**customer:** customer\_id int, name varchar, email varchar;

**employee**: employee\_id int, name varchar;

**publishing house:** publish\_house\_id int, name varchar;

**reserve:** reserve\_id int, several\_copy\_id int, customer\_id int, employee\_id int;

**loan:** loan\_id int, several\_copy\_id int, customer\_id int, employee\_id int;

**author**: author\_id int, name varchar, date\_of\_birth date;

**book:** book\_id int, title varchar, publish\_house\_id int, book\_include\_keyword\_id int, shelf\_row int, shelf\_number int, author\_write\_book\_id int;

**article:** article\_id int, title varchar, journal\_id int, article\_include\_keyword\_id int, author\_write\_article\_id int;

**journal:** journal\_id int, title varchar, publisher\_id int, shelf\_row int, shelf\_number int;

**keyword:** keyword\_id int, word varchar;

**subject\_area:** subject\_area\_id int, subject\_name varchar;

**shelf:** row int, shelf\_number int;

**article\_include\_keyword:** article\_include\_keyword\_id int, article\_id int, keyword\_id int;

**book\_include\_keyword:** book\_include\_keyword\_id int, book\_id int, keyword\_id int;

**author\_write\_article:** author\_write\_article\_id int, article\_id int, author\_id int;

**author\_write\_book:** author\_write\_book\_id int, book\_id int, author\_id int;