

7BUIS030W Data System Concepts and Fundamentals

Tutorial 03

Model Solutions

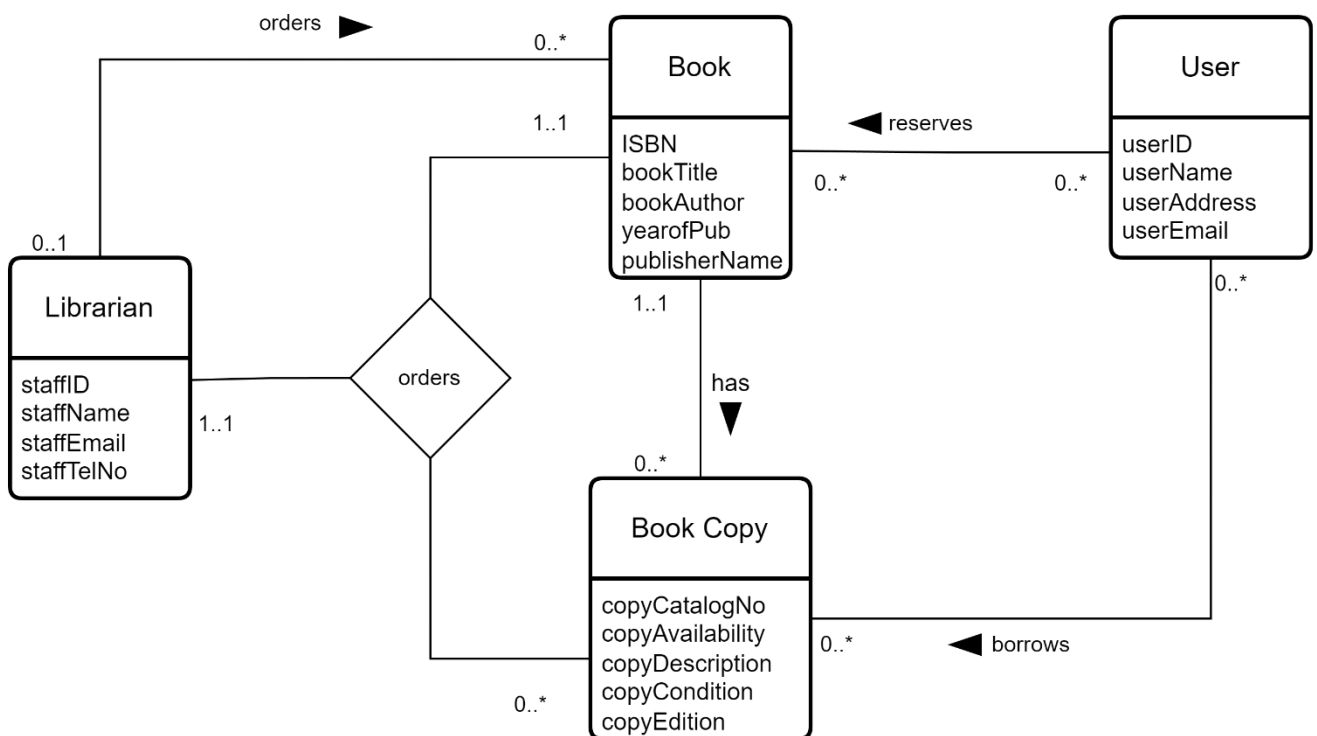
To answer the questions in this tutorial ,please refer to Lecture-3 and 4 in Blackboard

Tutorial 03 Exercise 01

The university library offers many academic books and every book title can have several copies. Librarians are responsible for placing orders for new books or new copies of already existing titles. It is essential that a record is kept of which librarian orders which copies of which book title. As for the library users, they can place a reservation for a book title and, if the book is available, they can then borrow a copy of that book.

For the above case study:

- Identify the main entities of the library
- Identify the main relationships between the entities.
- Produce an ERD for the library database model
- Determine the multiplicities for each relationship and represent them on the ERD.



Tutorial 03 Exercise 02

Create a basic conceptual ERD for the following scenario. Include entities, attributes, relationships and multiplicities. A recruitment company works for organisations that require people to apply for positions. The organisation specifies how many positions are available. The positions demand required skill/s. The positions will be filled by the candidates with the required skills. The candidates registered for the company may or may not accept any positions offered to them.

For the above case study:

- Identify the main entities of the library
- Identify the main relationships between the entities.
- Produce an ERD for the library database model
- Determine the multiplicities for each relationship and represent them on the ERD.

