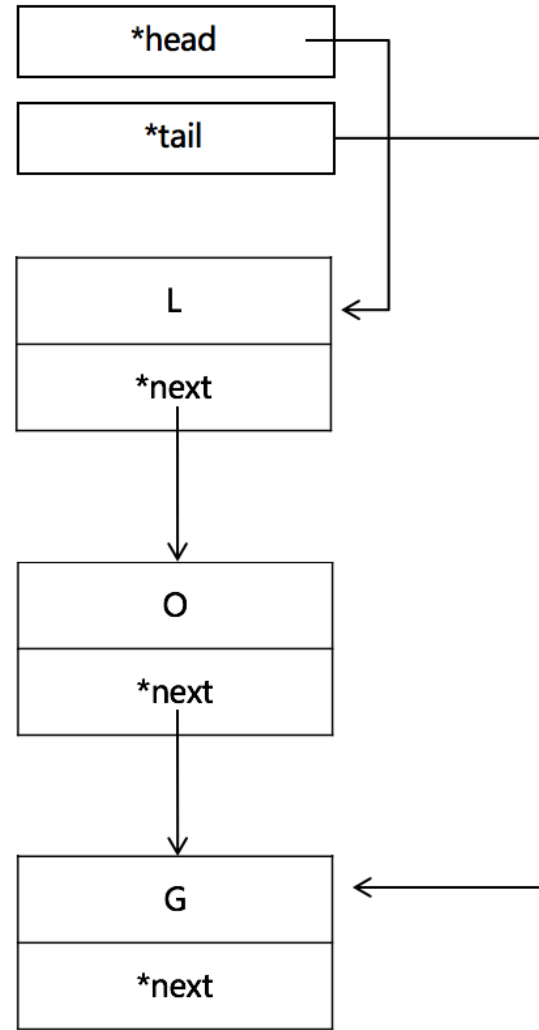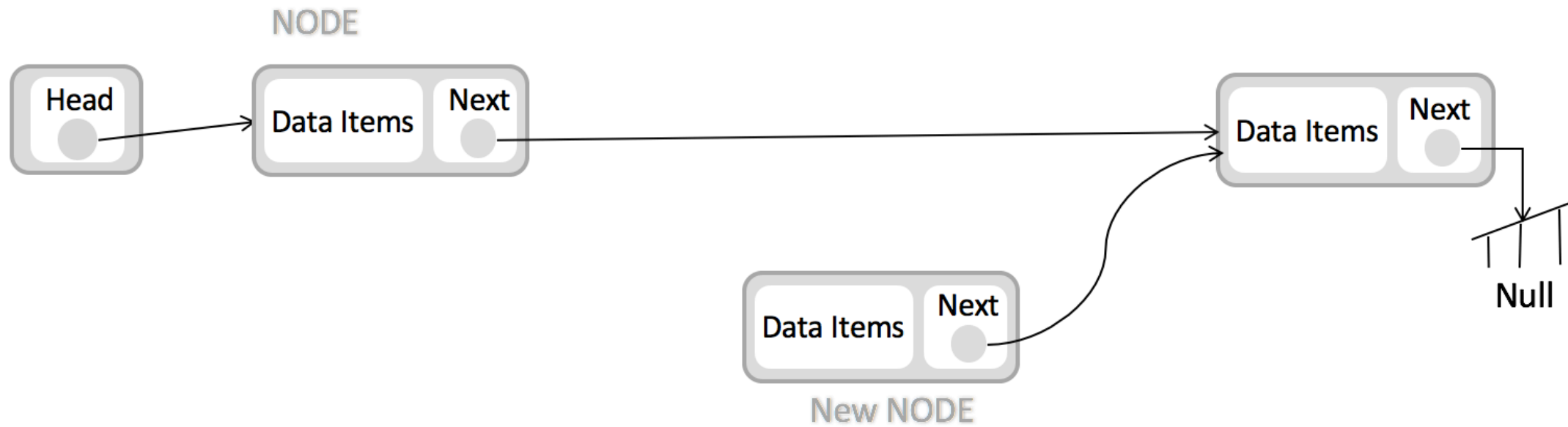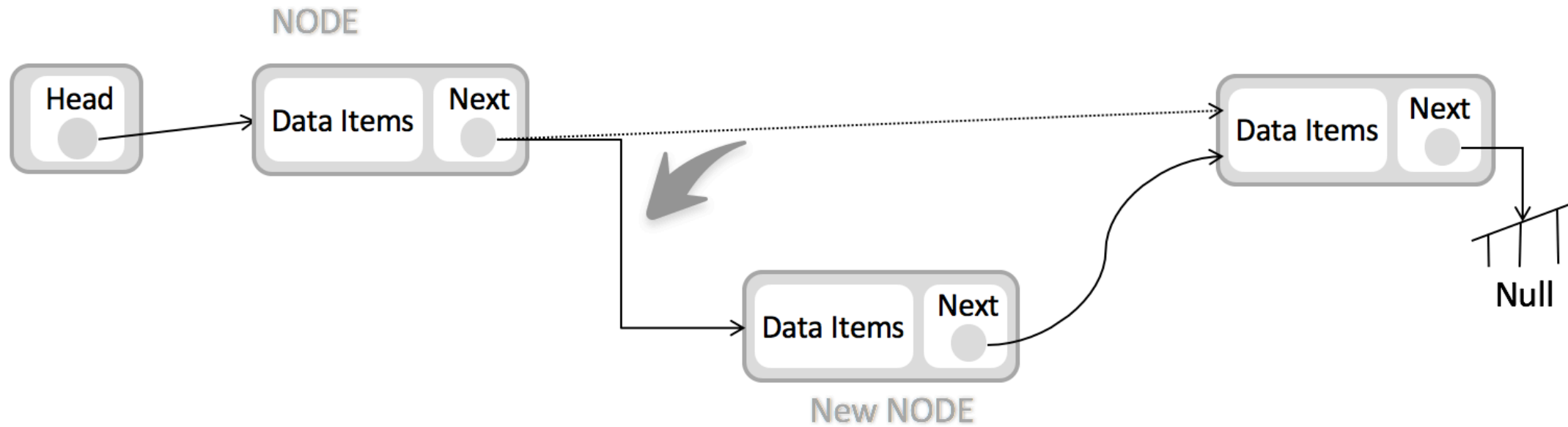|	
