

Assignment 5

Q1) A company pays its employees on a weekly basis. The employees are of four types:

Salaried employees are paid a fixed weekly salary regardless of the number of hours worked.

Hourly employees are paid by the hour and receive overtime pay (i.e., 1.5 times their hourly salary rate) for all hours worked in excess of 40 hours.

Commission employees are paid a percentage of their sales.

Base-salaried commission employees receive a base salary plus a percentage of their sales.

For the current pay period, the company has decided to reward salaried-commission employees by adding 10% to their base salaries. The company wants to write an application that performs its payroll calculations polymorphically.

Execution Steps -> (No need for menu driven)

1. When program executes it should ask for which type of employee calculation needs to be done.
2. on the choice create object of that employee.
3. call the respective methods of that class
4. use of upcasting and downcasting is required.

	earnings	toString
Employee	abstract	firstName lastName social security number: SSN
Salaried- Employee	weeklySalary	salaried employee: firstName lastName social security number: SSN weekly salary: weeklySalary
Hourly- Employee	<pre> if (hours <= 40) wage * hours else if (hours > 40) { 40 * wage + (hours - 40) * wage * 1.5 } </pre>	hourly employee: firstName lastName social security number: SSN hourly wage: wage; hours worked: hours
Commission- Employee	commissionRate * grossSales	commission employee: firstName lastName social security number: SSN gross sales: grossSales; commission rate: commissionRate
BasePlus- Commission- Employee	(commissionRate * grossSales) + baseSalary	base salaried commission employee: firstName lastName social security number: SSN gross sales: grossSales; commission rate: commissionRate; base salary: baseSalary