import java.util.Scanner;  
  
public class MainClass {  
  
 private Scanner s;  
 private int numChoose;  
 private SalariedEmployee salaried;  
 private HourlyEmployee hourly;  
  
 public MainClass() {  
 salaried = new SalariedEmployee(1, "Renzo", "Cabarios", 20, "123342234567", "1234", "1234", "1234", 5000);  
 hourly = new HourlyEmployee(1, "Renzo", "Cabarios", 20, "123342234567", "1234", "1234", "1234", 50, 20);  
  
 s = new Scanner(System.*in*);  
  
 System.*out*.println("Choose a number");  
 numChoose = s.nextInt();  
 s.nextLine();  
  
 if(numChoose == 1){  
 //salaried  
  
 System.*out*.println(salaried.toString());  
 System.*out*.println(salaried.weeklySalaryToString());  
 System.*out*.println(salaried.monthlySalaryToString());  
 System.*out*.println(salaried.toStringDeduction(salaried.getMonthlySalary(salaried.getWeeklySalary())));  
  
 }else {  
 System.*out*.println(hourly.toString());  
 System.*out*.println(hourly.weeklySalaryToString());  
 System.*out*.println(hourly.monthlySalaryToString());  
 System.*out*.println(hourly.toStringDeduction(hourly.getMonthlySalary()));  
 }  
  
 }  
  
 public static void main (String[] args){  
 new MainClass();  
 }  
}

public class Employee {  
 private static final double *SSS\_RATE* = 0.02;  
 private static final double *PAGIBIG\_RATE* = 0.01;  
 private static final double *PHILHEALTH\_RATE* = 0.01;  
  
 private int id;  
 private String fName;  
 private String lName;  
 private int age;  
 private String phoneNum;  
 private String sssNum;  
 private String pagibigNum;  
 private String philHealthNum;  
  
  
 public Employee() {  
 }  
  
 public Employee(int id, String fName, String lName, int age, String phoneNum, String sssNum, String pagibigNum, String philHealthNum) {  
 this.id = id;  
 this.fName = fName;  
 this.lName = lName;  
 this.age = age;  
 this.phoneNum = phoneNum;  
 this.sssNum = sssNum;  
 this.pagibigNum = pagibigNum;  
 this.philHealthNum = philHealthNum;  
 }  
  
 public static double getSssRate() {  
 return *SSS\_RATE*;  
 }  
  
 public static double getPagibigRate() {  
 return *PAGIBIG\_RATE*;  
 }  
  
 public static double getPhilhealthRate() {  
 return *PHILHEALTH\_RATE*;  
 }  
  
 public int getId() {  
 return id;  
 }  
  
 public void setId(int id) {  
 this.id = id;  
 }  
  
 public String getfName() {  
 return fName;  
 }  
  
 public void setfName(String fName) {  
 this.fName = fName;  
 }  
  
 public String getlName() {  
 return lName;  
 }  
  
 public void setlName(String lName) {  
 this.lName = lName;  
 }  
  
 public int getAge() {  
 return age;  
 }  
  
 public void setAge(int age) {  
 this.age = age;  
 }  
  
 public String getPhoneNum() {  
 return phoneNum;  
 }  
  
 public void setPhoneNum(String phoneNum) {  
 this.phoneNum = phoneNum;  
 }  
  
 public String getSssNum() {  
 return sssNum;  
 }  
  
 public void setSssNum(String sssNum) {  
 this.sssNum = sssNum;  
 }  
  
 public String getPagibigNum() {  
 return pagibigNum;  
 }  
  
 public void setPagibigNum(String pagibigNum) {  
 this.pagibigNum = pagibigNum;  
 }  
  
 public String getPhilHealthNum() {  
 return philHealthNum;  
 }  
  
 public void setPhilHealthNum(String philHealthNum) {  
 this.philHealthNum = philHealthNum;  
 }  
  
 @Override  
 public String toString() {  
 return "{" +  
 "id=" + id +  
 ", fName='" + fName + '\'' +  
 ", lName='" + lName + '\'' +  
 ", age=" + age +  
 ", phoneNum='" + phoneNum + '\'' +  
 ", sssNum='" + sssNum + '\'' +  
 ", pagibigNum='" + pagibigNum + '\'' +  
 ", philHealthNum='" + philHealthNum + '\'' +  
 '}';  
 }  
  
 public String toStringDeduction(double salary) {  
 return "{" +  
 "pension=" + getPensionCont(salary) +  
 ", SSS='" + getSSSCont(salary) + '\'' +  
 ", Pagibig='" + getPagibigCont(salary) + '\'' +  
 ", PhilHealth=" + getPhilHealthCont(salary) +  
 ", Tax='" + getTaxCont(salary) + '\'' +  
 ", Total Deduction='" + getTotalDeductions(salary) + '\'' +  
 ", Net Salary='" + (salary - getTotalDeductions(salary)) + '\'' +  
 '}';  
 }  
 private double getTotalDeductions(double salary){  
 double total = getPensionCont(salary) + getSSSCont(salary) + getPagibigCont(salary) + getPhilHealthCont(salary) + getTaxCont(salary);  
 return total;  
 }  
  
