#include <bits/stdc++.h>

using namespace std;

struct Node {

    int data;

    struct Node\* next;

};

void reverseUtil(Node\* curr, Node\* prev, Node\*\* head);

void reverse(Node\*\* head)

{

    if (!head)

        return;

    reverseUtil(\*head, NULL, head);

}

void reverseUtil(Node\* curr, Node\* prev, Node\*\* head)

{

    if (!curr->next) {

        \*head = curr;

        curr->next = prev;

        return;

    }

    Node\* next = curr->next;

    curr->next = prev;

    reverseUtil(next, curr, head);

}

Node\* newNode(int key)

{

    Node\* temp = new Node;

    temp->data = key;

    temp->next = NULL;

    return temp;

}

void printlist(Node\* head)

{

    while (head != NULL) {

        cout << head->data << " ";

        head = head->next;

    }

    cout << endl;

}

int main()

{

    Node\* head1 = newNode(1);

    head1->next = newNode(2);

    head1->next->next = newNode(3);

    head1->next->next->next = newNode(4);

    head1->next->next->next->next = newNode(5);

    head1->next->next->next->next->next = newNode(6);

    cout << "Given linked list\n";

    printlist(head1);

    reverse(&head1);

    cout << "\nReversed linked list\n";

    printlist(head1);

    return 0;

}