0	A
1	B
2	C
3	Z
4	D
5	E
6	F
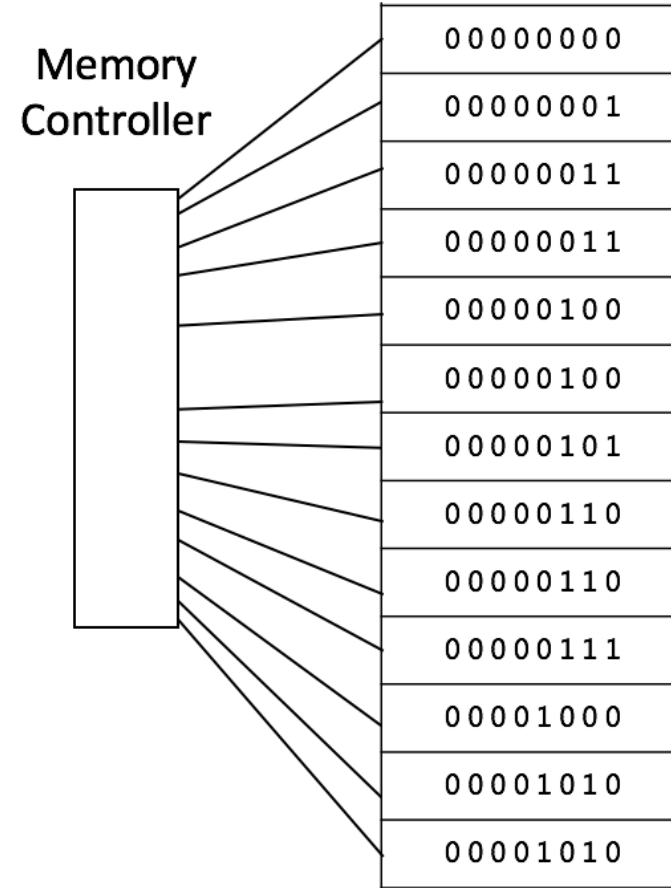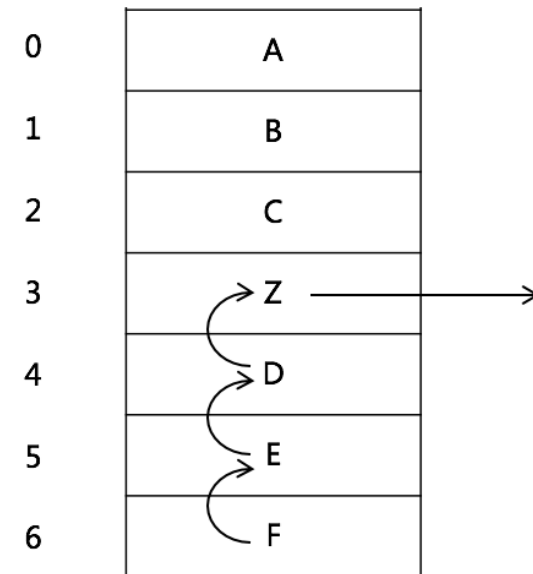
Array

