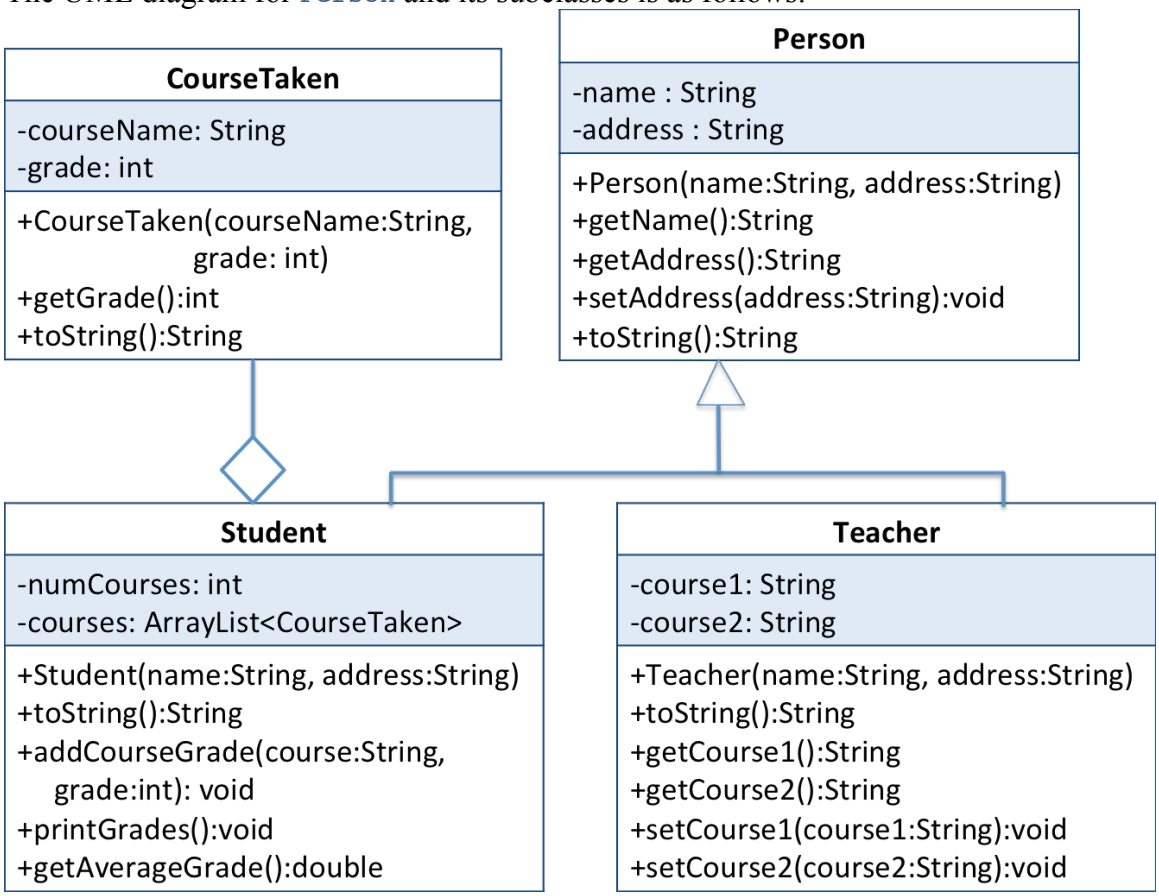
CSC 220 – Lab 10

Objective
In this lab, you are going to play with class hierarchy and exercise on inheritance in Java.

Java programs:

Suppose that we are required to model students and teachers in our application. We can define a superclass called `Person` to store common properties such as `name` and `address`, and subclasses `Student` and `Teacher` for their specific properties. An object of the type `CourseTaken` is used to store a course a student takes and the grade the student gets for this course. For students, we need to maintain the courses taken and their respective grades using the class `CourseTaken`; add a course with grade, print all courses taken and the average grade. A student takes at least 5 courses. For teachers, we need to maintain 2 courses taught currently.

The UML diagram for `Person` and its subclasses is as follows:



According to the requirement, implement these three classes. Write a `Test` driver class that does the following:

1. Create a student object s with your name and your address.
2. Print out the information of object s.

3. Add 6 courses with grades for each of the courses for student s.
4. Print out the grades and the average grade of student s.
5. Create a teacher t with one of your teachers' name and an address.
6. Print out the information of object t.
7. Set two courses that teacher t teaches.
8. Print out the courses that teacher t teaches.

What to turn in:

JAR your `*.java` files into a file called `Lab10.jar`. When you're done, submit the file to Canvas by the deadline. No extensions.