

1.

student 릴레이션

<u>id</u> CHAR(8)	name VARCHAR(20)	semester INT	year INT
20190101	가나다	3	2
20190102	나한가	2	1
20190103	나두야	2	1
20200101	가운데	1	1
20200102	김한나	1	1
20200103	유명한	1	1

Course 릴레이션

<u>id</u> CHAR(8)	name VARCHAR(20)	unit INT	professor VARCHAR(20)
S01	데이터베이스	3	최교수
S02	국어	2	강교수
S03	영어	2	James
S04	자바	3	최교수
S05	수학	2	수학교수

register 릴레이션

st-id CHAR(8)	co-id CHAR(8)	regtime DATETIME
20200102	S01	2020-11-17 14:00:01
20200102	S02	2020-11-17 14:00:02
20200102	S03	2020-11-17 14:00:03

2.

```
CREATE DATABASE dgu;
```

3.

```
CREATE TABLE student
```

```
(id CHAR(8), name VARCHAR(20), semester INT, PRIMARY KEY(id));
```

```
CREATE TABLE course
```

```
(id CHAR(8), name VARCHAR(40), unit INT, professor VARCHAR(20), PRIMARY KEY(id));
```

```
CREATE TABLE register
```

```
(st_id CHAR(8), co_id CHAR(8), regtime DATETIME);
```

4.

```
INSERT INTO student VALUES
```

```
('20190101', '가나다', 3),
```

```
('20190102', '나한가', 2),
```

```
('20190103', '나두야', 2),
```

```
('20200101', '가운데', 1),
```

```
('20200102', '김한나', 1),
```

```
('20200103', '유명한', 1);
```

```
INSERT INTO student VALUES
```

```
('20200104', '박세연', 1);
```

5.

```
INSERT INTO course VALUES
```

```
('S01', '데이터베이스', 3, '최교수'),
```

```
('S02', '국어', 2, '강교수'),
```

```
('S03', '영어', 2, 'James'),
```

```
('S04', '자바', 3, '최교수'),
```

```
('S05', '수학', 2, '수학교수');
```

```
INSERT INTO course VALUES
```

```
('S06', '체육', 3, '박선생');
```

6.

```
INSERT INTO register
```

```
(SELECT st.id, co.id, NOW() FROM student st, course co WHERE  
st.name = '김한나' AND co.name = '데이터베이스');
```

8.

```
INSERT INTO register
```

```
(SELECT st.id, co.id, NOW() FROM student st, course co WHERE  
st.name = '김한나' AND (co.name = '국어' OR co.name = '영어'));
```

10.

```
INSERT INTO register VALUES
```

```
('20200103', 'S05', NOW()),
```

```
('20200103', 'S01', NOW());
```

11.

```
SELECT co.name as 교과목, co.unit as 학점, co.professor as 교수  
FROM course co, student st, register re  
WHERE st.name = '김한나' AND st.id = re.st_id AND co.id = re.co_id  
ORDER BY co.name;
```

12.

```
SELECT st.name AS 학생이름, COUNT(*) AS 과목수, SUM(co.unit) AS 총학점수  
FROM student st, course co, register re  
WHERE st.id = re.st_id AND co.id = re.co_id  
GROUP BY st.name;
```

13.

```
DELETE  
FROM register  
WHERE st_id = (SELECT id  
                FROM student  
                WHERE name = '김한나')  
AND co_id = (SELECT id  
              FROM course  
              WHERE name = '국어');
```

14.

```
UPDATE student  
SET semester = semester + 1  
WHERE id IN (SELECT DISTINCT st_id FROM register);
```

15.

```
DELETE  
FROM register  
WHERE co_id = (SELECT co_id  
                FROM register  
                GROUP BY co_id having count(*)<5);
```