#include <iostream>

#include <conio.h>

using namespace std;

struct Node

{

int data;

Node \*next;

};

struct Node \*head,\*tail;

void InsertNodeAtTheFirst(int x)

{

Node \*temp = new Node;

temp->data = x;

temp->next = head;

head = temp;

}

void Delete\_FirstNode()

{

Node \*temp;

temp = head;

head = head->next;

free(temp);

}

void Delete\_EndNode()

{

Node \*current = head; // current point the last node

Node \*previous = head; // previous points the second last node

while(current->next != NULL)

{

previous = current;

current = current->next; // current start with head and end to last node..

}

tail = previous; // second last add stored in tail

previous->next = NULL; // last node is null

delete(current); // delete last node

}

void Delete\_NthNode(int pos)

{

Node \*current = head;

Node \*previous = head;

if(pos == 1)

{

Node \*temp;

temp = head;

head = head->next;

free(temp);

}

for(int a = 1; a < pos; a++)

{

previous = current;

current = current->next;

}

previous->next = current->next;

}

void PrintNode()

{

struct Node \*temp = head;

cout << "list : ";

while(temp != NULL)

{

cout << " " << temp->data;

temp = temp->next;

}

cout << endl;

}

void main()

{

head = NULL;

tail = NULL;

int n,x,del,pos;

cout << "how many node you want to create ";

cin >> n;

for(int i = 0; i < n; i++)

{

cout << "Enter the node part ";

cin >> x;

InsertNodeAtTheFirst(x);

PrintNode();

}

while(1)

{

cout << "Enter 1 for delete first node \nEnter 2 for delete second node \nEnter 3 for delete nth node \nEnter 4 for exit the program ";

cin >> del;

if(del == 1)

{

Delete\_FirstNode();

PrintNode();

}

else if(del == 2)

{

Delete\_EndNode();

PrintNode();

}

else if(del == 3)

{

cout << "Enter the positon of the node you want to delete ";

cin >> pos;

Delete\_NthNode(pos);

PrintNode();

}

else if(del == 4)

{

exit(0);

}

}

getch();

}