HOMEWORK

Homework 2

BCNF/Normal Form

In this homework we want you to define the normal forms and then work with BCNF to normalize your solution for the case study.

1. Identify all relations that represent your solution for the case study, express them as schemas with attributes and domains (data types).
2. With all relations identified from the case study, decompose the relations into BCNF.

Here are some requirements that the database should be able to support:
1. A book *can* have more than one author, genre, publisher, edition, language.
2. Support for sequels and prequels.
3. ISBN support is not needed for every book.
4. Physical book ID.
5. User Data support.
6. Borrowing and fine data.
7. There can exist more than one copy of a book.

Homework 2 P+

Controlling Changes

When working with a database there might be new specifications or issues that have to be dealt with. In this question we will investigate a possibility where a book can be <u>damaged in multiple and different ways</u>. That is, what do we have to change if we have to induce new attributes onto a book?

- **Add and/or change table/s to your schema that makes it possible to store data about various damages to a book e.g. missing pages, burnt, torn, water damage**.
  *Please note that this will **NOT** be a part of Lab 2 and nor are the changes needed through the remaining homework's.*

When you have these new changes, you will still have to maintain your whole schema to be in BCNF:
- **Make sure that your database is still in BCNF.**