

## Exercise 03.2 – More Associations

### The Setup:

The main objective of this exercise is to create different types of associations.

Start this exercise by creating a new project called **exercise-03-2**. Remember to add the dependencies to the project's pom.xml file.

The exercise consists out of 6 parts; you will have to create an association between two entity classes in each. These entity classes are not provided, which means you will have to create them as needed for the different parts. Remember to use the code-generating features provided by your IDE when making these entity classes.

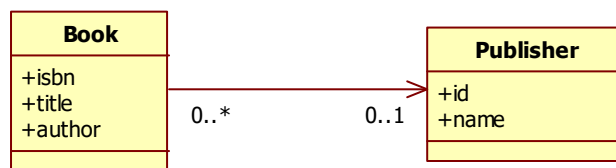
Be sure to update the main method for each of the following exercises so that you can test and see the results of the mapping in the database.

### The Exercise:

- a) Create a **Bidirectional OneToMany** association between **Department** and **Employee** using annotations.



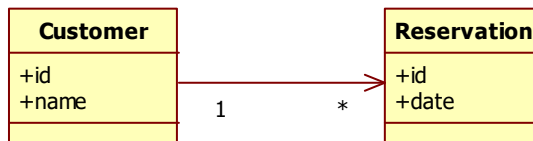
- b) Create an **Optional Unidirectional ManyToOne** association between **Book** and **Publisher** using annotations and without using NULL fields in the database



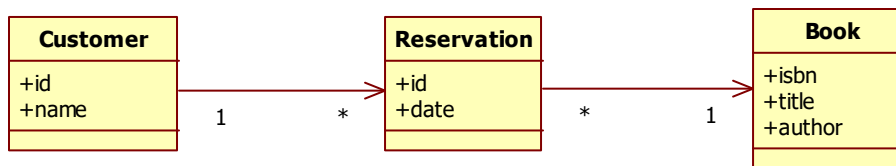
- c) Create a **Bidirectional ManyToMany** association between **Student** and **Course** using annotations.



- d) Create a **Unidirectional OneToMany** association between **Customer** and **Reservation** using annotations.



- e) Create a **Unidirectional ManyToOne** association between **Reservation** and **Book** using annotations.



- f) Create a **Bidirectional ManyToOne** association between **Employee** and **Office** using annotations.

