

## • Homework 1

- Online Bookstore Application:
  - **Requirements:** The online bookstore will contain information about books of various categories, written in different languages by different authors, published by different companies. It will keep a track of their availability and the units of each book currently in stock. Every book has a unique identification code, called the ISBN. A customer logs onto the site with his login/password. Upon authentication, he/she can browse the site, place one or more orders. Every order will be assigned a unique number. An order can consist of ordered books of different kinds and quantities.
- Define the entities and their attributes of this application
- Normalize the tables of this application

## • Homework 2

- From the course data-folder:
  - Drug\_Expenditure\_UniversalTable.xlsx
  - Small instantiation of the data for the example
- Step-by-step, normalize this universal table to 3rd normal form.
  - Use a separate sheet for each entity
  - Bold headers for primary keys
  - Asterix for headers that are foreign keys
- Reading: Chapter 2 (DME)

HW 1.

Entity	Attribute
book	category, language, author, publisher, availability, stock, ISBN
customer	username, password, orders
order	order number, ordered book kind, ordered book quantity.

primary keys: ISBN, username, order number.

## 1st Normal Form:

ISBN	category	language	author	publisher	availability	unit in stock	customer username	password	order number	kind	quantity

## 2nd NF:

book table

ISBN	category	language	author	publisher	availability	unit in stock

customer & order table

customer username	password	order number	ISBN	book kind	quantity

3rd NF:

book table

ISBN	category	language	author	publisher	availability	unit in stock

customer table

customer username	password
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order table

order number	book kind	quantity
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book, customer, order table -

ISBN	customer username	order number
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