Information Systems: Labwork 6

Nghiem Thi Phuong

Nguyen Duc Tung

Labwork 6

Who have the same name as the managers of the Finance department?

```
SELECT * FROM EMPLOYEES WHERE CONCAT(FIRST_NAME, " ", LAST_NAME) IN (
    SELECT CONCAT(FIRST_NAME, " ", LAST_NAME)
    FROM EMPLOYEES JOIN DEPT_MANAGER ON EMPLOYEES.EMP_NO = DEPT_MANAGER.EMP_NO JOIN
    DEPARTMENTS ON DEPT_MANAGER.DEPT_NO = DEPARTMENTS.DEPT_NO
    WHERE DEPT_NAME = "Finance");
```

Output:

```
+--------+------------+------------+-------------+--------+------------+
| emp_no | birth_date | first_name | last_name   | gender | hire_date  |
+--------+------------+------------+-------------+--------+------------+
| 110085 | 1959-10-28 | Ebru       | Alpin       | M      | 1985-01-01 |
| 110114 | 1957-03-28 | Isamu      | Legleitner  | F      | 1985-01-14 |
+--------+------------+------------+-------------+--------+------------+
2 rows in set (0.32 sec)
```

Who in the Production department were hired after the promotion of the last manager in that department?

```
SELECT EMPLOYEES.EMP_NO, CONCAT(FIRST_NAME, " ", LAST_NAME), HIRE_DATE AS FULL_NAME
FROM EMPLOYEES JOIN DEPT_EMP ON EMPLOYEES.EMP_NO = DEPT_EMP.EMP_NO
WHERE DEPT_NO = (SELECT DEPT_NO FROM DEPARTMENTS WHERE DEPT_NAME = "Production")
AND HIRE_DATE >
    (SELECT MAX(FROM_DATE) FROM DEPT_MANAGER JOIN DEPARTMENTS ON DEPT_MANAGER.DEPT_NO =
    DEPARTMENTS.DEPT_NO
    WHERE DEPT_NAME = "Production");
```

Output:

```
| 499856 | Yoshinari Theuretzbacher           | 1997-05-17 |
| 499916 | Florina Cusworth                   | 1997-05-18 |
| 499993 | DeForest Mullainathan              | 1997-04-07 |
| 499999 | Sachin Tsukuda                     | 1997-11-30 |
+--------+------------------------------------+------------+
3758 rows in set (0.13 sec)
```

Find the average salary of each department, from highest to lowest.

```
SELECT DEPT_NO, AVG(AVG_EMP) AS AVG_DEPT FROM DEPT_EMP JOIN
    (SELECT EMP_NO, AVG(SALARY) AS AVG_EMP FROM SALARIES GROUP BY EMP_NO) AS AVG_SALARY_EMP
ON DEPT_EMP.EMP_NO = AVG_SALARY_EMP.EMP_NO
GROUP BY DEPT_NO ORDER BY AVG_DEPT DESC;
```

Output:

```
+---------+-----------------+
| DEPT_NO | AVG_DEPT        |
+---------+-----------------+
| d007    | 78313.22247361  |
| d001    | 69541.61771136  |
| d002    | 68061.43501801  |
| d008    | 57322.03105659  |
| d004    | 57253.31382027  |
| d005    | 57152.20845497  |
| d009    | 56480.08591880  |
| d006    | 54892.93507273  |
| d003    | 53214.29085744  |
+---------+-----------------+
9 rows in set (3.02 sec)
```

Find the average salary for each type of Engineer, from highest to lowest.

```
SELECT TITLE, AVG(AVG_EMP) AS AVG_TITLE FROM TITLES JOIN
    (SELECT EMP_NO, AVG(SALARY) AS AVG_EMP FROM SALARIES GROUP BY EMP_NO) AS AVG_SALARY_EMP
ON TITLES.EMP_NO = AVG_SALARY_EMP.EMP_NO
WHERE TITLE LIKE '%Engineer%'
GROUP BY TITLE ORDER BY AVG_TITLE DESC;
```

Output:

```
+--------------------+-----------------+
| TITLE              | AVG_TITLE       |
+--------------------+-----------------+
| Senior Engineer    | 59144.76835191 |
| Engineer           | 57244.45845623 |
| Assistant Engineer | 56963.53043254 |
+--------------------+-----------------+
3 rows in set (3.15 sec)
```