Practicum week 6

Opgave 1: Joins

1 SELECT location\_id, street\_address, city, state\_province, country\_name

FROM locations l, countries c

WHERE l.country\_id = c.country\_id;

2 SELECT last\_name, department\_id, department\_name

FROM employees JOIN departments

USING (department\_id);

3 SELECT last\_name, job\_id, d.department\_id, department\_name

FROM employees e JOIN departments d

ON e.department\_id = d.department\_id

JOIN locations l

ON d.location\_id = l.location\_id

WHERE city = 'Toronto';

4 SELECT worker.last\_name 'Employee',

worker.employee\_id 'Emp#',

manager.last\_name 'Manager',

manager.employee\_id 'Mgr#'

FROM employees worker JOIN employees manager

ON worker.manager\_id = manager.employee\_id;

5 SELECT worker.last\_name 'Employee',

worker.employee\_id 'Emp#',

manager.last\_name 'Manager',

manager.employee\_id 'Mgr#'

FROM employees worker LEFT JOIN employees manager

ON worker.manager\_id = manager.employee\_id;

6 SELECT worker.last\_name 'name',

worker.department\_id 'department',

colleague.last\_name 'colleague'

FROM employees worker LEFT JOIN employees colleague

ON worker.department\_id = colleague.department\_id

WHERE not(worker.employee\_id = colleague.employee\_id);

7 SELECT last\_name, job\_id, department\_name, salary, grade\_level

FROM employees e JOIN departments d

ON e.department\_id = d.department\_id

JOIN job\_grades

ON salary BETWEEN lowest\_sal and highest\_sal;

8 SELECT Later.last\_name, Later.hire\_date

FROM employees Davies JOIN employees Later

ON Davies.hire\_date < Later.hire\_date

WHERE Davies.last\_name = 'Davies' ;

9 SELECT worker.last\_name 'Worker' ,

worker.hire\_date ,

manager.last\_name 'Manager',

manager.hire\_date

FROM employees worker JOIN employees manager

ON worker.manager\_id = manager.employee\_id

AND worker.hire\_date > manager.hire\_date;

10 SELECT department\_name, count(\*)

FROM employees e, departments d

WHERE e.department\_id = d.department\_id

GROUP BY (department\_name)

ORDER BY department\_name;

11 SELECT job\_title, ROUND(AVG(salary)) 'Average Salary'

FROM employees e JOIN jobs j

ON e.job\_id = j.job\_id

GROUP BY (job\_title);

12 SELECT last\_name, salary -min\_salary Difference

FROM employees e JOIN jobs j

ON e.job\_id = j.job\_id;

13 SELECT last\_name, city, country\_name

FROM employees e LEFT JOIN departments d

ON e.department\_id = d.department\_id

LEFT JOIN locations l

ON d.location\_id = l.location\_id

LEFT JOIN countries c

ON l.country\_id = c.country\_id

ORDER BY city, last\_name;

14 SELECT last\_name, salary

FROM employees e LEFT JOIN jobs j

ON e.job\_id = j.job\_id

WHERE salary = min\_salary;

15 SELECT worker.last\_name

FROM employees worker LEFT JOIN employees manager

ON worker.manager\_id = manager.employee\_id

WHERE NOT worker.department\_id = manager.department\_id;

Opgave 2: Subqueries

1 SELECT last\_name, hire\_date

FROM employees

WHERE department\_id = (SELECT department\_id

FROM employees

WHERE last\_name = 'Zlotkey');

2 SELECT employee\_id, last\_name, salary

FROM employees

WHERE salary >(SELECT AVG(salary)

FROM employees)

ORDER BY salary;

3 SELECT employee\_id, last\_name

FROM employees

WHERE department\_id IN (SELECT department\_id

FROM employees

WHERE last\_name LIKE '%u%');

4 SELECT last\_name, department\_id, job\_id

FROM employees

WHERE department\_id IN (SELECT department\_id

FROM departments

WHERE location\_id = 1700);

5 SELECT last\_name, salary

FROM employees

WHERE manager\_id IN (SELECT employee\_id

FROM employees

WHERE last\_name = 'King');

6 SELECT department\_id, last\_name, job\_id

FROM employees

WHERE department\_id IN (SELECT department\_id

FROM departments

WHERE department\_name = 'Executive');

7 SELECT last\_name

FROM employees

WHERE salary > (SELECT max(salary)

FROM employees

WHERE department\_id = 60);

8 SELECT employee\_id, last\_name, salary

FROM employees

WHERE department\_id IN (SELECT department\_id

FROM employees

WHERE last\_name LIKE '%u%')

AND salary > (SELECT AVG(salary)

FROM employees);

9 SELECT first\_name, last\_name, salary

FROM employees

WHERE salary =(SELECT MIN(salary)

FROM employees);

10 SELECT first\_name, last\_name

FROM employees

WHERE hire\_date < (SELECT hire\_date

FROM employees

WHERE last\_name = 'Bell')

ORDER BY first\_name;

11 SELECT location\_id, street\_address, postal\_code, city, state\_province, country\_id

FROM locations

WHERE CHAR\_LENGTH(street\_address) = (SELECT MIN(CHAR\_LENGTH(street\_address))

FROM locations);

12 SELECT department\_name

FROM departments

WHERE department\_id in( SELECT department\_id

FROM employees

GROUP BY department\_id

HAVING AVG(salary) > 8000);

13 SELECT last\_name, salary

FROM employees

WHERE job\_id IN (SELECT job\_id

FROM jobs

WHERE job\_title LIKE '%Manager%');

14 SELECT city

FROM locations

WHERE location\_id IN (SELECT location\_id

FROM departments

WHERE department\_id IN(SELECT department\_id

FROM employees

WHERE NOT commission\_pct IS NULL));

15 SELECT job\_title

FROM jobs

WHERE CHAR\_LENGTH(job\_title) < (SELECT AVG(CHAR\_LENGTH(job\_title))

FROM jobs);