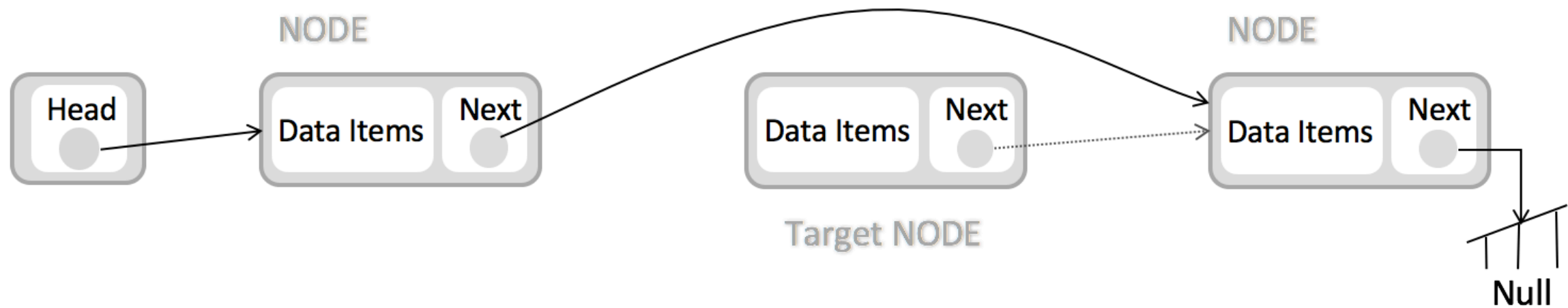- Access: O(1)

