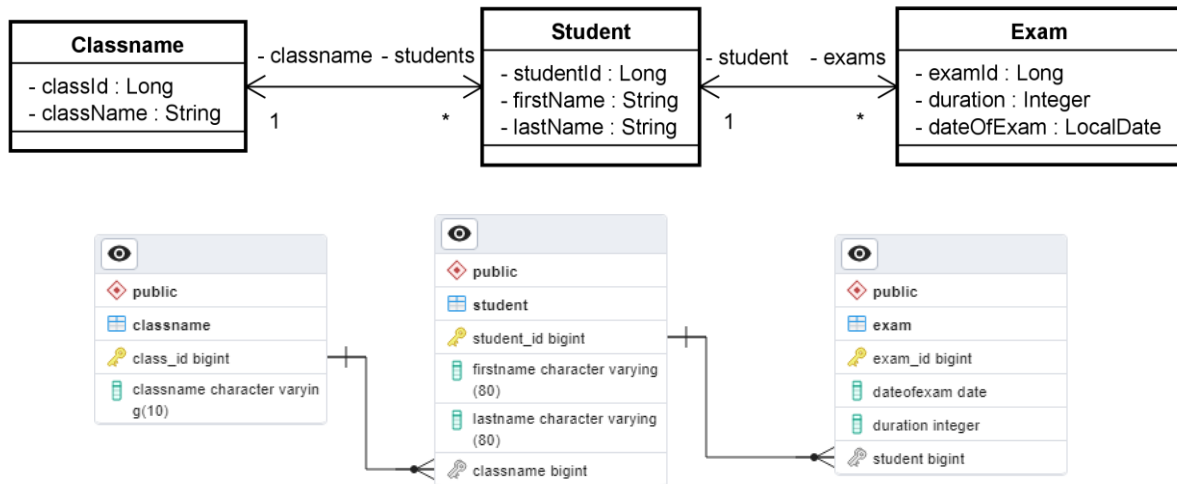


Exam DB

SPRING BOOT, JSON, LOMBOK, JACKSON, JPA

Create a Spring-Application using JPA to manage exams. All tables in the **examdb** Postgres database need to be created via JPA-mapping.



Use the ERD and the class diagram to create the mapping for the entity classes. **All names and datatypes need to exactly match the ERD and CD.**

Implement all needed methods and constructors for the pojo-classes using the Lombok annotations. Additionally, set all necessary JSON-annotations within the pojo-classes to read the **examdb.json** file.

pojos.Classname.java

- The primary key is created by the constructor (value from the JSON file).
- JPA annotations
- Lombok annotations

pojos.Student.java

- The primary-key value is created by the database (don't use the value from the JSON file).
- JPA annotations
- Create the query **getStudentsByClassnameAndDuration** to get all students of a class (e.g. 4AHIF) with a defined exam duration (e.g. 30 minutes) from the database. The students are sorted by their last name in ascending order.
- Create the query **countStudentsWithinExamPeriod** to count all the students that have an exam between a start and end date.
- Lombok annotations
- JSON annotations

pojos.Exam.java

- The primary key is created by the constructor (value from the JSON file).
- JPA annotations
- Lombok annotations
- JSON annotations