### Total Marks: 25 Total Duration: 2 hours

## Problem Statement:

The following table lists details of employees in a company:

|  |  |  |
| --- | --- | --- |
| **EmployeeCode** | **EmployeeName** | **Designation** |
| 010052 | Aamir Khan | Account Manager |
| 011143 | Imran Khan | Module Lead |
| 008971 | Rajnikanth | Managing Director |
| A03404 | Triloknath Anna | Consultant |
| 008644 | Irfan Khan | Team Lead |

Write a method with the following signature to populate the above table in an in-memory data structure:

**public static void populateEmployeeDetails(Map<Employee, Set<Payslip>>);**

**This method has been provided to you in Client.java. Please do not change the method signature. You are free to add more data members and methods.**

The following table lists the payroll details of employees listed above:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PayrollId | Month | EmpCode | Basic | HRA | CommAllow | LTA | PerfPay | UpkeepPay |
| 1 | August | 010052 | 25000 | 7500 | 1250 | 1750 | 8500 | 650 |
| 2 | May | 008644 | 15000 | 7500 | 1250 | 1750 | 6500 | 650 |
| 3 | June | 011143 | 10000 | 7500 | 1250 | 1750 | 5000 | 650 |
| 4 | January | 010052 | 25000 | 7500 | 1250 | 1750 | 9500 | 650 |
| 5 | February | 008644 | 15000 | 7500 | 1250 | 1750 | 7000 | 650 |
| 6 | August | 008971 | 50000 | 7500 | 1250 | 1750 | 12500 | 650 |
| 7 | March | A03404 | 5000 | 7500 | 1250 | 1750 | 1500 | 650 |
| 8 | June | 008971 | 50000 | 7500 | 1250 | 1750 | 0 | 650 |
| 9 | May | 008971 | 50000 | 7500 | 1250 | 1750 | 10000 | 650 |
| 10 | May | A03404 | 5000 | 7500 | 1250 | 1750 | 3500 | 650 |

Write a method with the following signature to populate the above table in an in-memory data structure:

**public static void populatePayslipDetails(Map<Employee, Set<Payslip>> );**

**This method has been provided to you in Client.java. Please do not change the method signature. You are free to add more data members and methods.**

**Also, the bean classes Employee and Payslip have been provided to you.** **You are free to add more data members and methods.**

Write a method with the following signature to filter employee records on the basis of month i.e. select all those employee records who have a payslip for the given month.

**public static Map<Employee, Payslip> filterEmployeeRecordsByMonth(Map<Employee, Set<Payslip>> employeeDetails, String month);**

**This method has been provided to you in Client.java. Please do not change the method signature. You are free to add more data members and methods.**

Write a method with the following signature to sort employee records on the basis of their name.

**public static Map<Employee, Set<Payslip>> sortEmployeeRecordsByName(Map<Employee, Set<Payslip>> employeeDetails)** ;

**This method has been provided to you in Client.java. Please do not change the method signature. You are free to add more data members and methods.**