

program 1) program to Implement the following list:-

An ordinary doubly linked requires space, use memory-efficient (XOR) linked list, with the following functions:-

- (i) Insert at beginning
- (ii) Insert a new node at end of list

(i) New node to be inserted at beginning of list

```
Node new = getnode();
new->next = XOR(NULL, first);
first = new;
return first;
```

(ii) Insert a new node at end of list

```
Node new = getnode();
int *curr;
while (curr != NULL)
{
    curr->next = curr->next XOR null
    XOR new;

    curr = new;
    new->next = curr XOR null;
    curr = new;
}
return curr;
```