

SE 201 Object Oriented Programming

Lab Manual Spring 2022

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Remarks : _____

Signature : _____

Lab #10

Multiple Inheritance

Objective

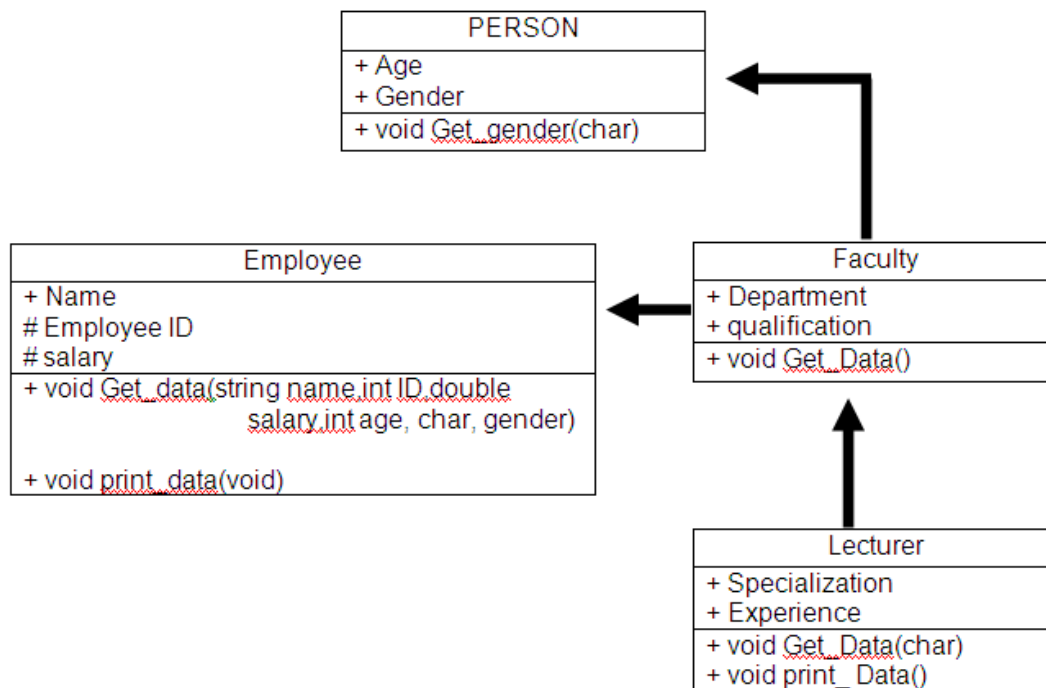
To understand that how class is derived from multiple classes

Multiple Inheritance

Multiple inheritance enables a derived class to inherit members from more than one parent.

Exercise:

Code the following diagram. Create object of Lecturer and demonstrate the function calls.



Code input:

```
#include<iostream>
#include<string>
// MOIN RAUF SE-21039
using namespace std ;
class person{
public:
    int age;
    string gender;
    void getgender();
    void showgender();
};
class faculty: public person{
public:

    string department;
    string qualification;
    void getdata1();
    void showdata1();

};
class employee: public faculty {
public:
    string name;
    int employeeID;
    double salary ;
    void setdata(string N, int id,double S,int A);
    void printdata();
};
class lecturer: public faculty {
public:
    string specialization;
    int experience;
    void getdata();
    void showdata();
};
void person:: getgender(){
    cout<<"please enter your gender"<<"\t"<<endl;
    cin>>gender;
};
void person:: showgender(){
    cout<<"Gender is "<<"\t"<<gender<<endl;
    //cin>>gender;
};

void faculty :: getdata1(){
    cout<<"please enter your current department"<<"\t"<<endl;
    cin>>department;
    cout<<"please enter your qualification"<<"\t"<<endl;
    cin>>qualification;
};
void faculty :: showdata1(){
    cout<<"current department is "<<"\t"<<department<<endl;
```

```

        //cout<<department<<"\t"<<endl;
        cout<<"Qualification is "<<"\t"<<qualification<<endl;
        //cout<<qualification<<"\t"<<endl;
    };

void employee::setdata(string N, int id,double S,int A){
    name=N;
    employeeID=id;
    salary=S;
    age=A;
};

void employee::printdata(){
    cout<<"Name of employee is"<<" " <<name<<"\t"<<endl;
    //cout<<name;
    cout<<"employeeID"<<" " <<employeeID<<"\t"<<endl;
    //cout<<employeeID;
    cout<<"salary of employee is "<<" " <<salary<<"\t"<<endl;
    //cout<<salary;
    cout<<"age of person is "<<" " <<age<<"\t"<<endl;
    //cout<<age;
};

void lecturer::getdata(){
    cout<<"Enter you specialization in any field "<<endl;
    cin>>specialization;
    cout<<"Enter your specialization field experience "<<endl;
    cin>>experience;
};

void lecturer:: showdata(){
    cout<<"specialization field is"<<"\t"<<specialization<<endl;
    //cout<<specialization;
    cout<<"gained exception is"<<"\t"<<experience<<endl;
    //cout<<experience;
};

int main(){
    faculty f;
    f.getdata1();
    f.showdata1();

    lecturer l;
    l.getdata();
    l.showdata();

    person p ;
    p.getgender();
    p.showgender();

    employee e;
    e.setdata("moin",39,666,18);
    e.printdata();

    return 0;
};

```

CODE OUTPUT:

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL JUPYTER

```
Enter you specialization in any field
software
Enter your specialization field experience
4
specialization field is software
gained exception is      4
please enter your gender
male
Gender is      male
Name of employee is  moin
employeeID 39
salary of employee is  666
age of person is    18
PS E:\C++ COURSE> 
```