Assignment 4: Write SQL statements to CREATE a new database and tables that reflect the library schema you designed earlier. Use ALTER statements to modify the table structures and DROP statements to remove a redundant table.

Ans:

Step1:

CREATE TABLE Books (

   BookID INT AUTO_INCREMENT PRIMARY KEY,

   Title VARCHAR(255) NOT NULL,

   Author VARCHAR(255) NOT NULL,

   ISBN VARCHAR(20) NOT NULL UNIQUE

   );

   INSERT INTO Books (Title, Author, ISBN) VALUES

('1984', 'George Orwell', '9780451524935'),

('To Kill a Mockingbird', 'Harper Lee', '9780061120084'),

('Pride and Prejudice', 'Jane Austen', '9781503290563');

   drop table books;

   CREATE TABLE Borrowers (

   BorrowerID INT AUTO_INCREMENT PRIMARY KEY,

   FirstName VARCHAR(255) NOT NULL,

   LastName VARCHAR(255) NOT NULL,

   Email VARCHAR(255) UNIQUE,

   PhoneNumber VARCHAR(15),

   RegistrationDate DATE NOT NULL

```sql
);

INSERT INTO Borrowers (FirstName, LastName, Email, PhoneNumber, RegistrationDate) VALUES
('John', 'Doe', 'john.doe@example.com', '1234567890', '2022-01-01'),
('Jane', 'Smith', 'jane.smith@example.com', '0987654321', '2022-02-15'),
('Emily', 'Johnson', 'emily.j@example.com', '1122334455', '2022-03-20');

CREATE TABLE Loans (
    LoanID INT AUTO_INCREMENT PRIMARY KEY,
    BookID INT NOT NULL,
    BorrowerID INT NOT NULL,

    FOREIGN KEY (BookID) REFERENCES Books(BookID),
    FOREIGN KEY (BorrowerID) REFERENCES Borrowers(BorrowerID)
);
INSERT INTO Loans (BookID, BorrowerID) VALUES
(1, 1 ),
(2, 2 ),
(1, 3 );
```
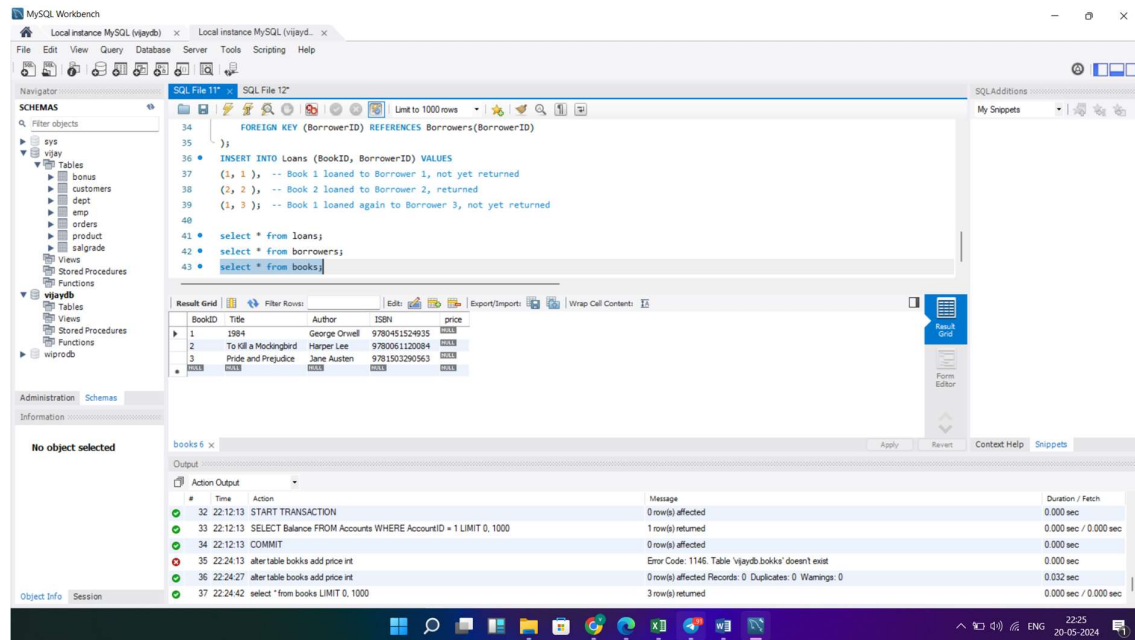
Step2:

Alter statement use

For add one extra column in table

For rename the column name

Step4 :

Use of drop command

Drop table xyz;

Local instance MySQL (vijaydb) ×   Local instance MySQL (vijayd... ×

File   Edit   View   Query   Database   Server   Tools   Scripting   Help

Navigator

SCHEMAS

Filter objects

- sys
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Administration   Schemas

Information

No object selected

Object Info   Session

SQL File 11* ×   SQL File 12*

Limit to 1000 rows

```sql
27
28  CREATE TABLE Loans (
29      LoanID INT AUTO_INCREMENT PRIMARY KEY,
30      BookID INT NOT NULL,
31      BorrowerID INT NOT NULL,
32
33      FOREIGN KEY (BookID) REFERENCES Books(BookID),
34      FOREIGN KEY (BorrowerID) REFERENCES Borrowers(BorrowerID)
35  );
36  INSERT INTO Loans (BookID, BorrowerID) VALUES
37  (1, 1 ),  -- Book 1 loaned to Borrower 1, not yet returned
38  (2, 2 ),  -- Book 2 loaned to Borrower 2, returned
39  (1, 3 );  -- Book 1 loaned again to Borrower 3, not yet returned
40  create table xyz(nu int, mobailno bigint);
41  select * from loans;
42  select * from borrowers;
43  select * from books;
44  alter table books add price int;
45
46  drop table xyz;
```

SQLAdditions

My Snippets

Context Help   Snippets

Output

Action Output

#	Time	Action	Message	Duration / Fetch
35	22:24:13	alter table bokks add price int	Error Code: 1146. Table 'vijaydb.bokks' doesn't exist	0.000 sec
36	22:24:27	alter table books add price int	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0	0.032 sec
37	22:24:42	select * from books LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
38	22:28:23	drop table books	Error Code: 3730. Cannot drop table 'books' referenced by a foreign key constraint 'loans_ibfk_1' on table 'loans'.	0.000 sec
39	22:29:38	create table xyz(nu int, mobailno bigint)	0 row(s) affected	0.032 sec
40	22:30:37	drop table xyz	0 row(s) affected	0.031 sec

22:30
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ENG