

XOR Linked List

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IBM18CS081

```
typedef struct Node
{
    int data;
    struct Node* npt;
} node;

node *head;

node xor ( node *a, node *b)
{
    return (node) ( (a) ^ (b) )
}

void insert_begin ( int data)
{
    node *temp = (node *) malloc (size of (node));
    temp->data = data;
    temp->npt = head;

    if (head != NULL)
    {
        head->npt = xor (temp, head->npt);
    }

    head = temp;
}
```

```
void insert-last (int data)
```

```
{
```

```
node *temp = (node *) malloc (sizeof (node));
```

```
temp->data = data;
```

```
node *curr = head, *prev = NULL, *next;
```

```
while (curr != NULL)
```

```
{
```

```
next = xoi (prev, curr->npti);
```

```
prev = curr;
```

```
curr = next;
```

```
}
```

```
temp->npti = prev;
```

```
prev->npti = xoi (prev->npti, temp);
```

```
}
```