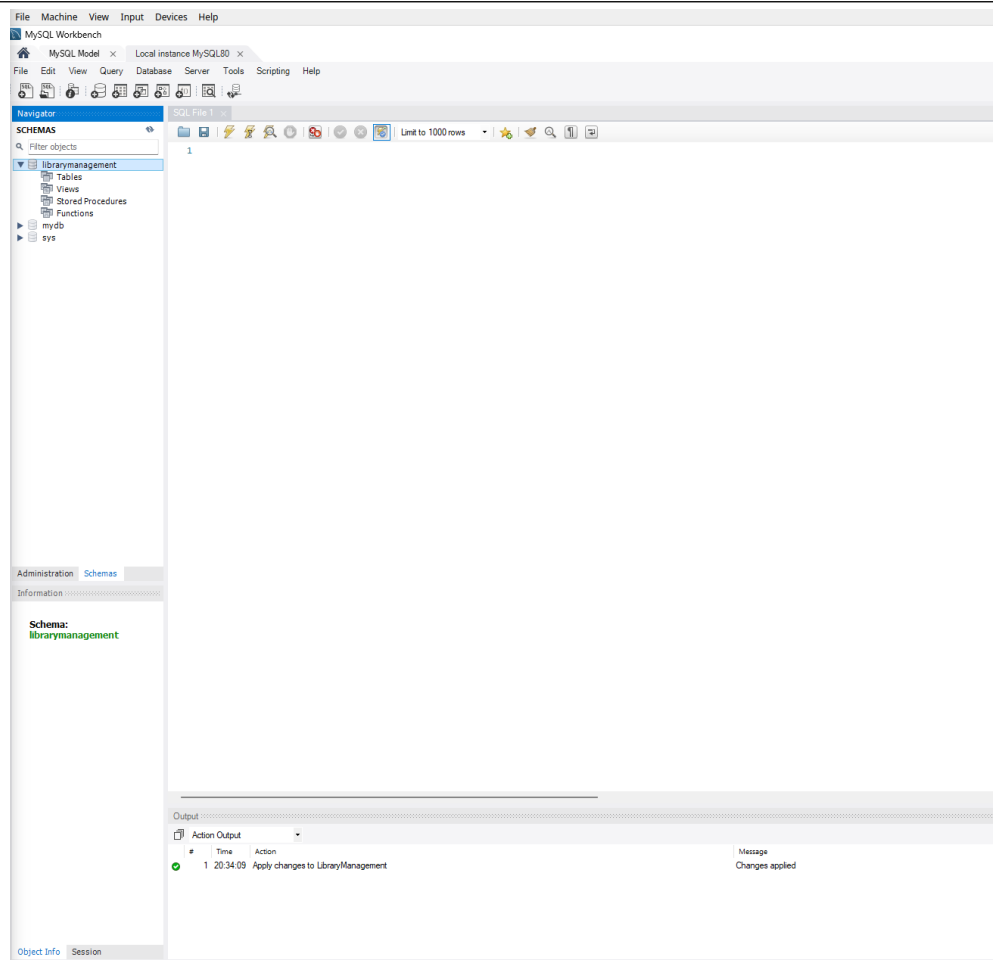


1a Create a Schema “LibraryManagement”



1b Table Authors

MySQL Workbench

MySQL Model x Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

librarymanagement

Tables

authors

Columns

Indexes

Foreign Keys

Triggers

Views

Stored Procedures

Functions

mydb

sys

Administration Schemas

Information

No object selected

SQL File 1*

Limit to 1000 rows

1 • USE librarymanagement;

2

3 • create table authors (

4 author_id INT AUTO_INCREMENT PRIMARY KEY,

5 author_name VARCHAR(255) NOT NULL

6);

7

8

1c create genres

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

librarymanagement

- Tables
 - authors
 - genre
- Columns
- Indexes
- Foreign Keys
- Triggers
- Views
- Stored Procedures
- Functions
- mydb
- sys

SQL File 1*

```
1 • USE librarymanagement;
2
3 • create table authors (
4     author_id INT AUTO_INCREMENT PRIMARY KEY,
5     author_name VARCHAR(255) NOT NULL
6 );
7
8 • create table genre(
9     genre_id int auto_increment primary key,
10    genre_name varchar(255)
11 );
```

