LAB-8: Student Enrollment Database

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```
create database student_enrollment;
use student_enrollment;

CREATE TABLE student(
regno VARCHAR(15),
name VARCHAR(20),
major VARCHAR(20),
bdate DATE,
    PRIMARY KEY (regno) );

CREATE TABLE course(
courseno INT,
cname VARCHAR(20),
dept VARCHAR(20),
    PRIMARY KEY (courseno) );


CREATE TABLE enroll(
regno VARCHAR(15),
courseno INT,
sem INT(3),
marks INT(4),
    PRIMARY KEY (regno,courseno),
    FOREIGN KEY(regno) REFERENCES student(regno),
    FOREIGN KEY(courseno) REFERENCES course(courseno) );


CREATE TABLE text(
book_isbn INT(5),
book_title VARCHAR(20),
publisher VARCHAR(20),
author VARCHAR(20),
    PRIMARY KEY (book_isbn) );


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 text(book_isbn) );

show tables;

INSERT INTO student (regno,name,major,bdate) VALUES
            ('1bm19cs001','a','sr','19930929'),
    ('1bm19cs002','b','sr','19930924'),
```

```
('1bm19cs003','c','sr','19931127'),
('1bm19cs004','d','sr','19930413'),
('1bm19cs005','e','jr','19940824');
select * from student;
```

```
INSERT INTO student (regno,name,major,bdate) VALUES
    ('1bm19cs001','a','sr','19930929'),
    ('1bm19cs002','b','sr','19930924'),
    ('1bm19cs003','c','sr','19931127'),
    ('1bm19cs004','d','sr','19930413'),
    ('1bm19cs005','e','jr','19940824');
select * from student;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

regno	name	major	bdate
1bm19cs001	a	sr	1993-09-29
1bm19cs002	b	sr	1993-09-24
1bm19cs003	c	sr	1993-11-27
1bm19cs004	d	sr	1993-04-13
1bm19cs005	e	jr	1994-08-24
NULL	NULL	NULL	NULL

```
INSERT INTO course VALUES (111,'OS','CSE'),
    (112,'EC','CSE'),
    (113,'SS','ISE'),
    (114,'DBMS','CSE'),
    (115,'SIGNALS','ECE');
    select * from course;
```

```
INSERT INTO course VALUES (111,'OS','CSE'),
    (112,'EC','CSE'),
    (113,'SS','ISE'),
    (114,'DBMS','CSE'),
    (115,'SIGNALS','ECE');
    select * from course;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

courseno	cname	dept
111	OS	CSE
112	EC	CSE
113	SS	ISE
114	DBMS	CSE
115	SIGNALS	ECE
NULL	NULL	NULL

```
INSERT INTO text (book_isbn,book_title,publisher,author)VALUES
    (10,'DATABASE SYSTEMS','PEARSON','SCHIELD'),
    (900,'OPERATING SYS','PEARSON','LELAND'),
    (901,'CIRCUITS','HALL INDIA','BOB'),
    (902,'SYSTEM SOFTWARE','PETERSON','JACOB'),
    (903,'SCHEDULING','PEARSON','PATIL'),
    (904,'DATABASE SYSTEMS','PEARSON','JACOB'),
    (905,'DATABASE MANAGER','PEARSON','BOB'),
```

(906,'SIGNALS','HALL INDIA','SUMIT');
select * from text;

```
61          (10,'DATABASE SYSTEMS','PEARSON','SCHIELD'),
62          (900,'OPERATING SYS','PEARSON','LELAND'),
63          (901,'CIRCUITS','HALL INDIA','BOB'),
64          (902,'SYSTEM SOFTWARE','PETERSON','JACOB'),
65          (903,'SCHEDULING','PEARSON','PATIL'),
66          (904,'DATABASE SYSTEMS','PEARSON','JACOB'),
67          (905,'DATABASE MANAGER','PEARSON','BOB'),
68          (906,'SIGNALS','HALL INDIA','SUMIT');
69 •  select * from text;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

book_isbn	book_title	publisher	author
10	DATABASE SYSTEMS	PEARSON	SCHIELD
900	OPERATING SYS	PEARSON	LELAND
901	CIRCUITS	HALL INDIA	BOB
902	SYSTEM SOFTWARE	PETERSON	JACOB
903	SCHEDULING	PEARSON	PATIL
904	DATABASE SYSTEMS	PEARSON	JACOB
905	DATABASE MANAGER	PEARSON	BOB
906	SIGNALS	HALL INDIA	SUMIT
NULL	NULL	NULL	NULL

text 12 | Apply | Revert

INSERT INTO enroll (regno,courseno,sem,marks)VALUES
('1bm19cs001',115,3,100),
('1bm19cs002',114,5,100),
('1bm19cs003',113,5,100),
('1bm19cs004',111,5,100),
('1bm19cs005',112,3,100);
select * from enroll;

```
70
71 •  INSERT INTO enroll (regno,courseno,sem,marks)VALUES
72          ('1bm19cs001',115,3,100),
73          ('1bm19cs002',114,5,100),
74          ('1bm19cs003',113,5,100),
75          ('1bm19cs004',111,5,100),
76          ('1bm19cs005',112,3,100);
77 •  select * from enroll;
78
```

