Each node uses only one pointer field to traverse the list back and forth.

The pointer field contains difference between the pointer to the next node and the pointer to the previous node. The pointer difference is calculated by using **exclusive-or (**⊕) operation.

Typedef struct ListNode{

int data;

struct ListNode \* ptrdiff;

ptrdiff = pointer to previous node ⊕ pointer to next node

The ptrdiff of the start node (head node) is the \_ of NULL and next node (next node to head). Similarly, the ptrdiff of end node is the \_ of previous node (previous to end node) and NULL. As an example, consider the following linked list.