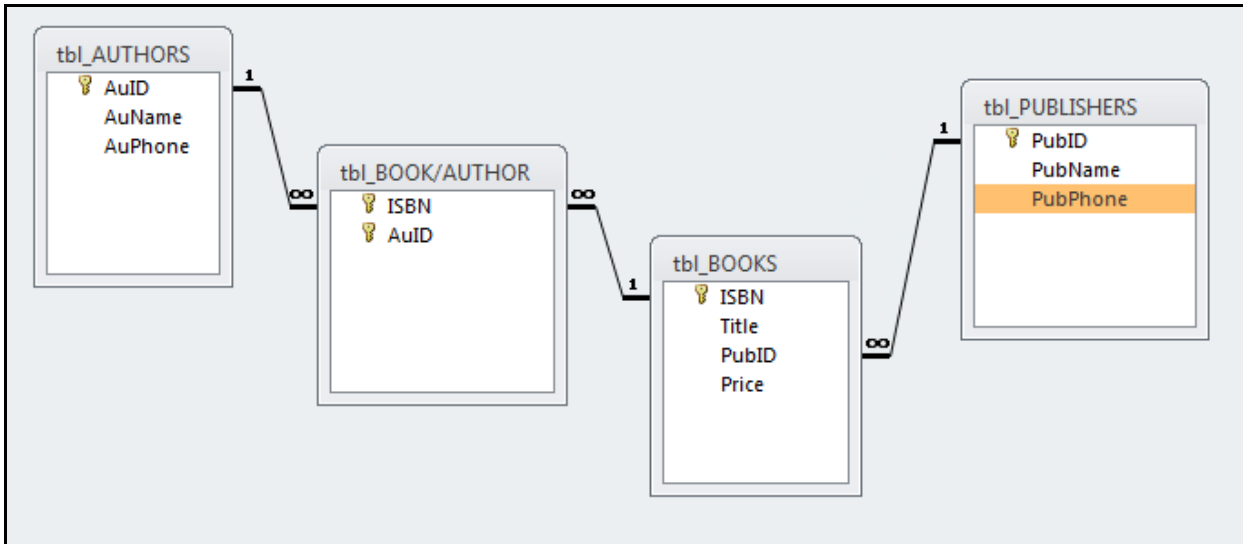




Below is the relational diagram of the Author/Book/Publisher Data.



The basic steps to design a database are as follows:

1. Collect data about the business model.
2. Divide the data into main subjects, so called Entities (Entities become tables in most cases).
3. Assign fields to the subjects, ensuring that the field truly adds information to the subject (attribute of an Entity).
4. Test the first normal form (1NF)
5. Determine primary keys.
6. Test the second normal form (2NF) (applies only to composite primary key tables).
7. Test the third normal form (3NF).
8. Create relationships:
 - a. If a one-to-many relationship is encountered, everything is fine.
 - b. If a one-to-one relationship is encountered, question it. Can both tables be combined into one table?
 - c. If a many-to-many relationship is encountered, create an intersection table.
9. Enter some test data and verify that all data is stored accordingly.
10. Fine-tune the database, formats, input masks, validation rules, etc.

If the Price field in the book table needs to be tracked over time, another table is required. See the relation diagram below. The current Price is stored in the books table, but all other prices of a book are stored in the BookPrice table.

