

MI 1.02: Report #7

Due on

Nghiem Thi Phuong 5:30pm

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Problem 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
5  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 *
10 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	Bokyoung	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

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	Petty	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	Shauhak	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	Kazuhiro	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

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

```

CREATE VIEW dept_salary AS
SELECT
    dept_no,
    salary
5  FROM salaries
    JOIN dept_emp ON salaries.emp_no = dept_emp.emp_no;

SELECT
10 dept_no,
    AVG(salary) AS avg_salary
FROM dept_salary
GROUP BY dept_salary.dept_no
ORDER BY avg_salary DESC;

```

```

sql> CREATE VIEW dept_salary AS
SELECT
    dept_no,
    salary
FROM salaries
JOIN dept_emp ON salaries.emp_no = dept_emp.emp_no
[2017-11-10 18:43:48] completed in 32ms

sql> SELECT
    dept_no,
    AVG(salary) AS avg_salary
FROM dept_salary
GROUP BY dept_salary.dept_no
ORDER BY avg_salary DESC
[2017-11-10 18:44:04] 9 rows retrieved starting from 1 in 8s 211ms (execution: 8s 195ms, fetching: 16ms)

```

	dept_no	avg_salary
1	d007	80667.6058
2	d001	71913.2000
3	d002	70489.3649
4	d008	59665.1817
5	d004	59605.4825
6	d005	59478.9012
7	d009	58770.3665
8	d006	57251.2719
9	d003	55574.8794

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

```
CREATE VIEW salary_engineer AS
SELECT
    title,
    salary
5 FROM salaries
    JOIN titles ON salaries.emp_no = titles.emp_no
    WHERE title LIKE '%Engineer%';

10 SELECT
    title,
    AVG(salary) AS avg_salary
FROM salary_engineer
GROUP BY title
ORDER BY avg_salary DESC;
```

```
sql> CREATE VIEW salary_engineer AS
SELECT
    title,
    salary
FROM salaries
    JOIN titles ON salaries.emp_no = titles.emp_no
    WHERE title LIKE '%Engineer%'
[2017-11-10 18:47:11] completed in 25ms
```

```
sql> SELECT
    title,
    AVG(salary) AS avg_salary
FROM salary_engineer
GROUP BY title
ORDER BY avg_salary DESC
[2017-11-10 18:47:30] 3 rows retrieved starting from 1 in 5s 693ms (execution: 5s 657ms, fetching: 36ms)
```

	title	avg_salary
1	Senior Engineer	60543.2191
2	Engineer	59508.0397
3	Assistant Engineer	59304.9863