

XOR Linked List

// XOR operation

```

struct node * XOR (struct node * a , struct node * b)
{
    return ( struct node * ((uintptr_t(a)) ^ (uintptr_t(b))));
}

```

// Void insert_end(int data, NODE head)

{

```

struct node * newnode = new (struct node);
newnode->data = data;
newnode->link = NULL;
if (head == NULL)
{
    head = newnode;
}

```

NODE newnode = getnode()

new node->data = data ;

if (head == NULL)

{ head = newnode;

}

else {

NODE current = head;

NODE prev = NULL;

NODE x;

while (current->link != prev)

{ x = current;

current = XOR (current->link, prev);

prev = x;

}

current->link = XOR (current->link, newnode);

newnode->link = current; }

Void insert-beginning (int data, NODE head) {

{
 NODE newnode = getNode();

 newnode->data = data;

 newnode->link = NULL;

 if (head == NULL)

 { head = newnode;

 }

 else

 { newnode->link = head;

 head->link = XOR(head->link, newnode);

 head = newnode;

 }

}