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**PROGRAM 8: STUDENT ENROLLMENT DATABASE**

TABLES:

CREATE DATABASE student\_enroll;

USE student\_enroll;

CREATE TABLE student(

regno VARCHAR(15),

name VARCHAR(20),

major VARCHAR(20),

bdate DATE,

PRIMARY KEY (regno));

DESC student;

CREATE TABLE course(

courseno INT,

cname VARCHAR(20),

dept VARCHAR(20),

PRIMARY KEY (courseno));

DESC course;

CREATE TABLE enroll(

regno VARCHAR(15),

courseno INT,

sem INT,

marks INT,

PRIMARY KEY (regno,courseno),

FOREIGN KEY (regno) REFERENCES student(regno),

FOREIGN KEY (courseno) REFERENCES course(courseno));

DESC enroll;

CREATE TABLE textbook(

book\_isbn INT,

book\_title VARCHAR(20),

publisher VARCHAR(20),

author VARCHAR(20),

PRIMARY KEY (book\_isbn));

DESC textbook;

CREATE TABLE book\_adoption(

courseno INT,

sem INT,

book\_isbn INT,

PRIMARY KEY (courseno,book\_isbn),

FOREIGN KEY (courseno) REFERENCES course (courseno),

FOREIGN KEY (book\_isbn) REFERENCES textbook(book\_isbn));

DESC book\_adoption;

INSERT INTO student VALUES('1BM11CS001','A','Sr','19931230');

INSERT INTO student VALUES('1BM11CS002','B','Sr','19930924');

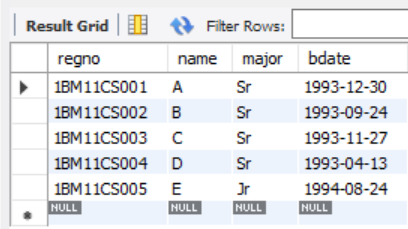
INSERT INTO student VALUES('1BM11CS003','C','Sr','19931127');

INSERT INTO student VALUES('1BM11CS004','D','Sr','19930413');

INSERT INTO student VALUES('1BM11CS005','E','Jr','19940824');

COMMIT;

SELECT \* FROM student;



INSERT INTO course VALUES(111,'OS','CSE');

INSERT INTO course VALUES(112,'EC','ECE');

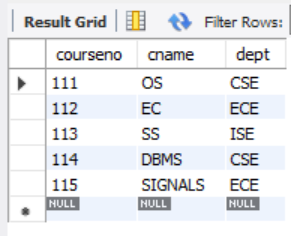
INSERT INTO course VALUES(113,'SS','ISE');

INSERT INTO course VALUES(114,'DBMS','CSE');

INSERT INTO course VALUES(115,'SIGNALS','ECE');

COMMIT;

SELECT \* FROM course;



INSERT INTO textbook VALUES(10,'DATABASE SYSTEMS','PEARSON','SCHIELD');

INSERT INTO textbook VALUES(900,'OPERATING SYSTEMS','PEARSON','LELAND');

INSERT INTO textbook VALUES(901,'CIRCUITS','HALL INDIA','BOB');

INSERT INTO textbook VALUES(902,'SYSTEM SOFTWARE','PETERSON','JACOB');

INSERT INTO textbook VALUES(903,'SCHEDULING','PEARSON','PATIL');

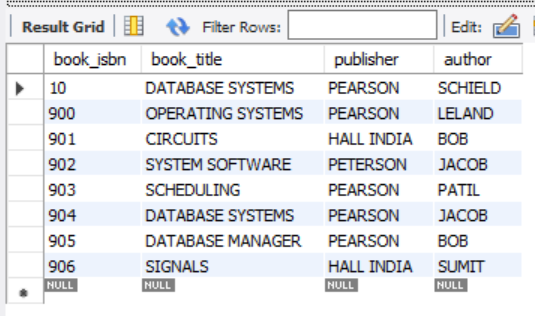
INSERT INTO textbook VALUES(904,'DATABASE SYSTEMS','PEARSON','JACOB');

INSERT INTO textbook VALUES(905,'DATABASE MANAGER','PEARSON','BOB');

INSERT INTO textbook VALUES(906,'SIGNALS','HALL INDIA','SUMIT');

COMMIT;

SELECT \* FROM textbook;



INSERT INTO enroll VALUES('1BM11CS001',115,3,100);

INSERT INTO enroll VALUES('1BM11CS002',114,5,100);

