ABHAYA.V

IBM18CS001

ADS Lab - I

Batch - I

→ XOR Linked List

· Program :

```
struct node
{
    int data;
    struct node * link;
};
typedef struct node *    NODE;
~~xyscb~~

NODE  XOR (NODE a, NODE b)
{
    return   (NODE) ((uintptr_t(a) ^ (uintptr_t) (b) );
}

void  insert_end (int data, NODE head)
{
    NODE    newnode = ~~new~~ (NODE) malloc (sizeof (struct node));

    newnode ->data = data;
    newnode -> link = NULL;

    if (head = =NULL)
        head = newnode;

    else
    {  NODE  curr =  head;
        NODE  prev = NULL ;
        NODE  K;
```

```
while ( curr -> link != prev)
{
        x = curr;
        curr = XOR (curr -> link, prev);
        prev = x;
}
    curr -> link = X OR (curr -> link, new node);
    newnode -> link = curr;

    }

}

void insert_beg (int data, NODE head)
{
        NODE newnode = (NODE) malloc( size of (struct node) );

        newnode -> data = data;
        newnode -> link = NULL;
        if (head == NULL)
        {
                head = newnode;
        }
        else
        {
                new node -> link = head;
                head -> link = XOR (head -> link, newnode);
                head = newnode;
        }
}
```