## // Header Files

#include <iostream>

#include <conio.h>

using namespace std;

## // Class for LinkedList

class List {

private:

## // Structure

typedef struct node {

int data;

node \*next;

} \*nodePtr;

nodePtr head;

nodePtr curr;

nodePtr temp;

public:

## // Constructor

List() {

head = NULL;

curr = NULL;

temp = NULL;

}

## // Function for Adding Node

void AddNode(int addData) {

nodePtr n = new node;

n->data = addData;

n->next = NULL;

if (head != NULL) {

curr = head;

while (curr->next != NULL) {

curr = curr->next;

}

curr->next = n;

}

else {

head = n;

}

}

## // Function for Deleting Node

void DeleteNode(int delData) {

nodePtr delPtr = NULL;

temp = head;

curr = head;

while (curr != NULL && curr->data!=delData) {

temp = curr;

curr = curr->next;

}

if (curr == NULL) {

cout << delData << " is not in the List.\n";

delete delPtr;

}

else {

delPtr = curr;

curr = curr->next;

temp->next = curr;

if (delPtr == head) {

head = head->next;

temp = NULL;

}

delete delPtr;

cout << " The value " << delData << " is deleted.\n";

}

}

## // Function for Printing List

void PrintList() {

curr = head;

while (curr != NULL) {

cout << curr->data<<endl;

curr = curr->next;

}

}

};

## // Main Function

int main() {

List Usama;

mmenu:

cout << "\n=======================================\n";

cout << "\t\tMENU";

cout << "\n=======================================\n";

cout<<"1. INSERT\n2. DELETE\n3. EXIT\n";

char choice;

cout << "Choice: ";

cin >> choice;

if (choice == '1') {

cout << "=======================================\n";

int num1;

start:

cout << "Enter a value to insert: ";

cin >> num1;

Usama.AddNode(num1);

cout << "\n"<<num1<<" is Added!\n\nUpdated List: \n";

Usama.PrintList();

cout << "\n=======================================\n";

cout << "1. Insert More Values\n2. Main Menu\n";

cout<<"Choice: ";

cin >> choice;

cout << "\n=======================================\n";

if (choice == '1')

goto start;

else if (choice == '2')

goto mmenu;

}

else if (choice=='2') {

cout << "\nList Values\n";

Usama.PrintList();

int num1;

cout << "\nEnter a value to delete: ";

cin >> num1;

Usama.DeleteNode(num1);

cout << "\nUpdated List: \n";

Usama.PrintList();

goto mmenu;

}

else if (choice == '3') {

cout << "\n=======================================\n";

cout << " Thanks for Using our Software :)";

cout << "\n=======================================\n";

}

else {

cout << "\nInvalid!\n";

goto mmenu;

}

\_getch();

}



