Class Diagram from Java classes Exercise

Hubert Baumeister

February 2022

1 Problem

Create a class diagram from the classes in the following source files: http://www2.compute.dtu.dk/courses/02291/files/library_class_diagram_exercise.zip. This is a Maven project. Unpack the Zip-file and In Eclipse use "Import>existing Maven project" and in IntelliJ open the pom.xml file. The source files are in src/main/java)

This exercise is about the relationship between a program (here written in Java) and a UML class diagram. It is not important to create a faithful class diagram based on the source code, but a class diagram that helps understand how the code is structured. This, for example, means that the class diagram should not contain getter and setter methods. Instead it should rather show the fields represented by the getter and setter method as attributes (maybe with annotation {readOnly} if the attribute has a getter method but not a (public) setter method).

You will also want to omit constructors in the UML class diagram. Usually, the information that there is a constructor does not contribute to the understanding of a class diagram. This is true for the default constructor but also for constructors that have arugments.

You also want to prefer associations over attributes whenever it makes sense (e.g. when both classes are shown in the class diagram).

Note: The source code compiles, but the body of most of the methods are removed, so that the application does not run (nor pass any tests:-). The focus in this exercise is about the relationship between Java code and UML class diagram.