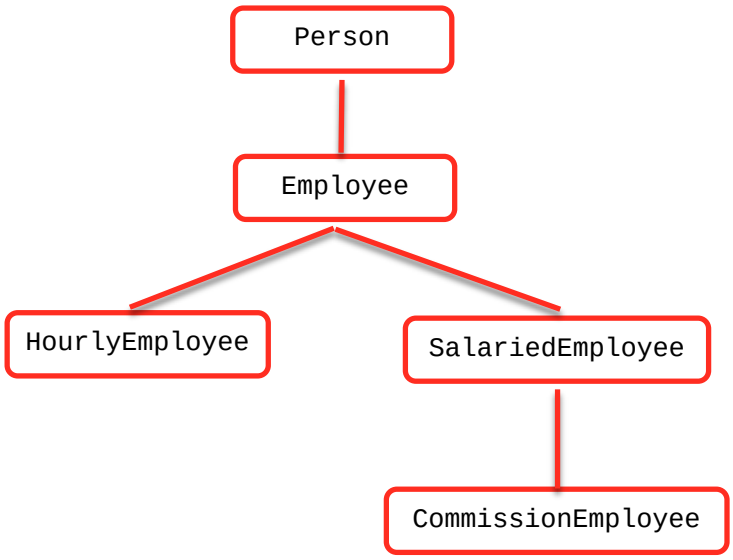
Lab #2
CSCI 201

Title
Employee Salary Determination

Lecture Topics Emphasized
Inheritance
Polymorphism

Introduction
Inheritance is a very useful topic in modern programming languages. Although it can be very powerful, it should only be used when an application that warrants its use presents itself. In other words, use inheritance when it makes sense to reuse and extend code in a class, but make sure you recognize the difference between composition and inheritance.

Description
For this lab, you will have to implement the inheritance hierarchy below.



Here is the data that needs to be in each class. Other data can be included, but at least the following data should be included.

```
Person
firstName
lastName
birthdate

Employee
employeeID
jobTitle

HourlyEmployee
hourlyRate
numberHoursPerWeek

SalariedEmployee
annualSalary

CommissionEmployee
salesTotal
commissionPercentage
```

Based on the inheritance hierarchy, every `Employee`, `HourlyEmployee`, `SalariedEmployee`, and `CommissionEmployee` will have a `firstName`, `lastName`, and `birthdate`, for example.

To make use of polymorphism, add the following method into the `Employee` class.

```
public abstract double getAnnualSalary();
```

You will also need to create other methods in all of the classes as needed to make the Lab3.java file that is posted on the course web site work with your code. Note that you are **not** allowed to make **any** changes to the Lab3.java file. Use 52 weeks in a year to compute salary where needed.

Sample Execution

Here is the output of your program when run with the Lab2.java file. There is no user input in this program. Your output should not be hard-coded, but instead you should make sure you fully understand inheritance and polymorphism.

```
Employee Information
--------------------
Name: Bill Gates
Birthdate: October 28, 1955
Title and Company: Co-founder at Microsoft
ID: 1
Annual Salary: $1.15E10

Employee Information
--------------------
Name: Paul Allen
Birthdate: January 21, 1953
Title and Company: Co-founder at Microsoft
ID: 2
Annual Salary: $1.0E9

Employee Information
--------------------
Name: Sammy Salesman
Birthdate: January 1, 1970
Title and Company: Salesman at Sales Company
ID: 3
Annual Salary: $400000.0

Employee Information
--------------------
Name: Harriet Hourly
Birthdate: December 31, 1971
Title and Company: Hourly Woman at Hours R Us
ID: 4
Annual Salary: $41600.0
```

Grading Criteria

Labs are not graded based on any given criteria but are instead graded on effort and attendance. If you arrived to lab within the first 10 minutes and worked on it the for the entire duration of the lab, you will receive full credit regardless of whether you completed it. TAs will not grade labs until after at least half the lab period has elapsed. Use the lab time as an opportunity to more fully understand the course material and ask your TA questions.