- Insert: 平均 O(n)

- Delete: 平均 O(n)

Linked List

*head

*tail

L
*next

O
*next

G
*next

NODE

Head → Data Items | Next → Data Items | Next → Null

Data Items | Next → Data Items | Next

New NODE

LeftNode.next -> NewNode;

NODE

Head → Data Items | Next → Data Items | Next → Null

Data Items | Next

New NODE

NODE

Head Data Items Next

NODE

Target NODE

Data Items Next

NODE

Data Items Next

Null

NODE

Head Data Items Next

Target NODE

Data Items Next

NODE

Data Items Next

Null
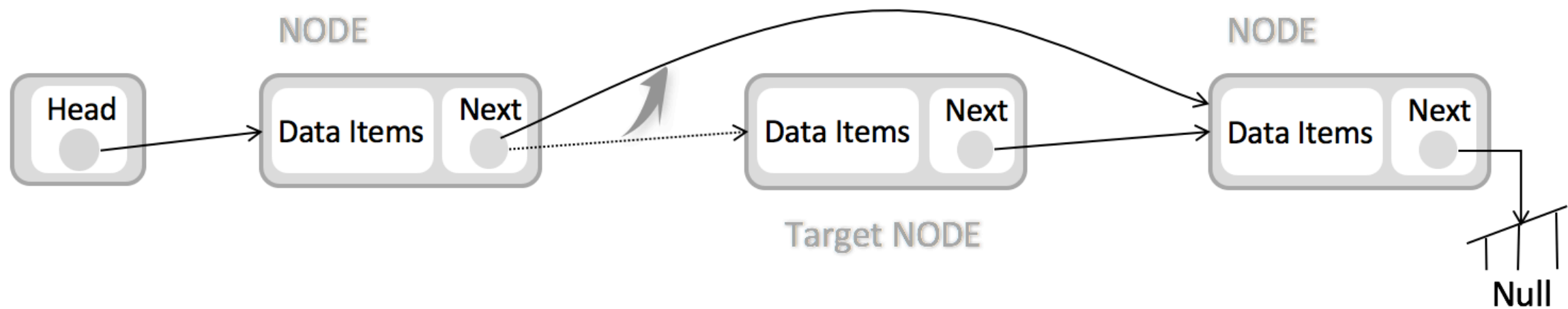
Doubly Linked List
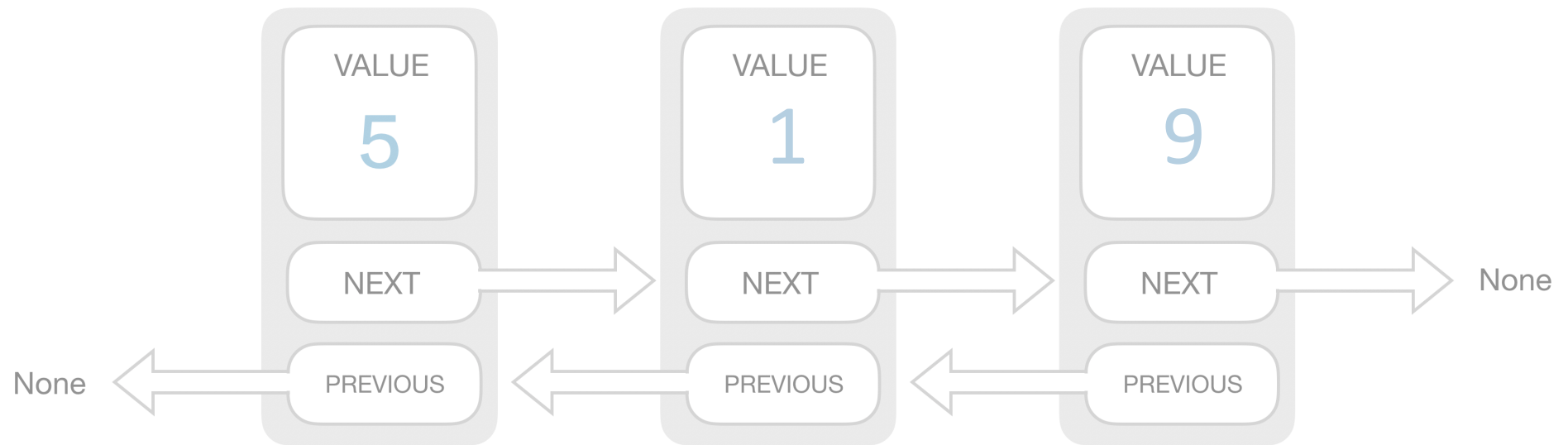
时间复杂度

space	O(n)
prepend	O(1)
append	O(1)
lookup	O(n)
insert	O(1)
delete	O(1)

实战题目

1. https://leetcode.com/problems/reverse-linked-list/

2. https://leetcode.com/problems/swap-nodes-in-pairs

3. https://leetcode.com/problems/linked-list-cycle

4. https://leetcode.com/problems/linked-list-cycle-ii

5. https://leetcode.com/problems/reverse-nodes-in-k-group/