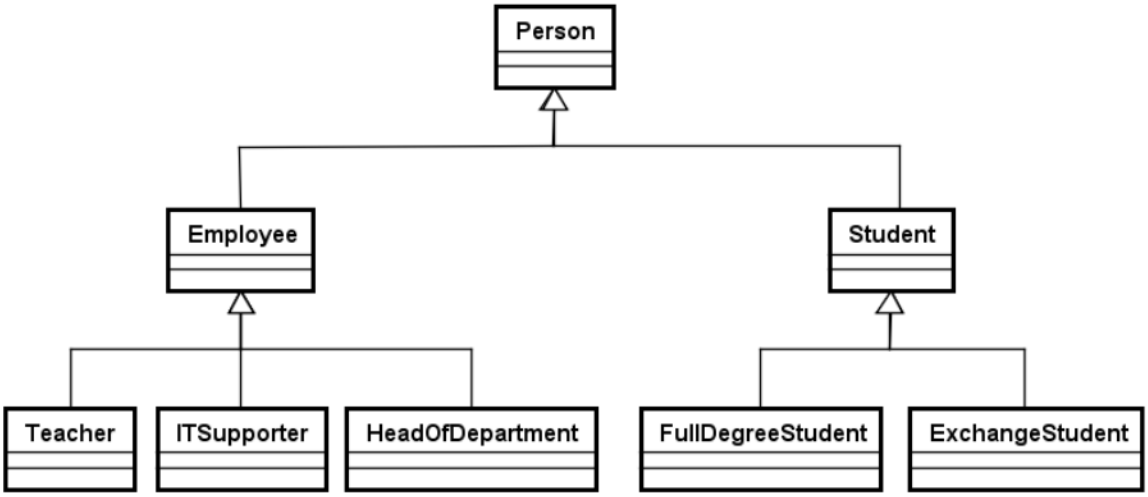
Exercise 21.02

Based on the example I showed during the lessons, then create the class hierarchy shown in the class diagram below:



All classes should have relevant instance variables, plus the necessary get and set methods. Furthermore, the classes should all have a `toString` and an `equals` method.

Some of the classes you can take directly from my example, but for the others you should try to come up with some relevant instance variables yourself, and then create get and set methods for them. For those suffering from a lack of imagination, then a few suggestions for some of the new classes could be:

In class Teacher: `String[] courses` (or `ArrayList<String> courses`)
In class ITSupporter: `String workArea` (e.g. "software" or "hardware")
In class HeadOfDepartment: `String department`

First draw a UML class diagram of your solution (with all instance variables, constructors, and methods), and then implement the classes in Java. Then (as always) create a test class to test the functionality.

Exercise 21.03

[Gaddis] Programming Challenges 7+8, p. 699