

MAHANTESH GATTINA~ 1BM19CS219

Student enrollemet database:

```
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(3),  
  book_isbn INT(5),  
  PRIMARY KEY (courseno,book_isbn),  
  FOREIGN KEY (courseno) REFERENCES course (courseno),  
  FOREIGN KEY (book_isbn) REFERENCES text(book_isbn) );  
INSERT INTO student (regno,name,major,bdate) VALUES  
( '1pe11cs002','b','sr','19930924'),  
( '1pe11cs003','c','sr','19931127'),  
( '1pe11cs004','d','sr','19930413'),  
( '1pe11cs005','e','jr','19940824');  
INSERT INTO course VALUES (111,'OS','CSE'),  
(112,'EC','CSE'),  
(113,'SS','ISE'),
```

```

(114,'DBMS','CSE'),
(115,'SIGNALS','ECE');
INSERT INTO text VALUES (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');

```

```

INSERT INTO enroll (regno,courseno,sem,marks) VALUES
('lpe11cs002',114,5,100),
('lpe11cs003',113,5,100),
('lpe11cs004',111,5,100),
('lpe11cs005',112,3,100);

```

```

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);

```

iv. 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

```

```
courseno  book_isbn  book_title
111904 DATABASE SYSTEMS
111900 OPERATING SYS
111903 SCHEDULING
```

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

```
INSERT INTO text
VALUES
(11,'DATABASE SYSTEMS','GRB','SCHIELD');
INSERT INTO book_adoption (courseno,sem,book_isbn) VALUES
(111,5,11);
```

v. 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')
```

ECE