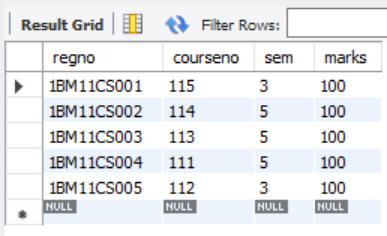
INSERT INTO enroll VALUES('1BM11CS003',113,5,100);

INSERT INTO enroll VALUES('1BM11CS004',111,5,100);

INSERT INTO enroll VALUES('1BM11CS005',112,3,100);

COMMIT;

SELECT \* FROM enroll;



INSERT INTO book\_adoption VALUES(111,5,900);

INSERT INTO book\_adoption VALUES(111,5,903);

INSERT INTO book\_adoption VALUES(111,5,904);

INSERT INTO book\_adoption VALUES(112,3,901);

INSERT INTO book\_adoption VALUES(113,3,10);

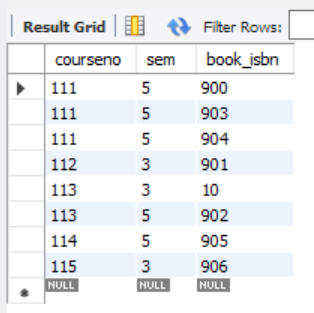
INSERT INTO book\_adoption VALUES(114,5,905);

INSERT INTO book\_adoption VALUES(113,5,902);

INSERT INTO book\_adoption VALUES(115,3,906);

COMMIT;

SELECT \* FROM book\_adoption;



QUERIES:

1. Demonstrate how you add a new text book to the database and make this book be adopted by some department.

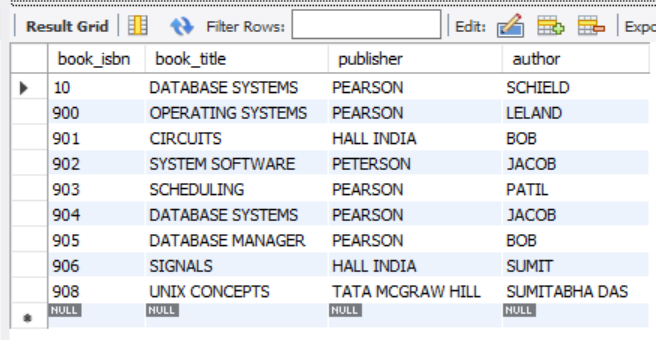
INSERT INTO textbook VALUES(908,'UNIX CONCEPTS','TATA MCGRAW HILL','SUMITABHA DAS');

INSERT INTO book\_adoption VALUES(113,4,908);

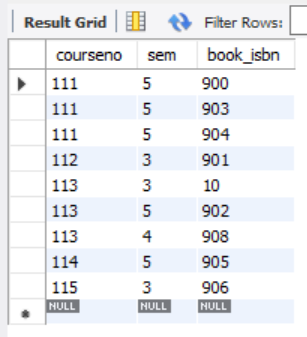
SELECT \* FROM textbook;

SELECT \* FROM book\_adoption;

textbook table:



book\_adoption table:



1. Produce a list of text books (include Course #, Book-ISBN, Book-title) in the alphabetical order for courses offered by the ‘CS’ department that use more than two books.

SELECT c.courseno,t.book\_isbn,t.book\_title

FROM course c,book\_adoption ba,textbook t

WHERE c.courseno=ba.courseno

AND ba.book\_isbn=t.book\_isbn

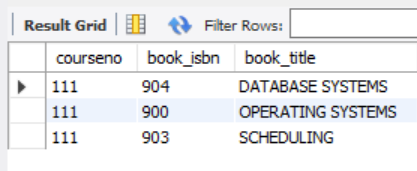
AND c.dept='CSE'

AND 2<(SELECT COUNT(book\_isbn)

FROM book\_adoption b

WHERE c.courseno=b.courseno)

ORDER BY t.book\_title;



1. List any department that has all its adopted books published by a specific publisher.

SELECT DISTINCT c.dept

FROM course c

WHERE c.dept IN

(SELECT c.dept

FROM course c,book\_adoption b,textbook t

WHERE c.courseno=b.courseno

AND t.book\_isbn=b.book\_isbn

AND t.publisher='PEARSON')

AND c.dept NOT IN

(SELECT c.dept

FROM course c,book\_adoption b,textbook t

WHERE c.courseno=b.courseno

AND t.book\_isbn=b.book\_isbn

AND t.publisher != 'PEARSON');

