

Title: Sub Queries

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1. Display Last Name and Hire Date of Employees in the Same Department as the Given Employee (Excluding the Given Employee):

Query:

```
SELECT last_name, hire_date
FROM employees
WHERE department_id = (SELECT department_id
                      FROM employees
                      WHERE last_name = '&Employee_Last_Name')
AND last_name <> '&Employee_Last_Name';
```

Output:

last_name	hire_date
Clark	2018-05-14
Turner	2019-11-01

This output shows all employees in the same department as Zlotkey, excluding Zlotkey.

2. Report of Employees Earning More Than the Average Salary:

Query:

```
SELECT employee_id, last_name, salary
FROM employees
WHERE salary > (SELECT AVG(salary) FROM employees)
ORDER BY salary ASC;
```

Expected Output:

employee_id	last_name	salary
103	Taylor	5000
104	Miller	5500
105	Allen	6000

This output lists employees earning more than the average salary, sorted by ascending salary.

3. Employees in Departments with Any Employee Whose Last Name Contains 'u':

Query:

```
SELECT employee_id, last_name
FROM employees
WHERE department_id IN (SELECT department_id
                        FROM employees
                        WHERE last_name LIKE '%u%');
```

Expected Output:

employee_id	last_name
101	Adams
102	Turner
106	Curtis

This output lists all employees working in departments where at least one employee's last name contains a 'u'.

4. Report of Employees Whose Department Location ID is 1700:

Query:

```
SELECT last_name, department_id, job_id
FROM employees
WHERE department_id IN (SELECT department_id
                        FROM departments
                        WHERE location_id = 1700);
```

Expected Output:

last_name	department_id	job_id
Anderson	10	HR_REP
Johnson	20	AC_MGR

This output lists employees in departments located at location ID 1700.

5. Report of Employees Who Report to King:

Query:

```
SELECT last_name, salary
FROM employees
WHERE manager_id = (SELECT employee_id
                    FROM employees
                    WHERE last_name = 'King');
```

Expected Output:

last_name	salary
Smith	6000
Harris	5500

This output lists employees who report directly to King.

6. Report of Employees in the Executive Department:

Query:

```
SELECT department_id, last_name, job_id
FROM employees
WHERE department_id = (SELECT department_id
                      FROM departments
                      WHERE department_name = 'Executive');
```

Expected Output:

department_id	last_name	job_id
10	Anderson	CEO
10	Brown	COO

This output lists employees in the Executive department.

7. Employees Earning More Than the Average Salary and Working in a Department with Any Employee Whose Last Name Contains 'u':

Query:

```
SELECT employee_id, last_name, salary
FROM employees
WHERE salary > (SELECT AVG(salary) FROM employees)
AND department_id IN (SELECT department_id
                      FROM employees
                      WHERE last_name LIKE '%u%');
```

Expected Output:

employee_id	last_name	salary
107	Adams	7000
108	Turner	7500

This output lists employees earning more than the average salary and working in departments where an employee's last name contains a 'u'.