MySQL 실습 코드

- 데이터베이스 생성

```
DROP DATABASE IF EXISTS company;
CREATE DATABASE IF NOT EXISTS company;
USE company;
```

- 테이블 생성

```
DROP TABLE IF EXISTS    employee,
                        department,
                        dept_locations,
                        works_on,
                        project,
                        dependent;

CREATE TABLE employee (
Fname       VARCHAR(15)       NOT NULL,
Minit       CHAR(1)           NOT NULL,
Lname       VARCHAR(15)       NOT NULL,
Ssn         CHAR(9)           NOT NULL,
Bdate       DATE              NOT NULL,
Addreess    VARCHAR(40)       NOT NULL,
Sex         CHAR(1)           NOT NULL,
Salary      INT               NOT NULL,
Super_ssn   CHAR(9),
Dno         INT               NOT NULL,
PRIMARY KEY (Ssn)
);

CREATE TABLE department(
Dname          VARCHAR(15)          NOT NULL,
Dnumber        INT                  NOT NULL,
Mgr_ssn        CHAR(9)              NOT NULL,
Mgr_start_date DATE                 NOT NULL,
PRIMARY KEY (Dnumber),
UNIQUE KEY (Dname)
);

CREATE TABLE dept_locations (
Dnumber     INT               NOT NULL,
Dlocation   VARCHAR(15)       NOT NULL,
PRIMARY KEY (Dnumber, Dlocation)
);
```

```
CREATE TABLE works_on (
Essn        CHAR(9)           NOT NULL,
Pno         INT               NOT NULL,
Hours       FLOAT             NOT NULL,
PRIMARY KEY (Essn, Pno)
);

CREATE TABLE project (
      Pname       CHAR(15)    NOT NULL,
      Pnumber     INT         NOT NULL,
      Plocation   CHAR(15)    NOT NULL,
      Dnum        INT         NOT NULL,
      PRIMARY KEY (Pnumber),
      UNIQUE KEY (Pname)
);

CREATE TABLE dependent (
      Essn              CHAR(9)           NOT NULL,
      Dependent_name    VARCHAR(15)       NOT NULL,
      Sex               CHAR(1)           NOT NULL,
      Bdate             DATE              NOT NULL,
      Relationship      CHAR(15)          NOT NULL,
      PRIMARY KEY (Essn, Dependent_name)
);
```

- 데이터 입력
- 한줄 삽입

```
INSERT INTO employee
VALUES ('John', 'B', 'Smith', '123456789', '1965-01-09', '731 Fondren,
Houston, TX', 'M', 30000, '333445555', 5);
```

- 여러줄 삽입
- load_employee.dump

```
SELECT 'LOADING employees' as 'INFO';
source load_employee.dump ;
```

- 외래키 추가

```
ALTER TABLE employee
ADD CONSTRAINT FOREIGN KEY (Super_ssn) REFERENCES employee (Ssn) ON
DELETE CASCADE,
ADD FOREIGN KEY (Dno) REFERENCES department (Dnumber) ON DELETE CASCADE;
```

```
ALTER TABLE department
ADD FOREIGN KEY (Mgr_ssn) REFERENCES employee (Ssn) ON DELETE CASCADE;

ALTER TABLE dep_locations
ADD FOREIGN KEY (Dnumber) REFERENCES department (Dnumber) ON DELETE
CASCADE;

ALTER TABLE works_on
ADD FOREIGN KEY (Essn) REFERENCES employee (Ssn) ON DELETE CASCADE,
ADD FOREIGN KEY (Pno) REFERENCES project (Pnumber) ON DELETE CASCADE;

ALTER table project
ADD FOREIGN KEY (Dnum) REFERENCES department (Dnumber) ON DELETE
CASCADE;

ALTER TABLE dependent
ADD FOREIGN KEY (Essn) REFERENCES employee (Ssn) ON DELETE CASCADE;
```

- 외래키 이름 확인

```
SELECT * FROM information_schema.table_constraints;
```

- 외래키 삭제

```
ALTER TABLE employee
DROP FOREIGN KEY employee_ibfk_1,
DROP FOREIGN KEY employee_ibfk_2;

ALTER TABLE department
DROP FOREIGN KEY department_ibfk_1;

ALTER TABLE dep_locations
DROP FOREIGN KEY dep_locations_ibfk_1;

ALTER TABLE project
DROP FOREIGN KEY project_ibfk_1;

ALTER TABLE works_on
DROP FOREIGN KEY works_on_ibfk_1,
DROP FOREIGN KEY works_on_ibfk_2;

ALTER TABLE dependent
DROP FOREIGN KEY dependent_ibfk_1;
```

- check 를 사용하여 제약 조건 명시: create table 시나 alter table 을 통해 설정 가능

```
ALTER TABLE employee
MODIFY COLUMN Sex CHAR(1) NOT NULL CHECK (Sex IN ('F', 'M'));

ALTER TABLE dependent
MODIFY COLUMN Sex CHAR(1) NOT NULL CHECK (Sex IN ('F', 'M'));

ALTER TABLE works_on
MODIFY COLUMN Hours FLOAT NOT NULL CHECK (Hours >0);
```