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Exercise: More Normalization

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

* 1. Are these tables in 3rd Normal Form (3NF)? Why or why not?

No. For example, the READERS table has subkeys. If you assume all phone numbers are unique, then any set with the phone attribute would make a subkey. If multiple people can live at the same address and no two people at a same address can have identical names, then Address can also be a part of a subkey.

* 1. What if two authors work together on the same title?

If two authors work together on the same title, then the authors attribute should be placed in a new table

* 1. Should the column ADDRESS in the READERS table have its own table? Why or why not?

Assuming multiple people can live at the same address, and no two people living at the same address have the same exact name, then the Address column should have its own table because in that case, the set containing name and address is a subkey.

* 1. 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?

This is not a good idea because it is better to instead have one single BORROWING table with a DATE\_OF\_RETURNING column. If you put both the date borrowed and date returned in the Borrowing table, it makes the History table unnecessary.