

## Assignment No. 4

**Q.1** Write a class *Person* using class *Date* and class *Address* and check the functionality in *main*.

**Q.2** Write a class *Rectangle*, *Circle* and *Triangle* to calculate area and perimeter. Write a menu driven program and test the functionality in *main*.

**Q.3** 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 and 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.

earnings

toString

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