USE test\_learn;

CREATE TABLE student (

student\_id INT auto\_increment,

name VARCHAR (20) NOT NULL,

subject VARCHAR (20) NOT NULL,

points INT (3) NOT NULL,

PRIMARY KEY (student\_id)

);

SELECT \* FROM student;

INSERT INTO student (name, subject, points) VALUES ('Jack', 'Biology', 84);

INSERT INTO student (name, subject, points) VALUES ('Claire', 'English', 96);

INSERT INTO student (name, subject, points) VALUES ('Martin', 'Drama', 100);

INSERT INTO student (name, subject, points) VALUES ('Anna', 'Science', 80);

INSERT INTO student (name, subject, points) VALUES ('Marta', 'Music', 98);

USE SQL\_2;

CREATE TABLE student (

std\_id INT PRIMARY KEY,

first\_name VARCHAR(40),

last\_name VARCHAR(40),

birth\_day DATE,

sex VARCHAR(1),

credit INT,

super\_id INT,

university\_id INT

);

CREATE TABLE university (

university\_id INT PRIMARY KEY,

university\_name VARCHAR(40),

mgr\_id INT,

mgr\_start\_date DATE,

FOREIGN KEY(mgr\_id) REFERENCES student(std\_id) ON DELETE SET NULL

);

ALTER TABLE student

ADD FOREIGN KEY(university\_id)

REFERENCES university(university\_id)

ON DELETE SET NULL;

ALTER TABLE student

ADD FOREIGN KEY(super\_id)

REFERENCES student(std\_id)

ON DELETE SET NULL;

INSERT INTO student VALUES(100, 'Petru', 'Marin', '1987-11-17', 'M', 25000, NULL, NULL);

INSERT INTO university VALUES(1, 'Oxford', 100, '2006-02-09');

UPDATE student

SET university\_id = 1

WHERE std\_id = 100;

INSERT INTO student VALUES(101, 'Anna', 'Steward', '1981-05-11', 'F', 11000, 100, 1);

INSERT INTO student VALUES(102, 'Martin', 'Weir', '1984-03-15', 'M', 7500, 100, NULL);

INSERT INTO university VALUES(2, 'Bristol', 102, '1992-04-06');

UPDATE student

SET university\_id = 2

WHERE std\_id = 102;

INSERT INTO student VALUES(103, 'Ava', 'Martin', '1991-06-25', 'F', 6300, 102, 2);

INSERT INTO student VALUES(104, 'Kelly', 'Rose', '1980-02-05', 'F', 5500, 102, 2);

INSERT INTO student VALUES(105, 'Stanley', 'Allen', '1998-02-19', 'M', 6900, 102, 2);

INSERT INTO student VALUES(106, 'Nick', 'Wallace', '1999-09-05', 'M', 7800, 100, NULL);

INSERT INTO university VALUES(3, 'Coventry', 106, '1998-02-13');

UPDATE student

SET university\_id = 3

WHERE std\_id = 106;

INSERT INTO student VALUES(107, 'Peter', 'Pegg', '1993-07-22', 'M', 6500, 106, 3);

INSERT INTO student VALUES(108, 'Jhon', 'Newman', '1998-10-01', 'M', 7100, 106, 3);

-- Find all students

SELECT \*

FROM student;

-- Find all students ordered by credit

SELECT \*

from student

ORDER BY credit ASC/DESC;

-- Find all students ordered by sex then name

SELECT \*

from student

ORDER BY sex, name;

-- Find the first 5 students in the table

SELECT \*

from student

LIMIT 5;

-- Find the first and last names of all students

SELECT first\_name, student.last\_name

FROM student;

-- Find all students at university 2

SELECT \*

FROM student

WHERE university\_id = 2;

-- Find all students at university 2

SELECT \*

FROM student

WHERE university\_id = 2;

-- Find the number of students

SELECT COUNT(super\_id)

FROM student;

-- Find the average of all student's salaries

SELECT AVG(credit)

FROM student;

-- % = any # characters, \_ = one character

-- Find any student born on the 10th day of the month

SELECT \*

FROM student

WHERE birth\_day LIKE '\_\_\_\_\_10%';

-- Find a list of student and university names

SELECT student.first\_name AS Student\_University\_Names

FROM student

UNION

SELECT university.university\_name

FROM university;

-- Add the extra university

INSERT INTO university VALUES(4, "Buffalo", NULL, NULL);

SELECT student.std\_id, student.first\_name, university.university\_name

FROM student

JOIN university -- LEFT JOIN, RIGHT JOIN

ON student.std\_id = university.mgr\_id;