

## Odpowiedzi:

- DDL

1. CREATE DATABASE reading\_room character set utf8mb4 collate utfmb4\_polish\_ci;
2. CREATE TABLE books (title VARCHAR(128), publish\_date DATE, author VARCHAR(128), ISBN CHAR(16), category VARCHAR(256), pages SMALLINT, publisher VARCHAR(128), netto\_price DECIMAL(5,2), vat\_rate TINYINT, reserved TINYINT(1));
3. CREATE TABLE orders (order\_number INT, first\_name CARCHAR(32), last\_name VARCHAR(32), order\_date DATE, return\_date DATE, book\_title VARCHAR(128));

- DCL

1. CREATE USER 'reading\_room\_admin'@'localhost' IDENTIFIED BY 'reading\_room\_admin';  
  
GRANT ALL PRIVILEGES ON reading\_room.\* TO 'reading\_room\_admin'@'localhost';
2. \connect -mysqlx reading\_room\_admin@localhost;  
  
USE reading\_room;
3. CREATE USER 'reading\_room\_user'@'localhost' IDENTIFIED BY 'reading\_room\_user';  
  
GRANT INSERT ON reading\_room.\* TO 'reading\_room\_user'@'localhost';

- Normalizacja

1. ALTER TABLE books drop column author;  
  
ALTER TABLE books DROP COLUMN category;  
ALTER TABLE books ADD COLUMN book\_id INT PRIMARY KEY AUTO\_INCREMENT;  
CREATE TABLE categories (category\_id INT PRIMARY KEY AUTO\_INCREMENT, name VARCHAR(32));  
CREATE TABLE authors (author\_id INT PRIMARY KEY AUTO\_INCREMENT, first\_name VARCHAR(32), last\_name VARCHAR(32));  
CREATE TABLE books\_authors (book\_id INT NOT NULL, author\_id INT NOT NULL, PRIMARY KEY(book\_id, author\_id), FOREIGN KEY(book\_id) REFERENCES books(book\_id), FOREIGN KEY(author\_id) REFERENCES authors(author\_id));  
  
CREATE TABLE books\_categories (book\_id INT NOT NULL, category\_id INT NOT NULL, PRIMARY KEY(book\_id, categor\_id), FOREIGN KEY(book\_id) REFERENCES books(book\_id), FOREIGN KEY(category\_id) REFERENCES categories(category\_id));
2. CREATE TABLE readers (reader\_id INT PRIMARY KEY AUTO\_INCREMENT, first\_name VARCHAR(32), last\_name

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VARCHAR(32));
ALTER TABLE orders DROP COLUMN first_name;
ALTER TABLE orders DROP COLUMN last_name;
ALTER TABLE orders ADD COLUMN order_id INT PRIMARY KEY
AUTO_INCREMENT;
ALTER TABLE orders DROP COLUMN book_title;
ALTER TABLE orders DROP COLUMN return_date;
ALTER TABLE orders DROP COLUMN order_date;
CREATE TABLE books_orders (book_id INT NOT NULL, order_id
INT NOT NULL, order_date DATE, return_date DATE, PRIMARY
KEY(book_id, order_id), FOREIGN KEY(book_id) REFERENCES
books(book_id), FOREIGN KEY(order_id) REFERENCES
orders(order_id));
CREATE TABLE readers_orders (reader_id INT NOT NULL,
order_id INT NOT NULL, PRIMARY KEY(reader_id, order_id),
FOREIGN KEY (reader_id) REFERENCES readers(reader_id),
FOREIGN KEY(order_id) REFERENCES orders(order_id));

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- DML

1. Pomijam

2. \source C:\...[ścieżka do pliku]\book\_source.sql

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INSERT INTO books SELECT * FROM new_books;
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3. UPDATE books SET category='Bazy danych' WHERE category='SQL';

4. DELETE FROM books WHERE category IS NULL;

5. DROP TABLE new\_books;