Program 1 : Memory Efficient Doubly Linked list

Insert function (Beginning)

```
void insert ( Node ** h, int d)
{
    Node *new = new Node();
    new → d = d;
    new → npx = *h;
    if (*h ! = NULL)
        *h → npx = xor (new, *h→npx);
    *h = new;
}
```

Insert at the End

```
{       Node *new
void insert_end (Node **h, int d)
{
    Node *new = new Node();
    new → d = d;
    Node *tmp, *prev;
    while (tmp != NULL)
    {   prev = tmp;
        tmp = tmp → next;
    }

    tmp → npx = xor (prev, new);
    new → npx = xor (tmp, NULL);
}
```