Inheritance – Lab

You are a programmer in the IT department of an important law firm. Your job is to create a program that will report gross salary amounts and other compensation.

There are three types of employees in your firm:
- Programmers
- Lawyers
- Accountants

Your computer-based solution will use inheritance to reflect the 'general-to-specific' nature of your employee hierarchy.

Common attributes for all employees are:
- Name
- Salary

Attributes for specific employee types are:
- Lawyers:
  > Stock options earned (type int)
- Accountants
  > Parking allowance amount (type double)
- Programmers:
  > Bus pass (type boolean)

The three specific classes of employees should extend the <u>abstract</u> Employee class (nobody is a generic employee) and implement their own reportSalary() method.

The pay schedule is:
- o Employees earn the base salary of $40K per year
- o Accountants earn the base employee salary per year
- o Programmers earn the base employee salary plus $20K per year
- o Lawyers earn the base employee salary plus $30K per year

Requirements:

- o Each subclass of Employee <u>must</u> implement its own reportSalary() method. The specific implementations of reportSalary() are limited to a printed line:

  System.out.println("I am a lawyer. I get " + getSalary() + ", and I have " + getOptions() + " shares of stock.");

System.out.println("I am an accountant. I make " + getSalary() + " plus a parking allowance of " + getParking());

System.out.println("I am a programmer. I make " + getSalary() + " and I" + ((getBusPass())?" get a bus pass.":" do not get a bus pass."));

- o Salaries for specific types of employees are in addition to the base employee salary. Raising the base employee salary should automatically raise salaries for all types of employees (hmmm…).
- o An object of the 'Employee' class cannot be instantiated because it would be too general.
- o Attribute(s) that belong to a super or sub class should be initialized in the corresponding class constructor.

Task 1:
Setup a class hierarchy to accurately reflect the relationships in your law firm.

Task 2:
Create a driver program that will create employee objects and report salaries for your company's employee base:

Programmers:	(your name goes here)	-	No bus pass
	Will E. Makit	-	Bus pass
Lawyers:	Ivana Killmen	-	11 shares signing bonus
	Luke N. Dimm	-	0 shares signing bonus
	Eileen Dover	-	100 shares signing bonus
Accountants:	Bill Cheatem	-	Parking allowance – $ 17.00
	Joe Kisonyou	-	Parking allowance – $ 45.50
	Seymore Butts	-	Parking allowance – $ 2.50

Print your code listing and submit on paper, in class. See Canvas for due date.