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// inheritance2.h
#include <string>
using namespace std;

enum Discipline { ARCHEOLOGY, BIOLOGY, COMPUTER_SCIENCE };
enum Classification { FRESHMAN, SOPHOMORE, JUNIOR, SENIOR };

// base class
class Person {
protected:
    string name;    // protected member: derived classes can access
public:
    Person() { setName(""); }
    Person(string pName) { setName(pName); }
    void setName(string pName) { name = pName; }
    string getName() const { return name; }
};

// Student "is-a" Person
class Student: public Person {
private:
    Discipline major;
    Person *advisor;
public:
    // Constructor
    Student(string sname, Discipline d, Person *adv);

    void setMajor(Discipline d) { major = d; }
    Discipline getMajor() const { return major; }
    void setAdvisor(Person *p) { advisor = p; }
    Person *getAdvisor() const { return advisor; }
};

// Faculty "is-a" Person
class Faculty: public Person {
private:
    Discipline department;
public:
    // Constructor with initialization list
    Faculty(string fname, Discipline d) : Person(fname) {
        department = d;
    }

    void setDepartment(Discipline d) { department = d; }
    Discipline getDepartment() const { return department; }
};

```

```

// inheritance2.cpp
#include "inheritance2.h"

//*****
// Constructor for the Student class.      *
//*****
Student::Student(string sname, Discipline d, Person *adv)
    : Person(sname) // Base constructor initialization {
    major = d;
    advisor = adv;
}

// This program demonstrates the use of the constructor
// initialization list to call a base constructor.

#include "inheritance2.h"
#include <iostream>
using namespace std;

// These arrays of string are used to print values
// of enumerated types.
const string dName[] = { "Archeology", "Biology", "Computer Science" };

const string cName[] = { "Freshman", "Sophomore", "Junior", "Senior" };

int main() {
    // Create Faculty and Student objects
    Faculty prof("Indiana Jones", ARCHEOLOGY);
    Student st("Sean Bolster", ARCHEOLOGY, &prof);
    cout << "\nProfessor " << prof.getName() << " teaches "
         << dName[prof.getDepartment()] << "." << endl;

    // Get the student's advisor
    Person *pAdvisor = st.getAdvisor();
    cout << st.getName() << "'s advisor is "
         << pAdvisor->getName() << "." << endl << endl;

    return 0;
}

```

OUTPUT:

Professor Indiana Jones teaches Archeology.
Sean Bolster's advisor is Indiana Jones.