Exercise: More Normalization

Review the following tables then answer the questions at the end of the assignment.

AUTHOR table

* Author\_ID, PK
* First\_Name
* Last\_Name

TITLES table

* TITLE\_ID, PK
* NAME
* Author\_ID, FK

DOMAIN table

* DOMAIN\_ID, PK
* NAME
* TITLE\_ID, FK

READERS table

* READER\_ID, PK
* First\_Name
* Last\_Name
* ADDRESS
* CITY\_ID, FK
* PHONE

CITY table

* CITY\_ID, PK
* NAME

BORROWING table

* BORROWING\_ID,PK
* READER\_ID, FK
* TITLE\_ID, FK
* DATE

HISTORY table

* READER\_ID,FK,PK
* TITLE\_ID,FK,PK
* DATE\_OF\_BORROWING
* DATE\_OF\_RETURNING
  1. Are these tables in 3rd Normal Form (3NF)? Why or why not?
  2. What if two authors work together on the same title?
  3. Should the column ADDRESS in the READERS table have its own table? Why or why not?
  4. When a reader borrows a book, I make an entry in BORROWING table. After he returns the book, I delete that entry and I make another entry in the HISTORY table. Is this a good idea? Do I break any rules? If so, which ones? Should I have instead one single BORROWING table with a DATE\_OF\_RETURNING column? Why or why not?