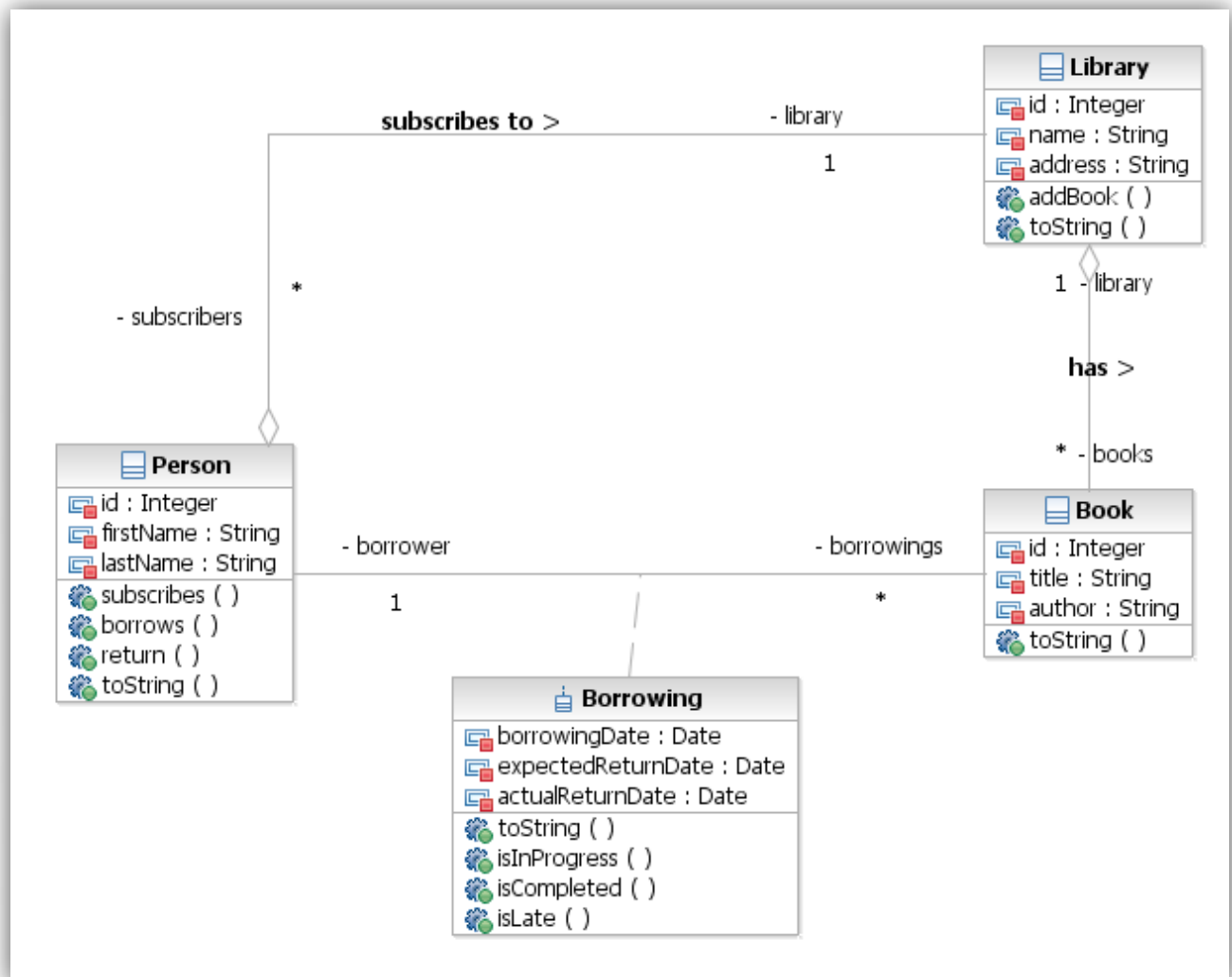# Professional Development with Java

Hands-On Session #2

The goal of this hands-on session is to develop a simple layered application by using a test-driven approach and by programming defensively.

The model of the application is to following one:

Refer to the attached zipped HTML site (generated using IBM Rational Software Modeler) to get the detailed signature of the methods and some documentation.

The application will be split in 2+1 Eclipse projects:
1. `axeModel` will contain the business model of the application (cf. UML class diagram above).
2. `axeData` is aimed at containing classes which will instantiate the model based on some data contained in files. For each class of the model, a corresponding data loader/serialization class will be created (for example, libraries will be loaded/serialized using a `LibraryDataHandler` class). Data will be read from CSV files (one file per class).
   The design of this layer is free (but, please, keep it simple).
3. `axeTest` will contain the unit tests for the whole application.

Guidelines:

- The application will be developed using Java 1.4 (no generics, no autoboxing, etc.).
- Data loading/serialization will use the Apache Commons IO 1.4 library (http://commons.apache.org/io/).
- Collections may be handled using Apache Commons Collections 3.2.1 (http://commons.apache.org/collections/).
- Unit tests will be defined using JUnit 3.8.
- Code coverage will be assessed using Cobertura 1.9.4.1 (http://cobertura.sourceforge.net/) which will be invoked using Ant.
- As you're expected to do test-driven development, the code you MUST develop first is the one in the `axeTest` project.
- And, don't forget, **think before coding!** This should be easy thanks to test-driven development.