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#include <iostream>
#include <string>
using namespace std;
class person {
private:
    string firstname, lastname, address, telephone;
public:
    person(){}
    void setfirstname(string first) {
        firstname = first;
    }
    void setlastname(string last) {
        lastname = last;
    }
    string fullname() {
        return firstname + lastname;
    }
    void setaddress(string a) {
        address = a;
    }
    string getaddress() {
        return address;
    }
    void settelephone(string t) {
        telephone = t;
    }
    string gettelephone() {
        return telephone;
    }

    virtual void display() = 0;
};
class student :public person {
private:
    int level;
    string id, department;
public:
    student(){}

    void setid(string i) {
        id = i;
    }
    string getid() {
        return id;
    }
    void setlevel(int l) {
        level = l;
    }
    int getlevel() {
        return level;
    }
    void setdepartment(string d) {
        department = d;
    }
    string getdepartment() {
        return department;
    }
}
```

```

void display() {
    cout << "student full name: " << fullname() << endl;
    cout << "id: " << getid() << endl;
    cout << "address: " << getaddress() << endl;
    cout << "number: " << gettelephone() << endl;
    cout << "level: " << getlevel() << endl;
    cout << "department: " << getdepartment() << endl;
}
};

class professor :public person {
private:
    int salary;
public:
    professor() {

    }
    void setsalary(int s) {
        salary = s;
    }
    int getsalary() {
        return salary;
    }
    void display() {
        cout << "professor full name: " << fullname() << endl;
        cout << "address: " << getaddress() << endl;
        cout << "number: " << gettelephone() << endl;
        cout << "salary: " << getsalary() << endl;
    }
};

int main() {
    student obj;
    professor obj1;
    obj.setfirstname("moataz ibrahim");
    obj.setlastname(" gaber ali");
    obj.setaddress("giza");
    obj.settelephone("01104712xxx");
    obj.setid("202124938");
    obj.setlevel(3);
    obj.setdepartment("cs");
    obj.display();
    cout << endl;
    obj1.setfirstname("ahmed ");
    obj1.setlastname("emad");
    obj1.setaddress("cairo");
    obj1.settelephone("01204589xxx");
    obj1.setsalary(10000);
    obj1.display();
    return 0;
}

```

