

Lab - 4

SQL query based on Joins I

- Write a query in SQL to display all departments including those where does not have any employee.

QUERY

```
SELECT d.department_id, d.department_name, e.employee_id
FROM departments d
LEFT JOIN employees e ON d.department_id = e.department_id;
```

OUTPUT

DEPARTMENT_ID	DEPARTMENT_NAME	EMPLOYEE_ID
10	Administration	200
20	Marketing	201
20	Marketing	202
30	Purchasing	114
30	Purchasing	115
30	Purchasing	116
30	Purchasing	117
30	Purchasing	118

- Write a query in SQL to display the first and last name and salary for those employees who earn less than the employee earn whose number is 182.

QUERY

```
SELECT first_name, last_name, salary
FROM employees
WHERE salary < (SELECT salary
FROM employees
WHERE employee_id = 182);
```

OUTPUT

FIRST_NAME	LAST_NAME	SALARY
James	Landry	2400
Steven	Markle	2200
TJ	Olson	2100
Ki	Gee	2400
Hazel	Philtanker	2200

- Write a query in SQL to display the first name of all employees including the first name of their manager.

QUERY

```
SELECT e1.first_name AS employee_first_name, e2.first_name AS
manager_first_name
FROM employees e1
LEFT JOIN employees e2
```

ON e1.manager_id = e2.employee_id;

OUTPUT

EMPLOYEE_FIRST_NAME	MANAGER_FIRST_NAME
Steven	-
Neena	Steven
Lex	Steven
Alexander	Lex
Bruce	Alexander
David	Alexander
Valli	Alexander
Diana	Alexander

4. Write a query in SQL to display the department name, city, and state province for each department

QUERY

```
SELECT d.department_name, l.city, l.state_province
FROM departments d
JOIN locations l
ON d.location_id = l.location_id;
```

OUTPUT

DEPARTMENT_NAME	CITY	STATE_PROVINCE
IT	Southlake	Texas
Shipping	South San Francisco	California
Administration	Seattle	Washington
Purchasing	Seattle	Washington
Executive	Seattle	Washington
Finance	Seattle	Washington
Accounting	Seattle	Washington
Treasury	Seattle	Washington

5. Write a query in SQL to display the first name, last name, department number and name, for all employees who have or have not any department.

QUERY

```
SELECT e.first_name, e.last_name, e.department_id, d.department_name
FROM employees e
LEFT JOIN departments d
ON e.department_id = d.department_id;
```

OUTPUT

FIRST_NAME	LAST_NAME	DEPARTMENT_ID	DEPARTMENT_NAME
Steven	King	90	Executive
Neena	Kochhar	90	Executive
Lex	De Haan	90	Executive
Alexander	Hunold	60	IT
Bruce	Ernst	60	IT
David	Austin	60	IT
Valli	Pataballa	60	IT
Diana	Lorentz	60	IT