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// Attached: HW\_4

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// Program: HW\_4.ccp

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// Class: CS 1B

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#include<iostream>

#include<iomanip>

using namespace std;

struct Student {int id; char name[30]; char address[30]; char city[30]; char state[30]; char zip[30]; char gpa[30]; Student\* next;};

void insertStudent(Student\*&head);

void showList(Student\*&head);

int main()

{

Student \*head;

char answer;

do{

head = NULL;

cout << "Enter a student record (-1 to quit):\n\n";

insertStudent(head);

cout << "Display all records Y/N? ";

cin >> answer;

if(toupper(answer) == 'Y')

{

showList(head);

cout << "Do again Y/N? ";

cin >> answer;

}

}while(toupper(answer) == 'Y');

return 0;

}

void insertStudent(Student \*&head)

{

Student \*temp = new Student;

cout.width(12); cout << right << "ID: ";

cin >> temp->id;

if(temp->id != -1)

{

cin.ignore();

cout.width(12); cout << right << "Name: ";

cin.getline(temp->name,30);

cout.width(12); cout << right << "Address: ";

cin.getline(temp->address,30);

cout.width(12); cout << right << "City: ";

cin.getline(temp->city,30);

cout.width(12); cout << right << "State: ";

cin.getline(temp->state,30);

cout.width(12); cout << right << "Zip: ";

cin.getline(temp->zip,30);

cout.width(12); cout << right << "GPA: ";

cin.getline(temp->gpa,30);

cout << endl;

temp->next = head;

head = temp;

insertStudent(head);

}

}

void showList(Student \*&head)

{

Student \*temp = head;

while(temp != NULL)

{

cout.width(12); cout << right << "ID#: ";

cout.width(30); cout << right << temp->id << endl;

cout.width(12); cout << right << "Name: ";

cout.width(30); cout << right << temp->name << endl;

cout.width(12); cout << right << "Address: ";

cout.width(30); cout << right << temp->address << endl;

cout.width(12); cout << right << "City: ";

cout.width(30); cout << right << temp->city << endl;

cout.width(12); cout << right << "State: ";

cout.width(30); cout << right << temp->state << endl;

cout.width(12); cout << right << "Zip: ";

cout.width(30); cout << right << temp->zip << endl;

cout.width(12); cout << right << "GPA: ";

cout.width(30); cout << right << temp->gpa << endl;

cout << endl;

temp = temp->next;

}

}

// ======= OUTPUT =========

/\*

Enter a student record (-1 to quit):

ID: 100

Name: Milo Fisher

Address: 123 Sesame Street

City: San Juan

State: CA

Zip: 92333

GPA: 5.00

ID: 101

Name: John Cena

Address: 321 Applebaum

City: Albany

State: New York

Zip: 92929

GPA: 2.75

ID: -1

Display all records Y/N? Y

ID#: 101

Name: John Cena

Address: 321 Applebaum

City: Albany

State: New York

Zip: 92929

GPA: 2.75

ID#: 100

Name: Milo Fisher

Address: 123 Sesame Street

City: San Juan

State: CA

Zip: 92333

GPA: 5.00

Do again Y/N? N

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