

MySQL Workshop Assignment

Problem statement: Create a database for personal library system

1. Create Database named "library"
2. Create a table "user" with columns id and username
3. Create a table book with columns id, name, user_id (owner of the book) and currently_with, borrowed_on

Expand on the tables created earlier by also including the address details of users -

- Address
- Street
- City
- State
- Country
- PIN Code

Implement various queries using MySQLi and PDO.

Only two users will have addresses. And then answer the following questions.

- Check if the database is available
- Check if the table is available
- Check what columns the table has
- Find out the number of books
- List out the books in the descending order of their names
- Find the books that have the word Beginning in them
- Change the name of one of the users
- List out the users and their address, for only the users that have an address
- List out the users and their address, for only the users that have an address. Display street as <not available> if it's value is null in the database
- List out the users and their address, irrespective of whether a user has an address or not
- Get the cities that users live in
- Find the users who have lent out more than 1 book
- Find the user who has the largest pin code
- Add an additional column to address for landmark
- Attempt to add a user with the same name as an existing user (it should fail given that unique constraint has been added)
- Add one more column "created_on" of type datetime in user table
- Write a query to find out all users who are registered since more than 30 days
- Modify useraddress table to make userid as a foreign key to user table
- Try to delete a user for which address is available (it should give an error)
- Add a ON DELETE CASCADE constraint on the foreign key
- Try to delete a user for which address is available (it should also delete the address)
- Show some predefined value if a particular column contains NULL
- List users who have borrowed a book since more than a week