Question 1

SELECT COUNT(\*) FROM students WHERE firstName = 'John';

Question 2

UPDATE enrollments SET year=2015 WHERE id BETWEEN 20 AND 100;

Question 3

SELECT name FROM dogs UNION SELECT name FROM cats;

Question 4

SELECT userId, AVG(duration) FROM sessions GROUP BY userId HAVING COUNT(userId)>1;

Question 5

SELECT i.name, s.name FROM items i JOIN sellers s ON i.sellerId = s.id WHERE s.rating>4;

Question 6

SELECT name FROM employees WHERE id NOT IN (SELECT emp1.id FROM employees emp1 JOIN employees emp2 ON emp1.id=emp2.managerID);

Question 7

CREATE TABLE users\_roles (

userId INTEGER NOT null,

roleId INTEGER NOT null,

foreign key (userId) references users(id),

foreign key (roleId) references roles(id),

unique (userId, roleId)

);

Question 8

SELECT region as name, sales\_amt as average,

(SELECT MAX(sales\_amt) FROM (SELECT reg.name AS region,sta.name AS states,emp.name AS emp\_name, sal.amount AS sales\_amt

FROM regions reg

JOIN states sta ON sta.regionId=reg.id

JOIN employees emp ON emp.stateId=sta.id

LEFT JOIN sales sal ON sal.employeeId=emp.id))-sales\_amt as difference

FROM (SELECT reg.name AS region,sta.name AS states,emp.name AS emp\_name, IFNULL(AVG(sal.amount),0) AS sales\_amt FROM regions reg

JOIN states sta ON sta.regionId=reg.id

JOIN employees emp ON emp.stateId=sta.id

LEFT JOIN sales sal ON sal.employeeId=emp.id GROUP BY states)