

## 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 occurred 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 occurred";

}
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
```

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```
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
```