**Cycle 3 Program 6**

**Aim:** To write a program to create a class employee and to derive the class manager and supervisor from it.

#include<iostream>

using namespace std;

class Employee{

    protected:

        char name[20];

        int emp\_no;

        float pay\_rate=0,balance=0;

    public:

        void setData(){

            cout<<"Enter name of employee: ";

            cin.get(name,20);

            cout<<"Enter employee no.: ";

            cin>>emp\_no;

            cout<<"Enter employee salary: ";

            cin>>pay\_rate;

        }

        void pay(){

            balance+=pay\_rate;

        }

        void display(){

            cout<<endl<<"Name: "<<name<<endl;

            cout<<"Employee no.: "<<emp\_no<<endl;

            cout<<"Salary: "<<pay\_rate<<endl;

            cout<<"Amount Paid: "<<balance<<endl;

        }

};

class Manager:public Employee{

    bool issalaried=false;

    float no\_of\_hrs=0;

    public:

        void setManagerData(){

            int choice;

            setData();

            cout<<"Pay on hourly or salary basis(0 for hourly,1 for salary basis): ";

            cin>>choice;

            cin.ignore();

            switch (choice)

            {

                case 0:

                    issalaried=false;

                    break;

                case 1:

                    issalaried=true;

                    break;

                default:

                    cout<<"Some error occured try again";

                    break;

             }

        }

        void pay(){

            if(issalaried){

                balance+=pay\_rate;

            }else{

                cout<<"Enter number of hours worked: ";

                cin>>no\_of\_hrs;

                balance=no\_of\_hrs\*pay\_rate;

            }

        }

};

class Supervisor:public Employee{

    char department[20];

    public:

    void setSupervisorData(){

        setData();

        cin.ignore();

        cout<<"Enter Department: ";

        cin.get(department,20);

    }

    void pay(){

        balance+=pay\_rate;

    }

    void display(){

        Employee::display();

        cout<<"Department: "<<department<<endl;

    }

};

int main(){

    Supervisor s;

    Manager m;

    int choice;

    cout<<"Select Employee Category: "<<endl<<"1.Manager"<<endl<<"2.Supervisor"<<endl<<"3.Exit"<<endl<<"Enter choice: ";

    cin>>choice;

    cin.ignore();

    switch(choice){

        case 1:

            m.setManagerData();

            m.pay();

            m.display();

            break;

        case 2:

            s.setSupervisorData();

            s.pay();

            s.display();

            break;

        case 3:

            break;

        default:

            cout<<"Some error occured";

    }

    return 0;

}

**Sample Input/Output:**

1.

Select Employee Category:

1.Manager

2.Supervisor

3.Exit

Enter choice: 1

Enter name of employee: Manager\_1

Enter employee no.: 345

Enter employee salary: 5000

Pay on hourly or salary basis(0 for hourly,1 for salary basis): 0

Enter number of hours worked: 8

Name: Manager\_1

Employee no.: 345

Salary: 5000

Amount Paid: 40000

2.

Select Employee Category:

1.Manager

2.Supervisor

3.Exit

Enter choice: 2

Enter name of employee: Supervisor

Enter employee no.: 456

Enter employee salary: 5000

Enter Department: Tech

Name: Supervisor

Employee no.: 456

Salary: 5000

Amount Paid: 5000

Department: Tech

The rectangular coordinate is (29.867, 2.82182)

3.

Select Employee Category:

1.Manager

2.Supervisor

3.Exit

Enter choice: 1

Enter name of employee: Manager\_2

Enter employee no.: 345

Enter employee salary: 6000

Pay on hourly or salary basis(0 for hourly,1 for salary basis): 1

Name: Manager\_2

Employee no.: 345

Salary: 6000

Amount Paid: 6000