create database LBMS;

use lbms;

CREATE TABLE students

(student\_id int primary key,

name varchar(30) not null,

email varchar(40) not null unique,

department varchar(50),

gender varchar(10) default'm');

select\*from students;

create table books(

book\_id int primary key,

title varchar(50) not null,

author varchar(50) not null);

select\*from books;

alter table books add (category varchar(50), available\_copies varchar(100));

create table librarians(

librarian\_id int primary key,

name varchar(20) not null,

experience\_years int);

select\*from librarians;

create table borrow(

borrow\_id int primary key,

student\_id int,foreign key (student\_id) references students(student\_id),

book\_id int,foreign key (book\_id) references books(book\_id),

librarian\_id int,foreign key (librarian\_id) references librarians (librarian\_id),

borrow\_date varchar(50),

return\_date varchar(100));

select\*from borrow;

insert into students values

(01,'balaji','balaji1456@gamil .com','cse','m'),

(02,'sivaji','sivajii1756@gamil .com','bcom','m'),

(03,'nivas','nivas6969@gamil .com','cs','m'),

(04,'anbu','anbu7868@gamil .com','eco','m');

select\*from students;

insert into books values(001,'it starts with us','hooven','romance','5'),

(002,'it end with us','justin','fiction','7'),

(003,'sunset','xavier','life','10'),

(004,'door of the night','frank','thriller','14');

select\*from books;

insert into librarians values(77,'bala',5),(88,'samy',7),(99,'raja',6),(90,'murugan',2),(23,'ram',8);

select\*from librarians;

insert into borrow values

(215,01,001,77,2025-10-10,'2025-08-17'),

(216,02,002,88,2025-10-10,'2025-07-10'),

(217,03,003,99,2025-10-10,'2025-08-10'),

(218,04,004,90,2025-10-10,'2025-07-30'),

(219,04,004,77,2025-10-10,'2025-07-30'),

(220,03,001,88,2025-10-10,'2025-07-30'),

(221,02,001,99,2025-10-10,'2025-07-30'),

(222,01,001,90,2025-10-10,'2025-07-30');

select\*from borrow;

select student\_id,count(book\_id)from borrow group by student\_id;

select librarian\_id,count(borrow\_id)from borrow group by librarian\_id;

select student\_id,book\_id from borrow;

update books set available\_copies=8 where book\_id=001;

delete from borrow where borrow\_id=215;

select\*from students;

select borrow.student\_id,books.title

from borrow

join books on borrow.book\_id=books.book\_id;

select borrow.borrow\_id,borrow.book\_id,librarians.name

from borrow

join librarians on borrow.librarian\_id=librarians.librarian\_id;

select\*from borrow

join students

on borrow.student\_id=students.student\_id where students.student\_id=01;

select student\_id,count(book\_id) as total\_books\_borrowed from borrow group by student\_id;

select books.title,count(borrow.book\_id)

from borrow

join books on books.book\_id=borrow.book\_id

group by books.title order by max(borrow.book\_id);

select avg(experience\_years) from librarians;

select count(student\_id) from students;

select min(borrow\_date),max(borrow\_date),books.title

from borrow

join books on books.book\_id=borrow.book\_id

where books.book\_id=002;