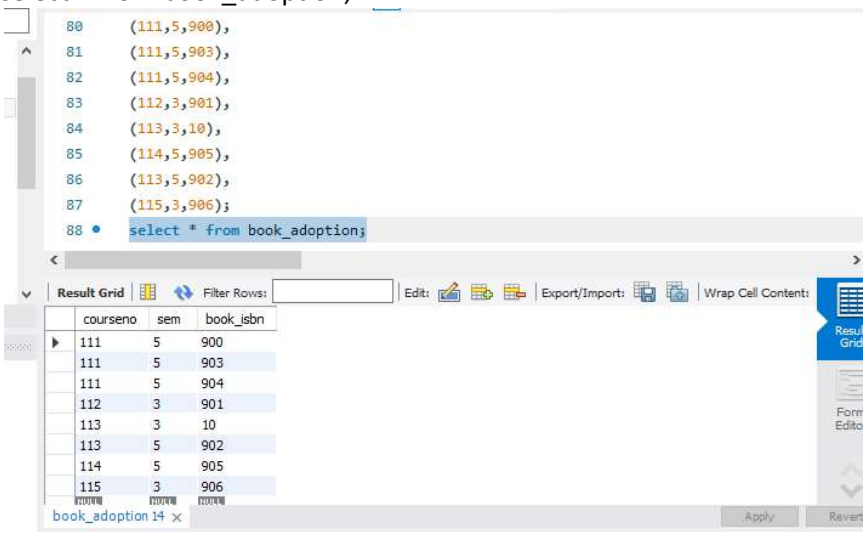
Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

regno	courseno	sem	marks
1bm19cs001	115	3	100
1bm19cs002	114	5	100
1bm19cs003	113	5	100
1bm19cs004	111	5	100
1bm19cs005	112	3	100
NULL	NULL	NULL	NULL

enroll 13 | Apply | Revert

INSERT INTO book_adoption (courseno,sem,book_isbn) VALUES
(111,5,900),
(111,5,903),
(111,5,904),
(112,3,901),
(113,3,10),

(114,5,905),
(113,5,902),
(115,3,906);
select * from book_adoption;

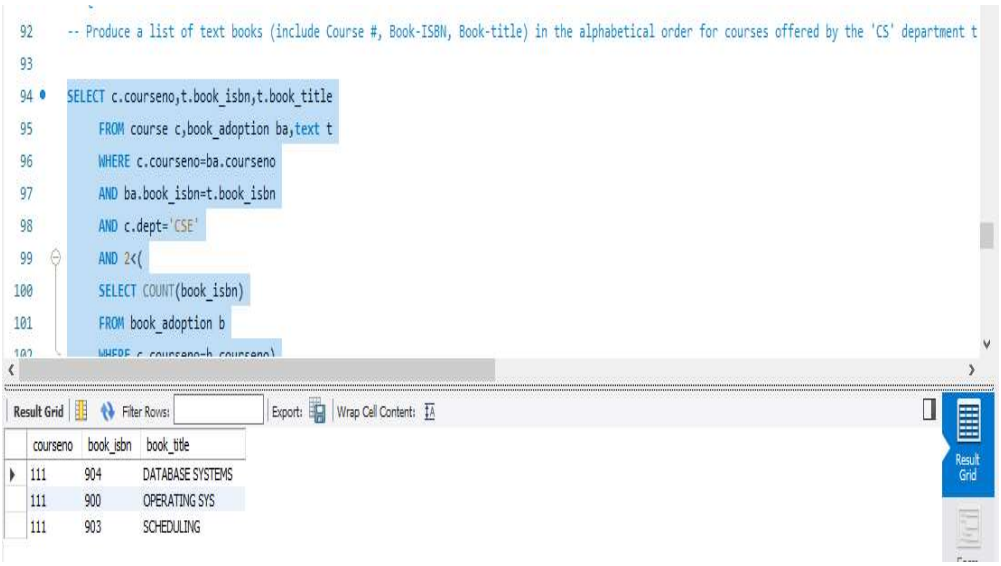


-- Queries:

-- query 1:
insert into text values (907,'ai','hall india','sumit');
insert into book_adoption values(115, 2, 907);
select * from text;
select * from book_adoption;

-- 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,text 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;
```



-- 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,text t
    where c.courseno=b.courseno
    and t.book_isbn=b.book_isbn
    and t.publisher='hall india')
    and c.dept not in
    (select c.dept
    from course c,book_adoption b,text t
    where c.courseno=b.courseno
    and t.book_isbn=b.book_isbn
    and t.publisher != 'hall india');
```