*// A Java program to demonstrate working of*

*// Composite Design Pattern with example*

*// of a company with different*

*//  employee details*

import java.util.ArrayList;

import java.util.List;

*// A common interface for all employee*

**interface Employee**

{

    public void showEmployeeDetails();

}

**class Developer implements Employee**

{

    private String name;

    private long empId;

    private String position;

    public Developer(long empId, String name, String position)

    {

*// Assign the Employee id,*

*// name and the position*

        this.empId = empId;

        this.name = name;

        this.position = position;

    }

    @Override

    public void showEmployeeDetails()

    {

        System.out.println(empId+" " +name+ " " + position );

    }

}

**class Manager implements Employee**

{

    private String name;

    private long empId;

    private String position;

    public Manager(long empId, String name, String position)

    {

        this.empId = empId;

        this.name = name;

        this.position = position;

    }

    @Override

    public void showEmployeeDetails()

    {

        System.out.println(empId+" " +name+ " " + position );

    }

}

*// Class used to get Employee List*

*// and do the opertions like*

*// add or remove Employee*

**class CompanyDirectory implements Employee**

{

    private List<Employee> employeeList = new ArrayList<Employee>();

    @Override

    public void showEmployeeDetails()

    {

        for(Employee emp:employeeList)

        {

            emp.showEmployeeDetails();

        }

    }

    public void addEmployee(Employee emp)

    {

        employeeList.add(emp);

    }

    public void removeEmployee(Employee emp)

    {

        employeeList.remove(emp);

    }

}

*// Driver class*

**public class Company**

{

    public static void main (String[] args)

    {

        Developer dev1 = new Developer(100, "Lokesh Sharma", "Pro Developer");

        Developer dev2 = new Developer(101, "Vinay Sharma", "Developer");

        CompanyDirectory engDirectory = new CompanyDirectory();

        engDirectory.addEmployee(dev1);

        engDirectory.addEmployee(dev2);

        Manager man1 = new Manager(200, "Kushagra Garg", "SEO Manager");

        Manager man2 = new Manager(201, "Vikram Sharma ", "Kushagra's Manager");

        CompanyDirectory accDirectory = new CompanyDirectory();

        accDirectory.addEmployee(man1);

        accDirectory.addEmployee(man2);

        CompanyDirectory directory = new CompanyDirectory();

        directory.addEmployee(engDirectory);

        directory.addEmployee(accDirectory);

        directory.showEmployeeDetails();

    }

}

100 Lokesh Sharma Pro Developer

101 Vinay Sharma Developer

200 Kushagra Garg SEO Manager

201 Vikram Sharma Kushagra's Manager