HOMEWORK

Homework 3

ER Diagram

To quickly get an overview of a database design, an ER diagram can be used to show other database designers how a database can look like. *It is recommended to use applications such as https://app.diagrams.net/ to create clear and easy to read diagrams for both the TA and the students sake.*

- An unreadable/unclear diagram will not be approved.
- Use the notations from the lecture slides.

1. Draw an ER diagram based on Homework 2 (Note: not including the P+ question) and the case study. Here is a reminder of some of the requirements the database needs to uphold:
    - A book *can* have more than one author, genre, publisher, edition, language.
    - Support for sequels and prequels.
    - ISBN support is not needed for every book.
    - Physical book ID.
    - User Data support.
    - Borrowing and fine data.
    - There can exist more than one copy of a book.

3. Create an ER diagram of the complete database, make sure to include all of the above parts and include the rest of the required data from the case study.
4. **The finished ER diagram should be in the state of BCNF.**

Homework 3 P+

ER to UML diagram

In the industry, UML is often used to get an overview of the database (and many other things such as program class structure).

- Translate the ER diagrams into an UML diagrams. **Use the notations from the lecture slides**. Make sure that both diagrams are the same **if** implemented as an SQL database.