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## XOR Linked List

```
struct node {
```

```
    int val;
```

```
    Node * npx;
```

```
    Node (int val) : val(val), npx(NULL) {}  
};
```

```
→ Node * insertEnd (Node * head, int val) {  
    if (!head)  
        return new Node(val);  
    Node * prev = NULL, * curr = head,  
        * next = XOR(prev, curr->npx);  
    while (next) {  
        prev = curr;  
        curr = next;  
        next = XOR(prev, curr->npx);  
    }  
    Node * node = new Node(val);  
    curr->npx = XOR(curr->npx, nextnode);  
    return head;  
}
```

```
→ Node * insertBeg (Node * head, int val) {  
    if (!head) return new Node(val);  
    Node * node = new Node(val);  
    head->npx = XOR(head->npx, node);  
    Node->npx = XOR(NULL, head);  
    return node;  
}
```