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Subject: Object Oriented Programming Lab

Practical-4

- **Problem Definition:**

  Create a class named 'Member' having the following members.

  Data members:

  1. Name
  2. Age
  3. Phone number
  4. Address
  5. Salary

  It also has a method named print in which prints the salary of members.

  Two classes 'Employee' and 'Manager' inherit the member class the 'Employee' and 'Manager' classes having data members 'specialization' and 'department' respectively. Now design name, age, phone number, address and salary to an employee and a manager by making an object of both these classes and print the same using the override method 'printInfo'.

- **Program:**

```
class Member{
    String Name;
    int Age;
    String PhoneNo;
    String Address;
    Double Salary;

    //overriden method
    void printInfo() {
    }
}

class Employees extends Member {
```

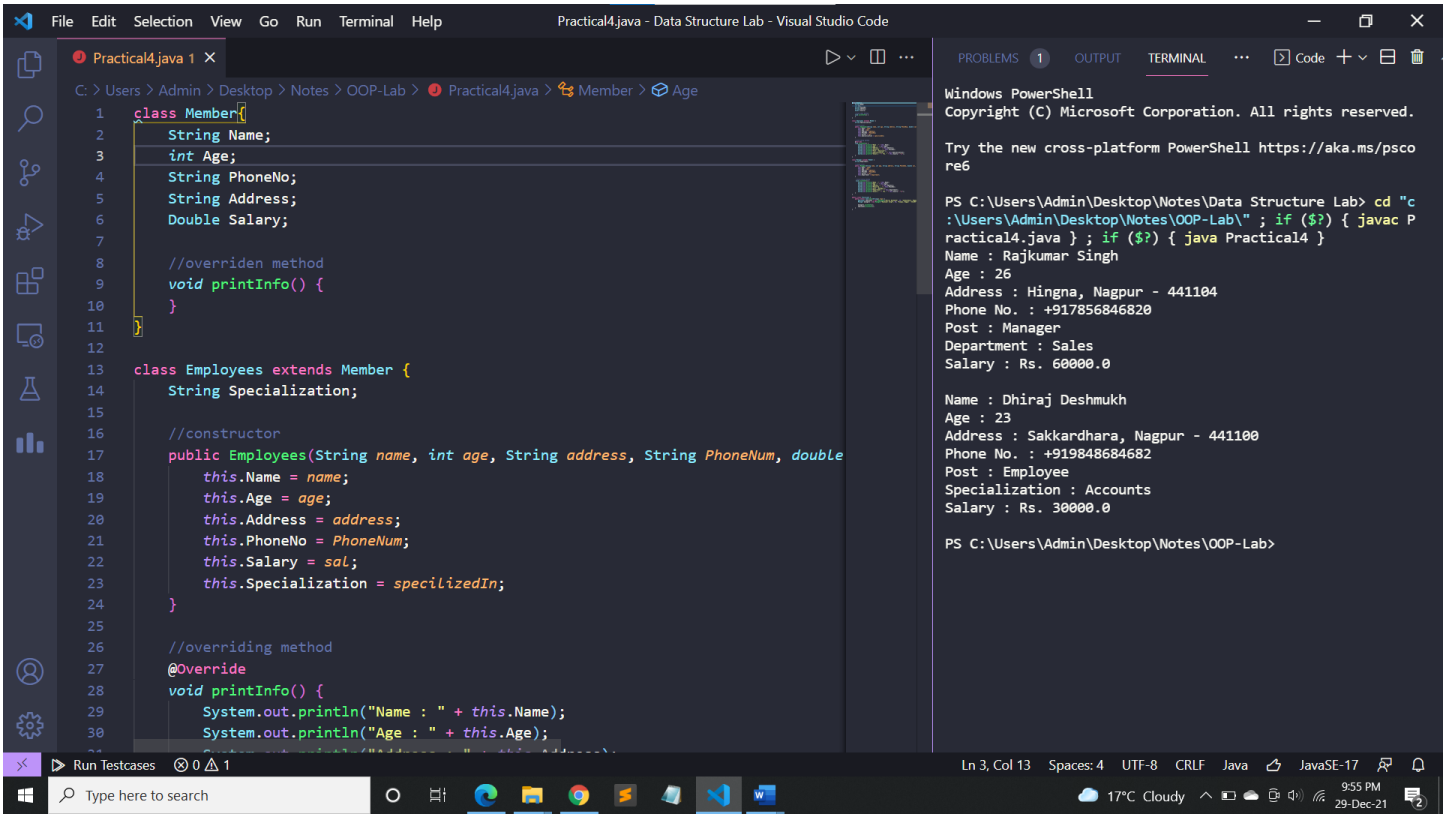
```
    String Specialization;

    //constructor
    public Employees(String name, int age, String address, String PhoneNum, double sal, String
specilizedIn) {
        this.Name = name;
        this.Age = age;
        this.Address = address;
        this.PhoneNo = PhoneNum;
        this.Salary = sal;
        this.Specialization = specilizedIn;
    }

    //overriding method
    @Override
    void printInfo() {
        System.out.println("Name : " + this.Name);
        System.out.println("Age : " + this.Age);
        System.out.println("Address : " + this.Address);
        System.out.println("Phone No. : " + this.PhoneNo);
        System.out.println("Post : Employee");
        System.out.println("Specialization : " + this.Specialization);
        System.out.println("Salary : " + "Rs. " + this.Salary + "\n");
    }
}

class Manager extends Member {
    String Department;

    //constructor
    public Manager(String name, int age, String address, String PhoneNum, double sal, String
department) {
        this.Name = name;
        this.Age = age;
        this.Address = address;
        this.PhoneNo = PhoneNum;
        this.Salary = sal;
        this.Department = department;
    }

     //overriding method
     @Override
     void printInfo() {
        System.out.println("Name : " + this.Name);
        System.out.println("Age : " + this.Age);
        System.out.println("Address : " + this.Address);
        System.out.println("Phone No. : " + this.PhoneNo);
        System.out.println("Post : Manager");
        System.out.println("Department : " + this.Department);
        System.out.println("Salary : " + "Rs. " + this.Salary + "\n");
```

```
    }
}

public class Practical4 {
    public static void main(String[] args) {
        Employees employee1 = new Employees("Dhiraj Deshmukh", 23, "Sakkardhara, Nagpur -
441100", "+919848684682", 30000, "Accounts");
        Manager manager1 = new Manager("Rajkumar Singh", 26, "Hingna, Nagpur - 441104",
"+917856846820", 60000, "Sales");

        manager1.printInfo();
        employee1.printInfo();
    }
}
```

- **Output:**

```
Name : Rajkumar Singh
Age : 26
Address : Hingna, Nagpur - 441104
Phone No. : +917856846820
Post : Manager
Department : Sales
Salary : Rs. 60000.0

Name : Dhiraj Deshmukh
Age : 23
Address : Sakkardhara, Nagpur - 441100
Phone No. : +919848684682
Post : Employee
Specialization : Accounts
Salary : Rs. 30000.0
```

- **Screenshot:**



- **Result:**

  By studying implementation of concept of run time polymorphism in Java., I have successfully completed Practical-4.