 private double getPensionCont(double salary) {  
 double pensionCont = 0;  
 if(age <= 17){  
 pensionCont = 0;  
 }else if(age > 17 && age <= 55){  
 pensionCont = salary \* 0.15;  
 }else if(age > 55 && age <= 60){  
 pensionCont = salary \* 0.10;  
 }else if(age > 60 && age <= 65){  
 pensionCont = salary \* 0.075;  
 }else if(age > 65){  
 pensionCont = salary \* 0.05;  
 }  
 return pensionCont;  
 }  
  
 private double getSSSCont(double salary) {  
 return salary \* *getSssRate*();  
 }  
 private double getPagibigCont(double salary) {  
 return salary \* *getPagibigRate*();  
 }  
 private double getPhilHealthCont(double salary) {  
 return salary \* *getPhilhealthRate*();  
 }  
  
 private double getTaxCont(double salary) {  
 double taxCont = 0;  
 if(salary < 10000){  
 taxCont = salary \* 0.1;  
 }else if(salary > 10000 && salary <= 30000){  
 taxCont = 500 + ((salary - 10000) \* 0.10);  
 }else if(salary > 30000 && salary <= 70000){  
 taxCont = 2500 + ((salary - 30000) \* 0.15);  
 }else if(salary > 70000 && salary <= 140000){  
 taxCont = 8500 + ((salary - 70000) \* 0.20);  
 }else if(salary > 140000 && salary <= 250000){  
 taxCont = 22500 + ((salary - 140000) \* 0.25);  
 }else if(salary > 250000 && salary <= 500000){  
 taxCont = 50000 + ((salary - 250000) \* 0.30);  
 }else if(salary > 500000){  
 taxCont = 125000 + ((salary - 500000) \* 0.32);  
 }  
 return taxCont;  
 }  
}

public class SalariedEmployee extends Employee{  
  
 private double weeklySalary;  
  
 public SalariedEmployee(double weeklySalary) {  
 this.weeklySalary = weeklySalary;  
 }  
  
 public SalariedEmployee(int id, String fName, String lName, int age, String phoneNum, String sssNum, String pagibigNum, String philHealthNum, double weeklySalary) {  
 super(id, fName, lName, age, phoneNum, sssNum, pagibigNum, philHealthNum);  
 this.weeklySalary = weeklySalary;  
 }  
  
 public double getWeeklySalary() {  
 return weeklySalary;  
 }  
  
 public void setWeeklySalary(double weeklySalary) {  
 this.weeklySalary = weeklySalary;  
 }  
  
  
  
 public String weeklySalaryToString() {  
 return "{" +  
 "weeklySalary=" + weeklySalary +  
 '}';  
 }  
  
 public String monthlySalaryToString() {  
 return "{" +  
 "monthlySalary=" + getMonthlySalary(getWeeklySalary()) +  
 '}';  
 }  
 public double getMonthlySalary(double weeklySalary){  
 return getWeeklySalary() \* 4;  
 }  
}

public class HourlyEmployee extends Employee{  
  
 private int hoursWorked;  
 private double wageRate;  
  
 public HourlyEmployee() {  
 }  
  
 public HourlyEmployee(int hoursWorked, double wageRate) {  
 this.hoursWorked = hoursWorked;  
 this.wageRate = wageRate;  
 }  
  
 public HourlyEmployee(int id, String fName, String lName, int age, String phoneNum, String sssNum, String pagibigNum, String philHealthNum, int hoursWorked, double wageRate) {  
 super(id, fName, lName, age, phoneNum, sssNum, pagibigNum, philHealthNum);  
 this.hoursWorked = hoursWorked;  
 this.wageRate = wageRate;  
 }  
  
 public int getHoursWorked() {  
 return hoursWorked;  
 }  
  
 public void setHoursWorked(int hoursWorked) {  
 this.hoursWorked = hoursWorked;  
 }  
  
 public double getWageRate() {  
 return wageRate;  
 }  
  
 public void setWageRate(double wageRate) {  
 this.wageRate = wageRate;  
 }  
  
 public String weeklySalaryToString() {  
 return "{" +  
 "weeklySalary=" + getWeeklySalary() +  
 '}';  
 }  
  
 public String monthlySalaryToString() {  
 return "{" +  
 "monthlySalary=" + getMonthlySalary() +  
 '}';  
 }  
  
 public double getWeeklySalary(){  
 int NORMAL\_HOURS = 40;  
 double weekly;  
 int extraHours;  
  
 if(getHoursWorked() > NORMAL\_HOURS){  
 extraHours = getHoursWorked() - 40;  
 weekly = (NORMAL\_HOURS\*getWageRate()) + (getWageRate()\*1.5)\*extraHours;  
 return weekly;  
 }  
  
 weekly = getHoursWorked() \* getWageRate();  
 return weekly;  
 }  
  
 public double getMonthlySalary(){  
 return getWeeklySalary() \* 4;  
 }  
}