Administration Schemas

Information

No object selected

1d create books table

MySQL Workbench

MySQL Model x Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

librarymanagement

Tables

authors

books

Columns

book_id

title

publication_year

author_id

genre_id

Indexes

Foreign Keys

Triggers

genre

Columns

Indexes

Foreign Keys

Triggers

Views

Stored Procedures

Functions

mydb

sys

Administration Schemas

Information

No object selected

SQL File 1*

Limit to 1000 rows

```
1 • USE librarymanagement;
2
3 • create table authors (
4     author_id INT AUTO_INCREMENT PRIMARY KEY,
5     author_name VARCHAR(255) NOT NULL
6 );
7
8 • create table genre(
9     genre_id int auto_increment primary key,
10    genre_name varchar(255)
11 );
12
13 • create table books(
14     book_id int auto_increment primary key,
15     title varchar(255),
16     publication_year year,
17     author_id int,
18     genre_id int,
19     foreign key (author_id) references authors(author_id),
20     foreign key (genre_id) references genre(genre_id)
21 );
```

1e create a table users

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

librarymanagement

- Tables
 - authors
 - books
 - genre
 - users
- Columns
 - user_id
 - username
 - email
- Indexes
- Foreign Keys
- Triggers
- Views
- Stored Procedures
- Functions

mydb

sys

Administration Schemas

Information

No object selected

SQL File 1*

Limit to 1000 rows

```
4      author_id INT AUTO_INCREMENT PRIMARY KEY,
5      author_name VARCHAR(255) NOT NULL
6  );
7
8  • create table genre(
9      genre_id int auto_increment primary key,
10     genre_name varchar(255)
11 );
12
13 • create table books(
14     book_id int auto_increment primary key,
15     title varchar(255),
16     publication_year year,
17     author_id int,
18     genre_id int,
19     foreign key (author_id) references authors(author_id),
20     foreign key (genre_id) references genre(genre_id)
21 );
22
23 • create table users(
24     user_id int auto_increment primary key,
25     username varchar(255),
26     email varchar(255)
27 );
```

1f create a table borrowed books

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

librarymanagement

- Tables
 - authors
 - books
 - borrowed_books
- Columns
 - borrow_id
 - book_id
 - user_id
 - borrow_date
 - return_date
- Indexes
- Foreign Keys
- Triggers
- genre
- users
- Views
- Stored Procedures
- Functions

mydb

sys

Administration Schemas

Information

No object selected

SQL File 1*

Limit to 1000 rows

```
14 book_id int auto_increment primary key,
15 title varchar(255),
16 publication_year year,
17 author_id int,
18 genre_id int,
19 foreign key (author_id) references authors(author_id),
20 foreign key (genre_id) references genre(genre_id)
21 );
22
23 • create table users(
24     user_id int auto_increment primary key,
25     username varchar(255),
26     email varchar(255)
27 );
28
29 • create table borrowed_books(
30     borrow_id int auto_increment primary key,
31     book_id int,
32     user_id int,
33     borrow_date date not null,
34     return_date date,
35     foreign key (book_id) references books(book_id),
36     foreign key (user_id) references users(user_id)
37 );
```

2 insert into tables

MySQL Workbench

MySQL Model x Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator: SQL File 1*

Limit to 1000 rows

SCHEMAS

Filter objects

librarymanagement

- Tables
 - authors
 - books
 - borrowed_books
 - Columns
 - borrow_id
 - book_id
 - user_id
 - borrow_date
 - return_date
- Indexes
- Foreign Keys
- Triggers
- genre
- users
- Views
- Stored Procedures
- Functions

mydb

sys

Administration Schemas

Information

No object selected

```
35 foreign key (book_id) references books(book_id),
36 foreign key (user_id) references users(user_id)
37 );
38
39
40 • INSERT INTO authors (author_name) VALUES
41 ('Джордж Орвелл'),
42 ('Джоан Роулінг');
43
44 • INSERT INTO genres (genre_name) VALUES
45 ('Антиутопія'),
46 ('Фентезі');
47
48 • INSERT INTO users (username, email) VALUES
49 ('ivan_petrov', 'ivan@example.com'),
50 ('olena_k', 'olena@test.com');
51
52 • INSERT INTO books (title, publication_year, author_id, genre_id) VALUES
53 ('1984', 1949, 1, 1),
54 ('Гаррі Поттер і філософський камінь', 1997, 2, 2);
55
56 • INSERT INTO borrowed_books (book_id, user_id, borrow_date, return_date) VAL
57 (1, 1, '2023-10-01', '2023-10-15'),
58 (2, 2, '2023-11-05', NULL);
```