

ISHIKA SINGHAL
IBM19CS064
DBMS LAB-1

CREATE DATABASE student_enrollment;

USE student_enrollment;

CREATE TABLE student(
reg-no VARCHAR(10) PRIMARY KEY,
name VARCHAR(20),
major VARCHAR(10),
bdate date
);

CREATE TABLE course(
course-no INT PRIMARY KEY,
cname VARCHAR(20),
dept VARCHAR(20)
);

CREATE TABLE enroll(
reg-no VARCHAR(20)
course-no INT,
marks INT,
sem INT,
FOREIGN KEY (reg-no) REFERENCES students(reg-no)
ON DELETE CASCADE ON UPDATE CASCADE,
FOREIGN KEY (course-no) REFERENCES course(course-no)
ON DELETE CASCADE ON UPDATE CASCADE
);

CREATE TABLE text(
book-isbn INT PRIMARY KEY,
book-title VARCHAR(20),
publisher VARCHAR(20),
author VARCHAR(20).
);

CREATE TABLE book_adoption (

course_no INT,

sem INT,

book_isbn INT,

FOREIGN KEY (course_no) REFERENCES course (course_no)

ON DELETE CASCADE ON UPDATE CASCADE,

FOREIGN KEY (book_isbn) REFERENCES (book_isbn)

ON DELETE CASCADE ON UPDATE CASCADE

);

INSERT INTO student VALUES ('CS01', 'RAM', 'DS', '1986-03-12');
INSERT INTO student VALUES ('IS02', 'SMITH', 'USP', '1987-12-23');
INSERT INTO student VALUES ('EC03', 'AHMED', 'SNS', '1985-04-17');
INSERT INTO student VALUES ('CS03', 'SNEHA', 'DBMS', '1987-01-01');
INSERT INTO student VALUES ('TC05', 'AKHILA', 'EC', '1986-10-06');

INSERT INTO course VALUES (11, 'DS', 'CS');

INSERT INTO course VALUES (22, 'USP', 'IS');

INSERT INTO course VALUES (33, 'SNS', 'EC');

INSERT INTO course VALUES (44, 'DBMS', 'CS');

INSERT INTO course VALUES (55, 'EC', 'TC');

INSERT INTO enroll VALUES ('CS01', 11, 4, 85);

INSERT INTO enroll VALUES ('IS02', 22, 6, 80);

INSERT INTO enroll VALUES ('EC03', 33, 2, 80);

INSERT INTO enroll VALUES ('CS03', 44, 6, 75);

INSERT INTO enroll VALUES ('TC05', 55, 2, 8);


```

INSERT INTO text VALUES (1, 'DS and C', 'Princeton', 'Reddy');
INSERT INTO text VALUES (2, 'Fundamentals of DS', 'Princeton', 'Shankha');
INSERT INTO text VALUES (3, 'Fundamentals of DBMS', 'Princeton', 'Robin');
INSERT INTO text VALUES (4, 'SQL', 'Princeton', 'Lotam');
INSERT INTO text VALUES (5, 'Electronic Circuits', 'TMH', 'Jyoti');
INSERT INTO text VALUES (6, 'Adv Unix prog', 'TMH', 'Baveja');

```

```

INSERT INTO book_adoption VALUES (11, 4, 1);
INSERT INTO book_adoption VALUES (11, 4, 2);
INSERT INTO book_adoption VALUES (44, 6, 3);
INSERT INTO book_adoption VALUES (44, 6, 4);
INSERT INTO book_adoption VALUES (55, 2, 5);

```

/* QUERY 1 */

```

INSERT INTO text VALUES (7, 'Linear algebra', 'Pearson', 'Narayana');
INSERT INTO text_course VALUES (77, 'LA', 'CS');
INSERT INTO book_adoption VALUES (77, 4, 7);
SELECT * FROM book_adoption;

```

/* QUERY 2 */

```

SELECT c.course_no, c.name FROM course c, text t, book_adoption b
WHERE c.course_no = b.course_no
AND
b.book_isbn = t.book_isbn
AND
c.dept = 'CS'
GROUP BY c.course_no
HAVING COUNT (b.course_no) >= 2
ORDER BY t.book_title;

```


/* QUERY 3 */

```
SELECT c.course_no, c.dept, b.book_isbn, t.publisher
FROM course c, book-adoption b, text t
WHERE c.course_no = b.course_no
AND
b.book_isbn = t.book_isbn
AND
t.publisher = 'Princeton';
```

/* QUERY 4 */

```
CREATE view publisher as
SELECT c.name, b.book_isbn, t.publisher from book-adoption b
inner join course c
on c.course_no = b.course_no
inner join text t
on t.book_isbn = b.book_isbn;
```

/* QUERY 5 */

```
SELECT c.name from book-adoption b
inner join course c
on c.course_no = b.course_no
inner join text t
on t.book_isbn = b.book_isbn
WHERE t.publisher = "springer";
```