MI 1.02: Report #7

Due on

Nghiem Thi Phuong 5:30pm

Cao Anh Quan

Problem 1

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

```
CREATE VIEW emp_finance_last_name AS
  SELECT 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 departments.dept_name = 'Finance';

SELECT *
FROM employees
WHERE employees.last_name IN (
  SELECT last_name
  FROM emp_finance_last_name
);
```

```
sql> CREATE VIEW emp_finance_last_name AS
SELECT 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 departments.dept_name = 'Finance'
[2017-11-10 18:29:45] completed in 51ms
sql> SELECT *
FROM employees
WHERE employees.last_name IN (
  SELECT last_name
  FROM emp_finance_last_name
)
[2017-11-10 18:30:07] 408 rows retrieved starting from 1 in 879ms (execution: 739ms, fetching: 140ms)
```

	emp_no	birth_date	first_name	last_name	gender	hire_date
1	10210	1958-01-24	Yuping	Alpin	M	1994-05-10
2	10414	1954-04-09	Yinlin	Alpin	M	1990-05-30
3	11856	1962-12-18	Gao	Alpin	F	1989-01-14
4	12920	1964-05-06	Tetsushi	Legleitner	F	1988-10-01
5	13292	1962-04-04	Bokyung	Alpin	F	1995-05-17
6	13785	1961-03-08	Shietung	Legleitner	F	1997-06-04
7	14045	1953-06-28	Ymte	Alpin	M	1987-01-21
8	14813	1964-08-16	Naftali	Alpin	M	1985-10-21
9	15331	1953-08-16	Guther	Legleitner	F	1992-09-20

Problem 1 continued on next page...

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

```
CREATE VIEW last_promo AS
  SELECT MAX(from_date) AS max_date
  FROM dept_manager
    JOIN departments ON dept_manager.dept_no = departments.dept_no
  WHERE dept_name = 'Production';

SELECT *
FROM employees
  JOIN dept_emp ON employees.emp_no = dept_emp.emp_no
WHERE dept_emp.dept_no = (
  SELECT dept_no
  FROM departments
  WHERE dept_name = 'Production'
) AND employees.hire_date >
      (SELECT max_date
       FROM last_promo);
```

```
sql> CREATE VIEW last_promo AS
  SELECT MAX(from_date) AS max_date
  FROM dept_manager
    JOIN departments ON dept_manager.dept_no = departments.dept_no
  WHERE dept_name = 'Production'
[2017-11-10 18:40:59] completed in 11ms
sql> SELECT *
FROM employees
  JOIN dept_emp ON employees.emp_no = dept_emp.emp_no
WHERE dept_emp.dept_no = (
  SELECT dept_no
  FROM departments
  WHERE dept_name = 'Production'
) AND employees.hire_date >
      (SELECT max_date
       FROM last_promo)
[2017-11-10 18:41:10] 500 rows retrieved starting from 1 in 781ms (execution: 185ms, fetching: 596ms)
```

	employees.emp_no	birth_date	first_name	last_name	gender	hire_date	dept_emp.emp_no	dept_no	from_date	to_date
1	10024	1958-09-05	Suzette	Pettey	F	1997-05-19	10024	d004	1998-06-14	9999-01-01
2	10218	1958-12-07	Zhenhua	Magalhaes	M	1997-01-15	10218	d004	1997-01-31	9999-01-01
3	10267	1956-01-16	Shaunak	Cullers	M	1996-12-11	10267	d004	1997-04-26	9999-01-01
4	10284	1954-04-08	Masali	Murrill	F	1997-07-02	10284	d004	1999-07-06	9999-01-01
5	10298	1954-07-06	Dietrich	DuCasse	F	1999-03-30	10298	d004	2002-05-05	9999-01-01
6	10552	1953-03-25	Kazuhito	Shiratori	M	1998-08-18	10552	d004	1998-08-31	9999-01-01
7	10684	1956-01-23	Aimee	Tokunaga	F	1999-10-28	10684	d004	1999-10-28	9999-01-01

Problem 1 continued on next page. . .

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

```
CREATE VIEW avg_salary_emp AS
  SELECT
    emp_no,
    avg(salary) AS average_salary
  FROM salaries
  GROUP BY emp_no;

SELECT
  dept_name,
  avg(average_salary) AS avg_salary
FROM dept_emp
  JOIN avg_salary_emp
    ON dept_emp.emp_no = avg_salary_emp.emp_no
  JOIN departments
    ON departments.dept_no = dept_emp.dept_no
GROUP BY departments.dept_no
ORDER BY avg_salary DESC;
```

	dept_name	avg_salary
1	Sales	78313.22247361
2	Marketing	69541.61771136
3	Finance	68061.43501801
4	Research	57322.03105659
5	Production	57253.31382027
6	Development	57152.20845497
7	Customer Service	56480.08591880
8	Quality Management	54892.93507273
9	Human Resources	53214.29085744

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

```
CREATE VIEW avg_salary_emp AS
  SELECT
    emp_no,
    avg(salary) AS average_salary
  FROM salaries
  GROUP BY emp_no;


SELECT
  title,
  avg(average_salary) AS avg_salary
FROM
  titles
  JOIN avg_salary_emp
    ON titles.emp_no = avg_salary_emp.emp_no
```

Problem 1 continued on next page...

```
WHERE title LIKE "%Engineer%"
GROUP BY title
ORDER BY avg_salary DESC;
```

	title	avg_salary
1	Senior Engineer	59144.76835191
2	Engineer	57244.45845623
3	Assistant Engineer	56963.53043254