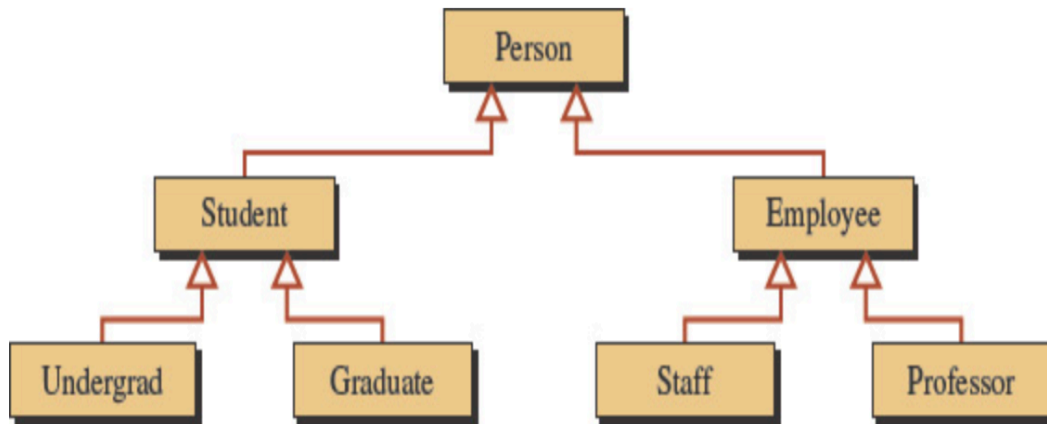


CIS4100: Object oriented II using C++

Midterm Project

The objective of this project is to design and create classes and their relationships that simulate relationships between a person, a student and an employee. Your project should include seven related classes as shown in the diagram below.



Criteria:

- Use name as the only data member for the Person class.
- Use name and gpa as data members for the Student class.
- Use name and salary as data members for the Employee class.
- Use year (1, 2, 3, 4) for the Undergraduate class.
- Use goal (master, phd) for the Graduate class.
- Use status (manager, nonmanager) for the Staff class.
- Use status (part-time, full-time) for the Professor class.
- Write getters and setters methods for each and every private attribute for all the classes
- Each class should include at least one constructor of your choice
- Add a method in the student class to check if the student is an honor student (GPA greater than 3.85)
- Add a method in the Employee class that calculate the new salary every year, suppose that all employees get a 3% raise every year.
- Add a data member to the class Student that is a list of courses taken. The list must be implemented as an array, then add appropriate getter and setter.
- Use the concept of redefinition/overriding using a Method of your choice.
- Your Client file with the main method should create objects of all the classes and test all the methods with appropriate data of your choice.

Submit all your files as a zip compressed folder to the Drop Box by the due date.