

## Lab - 4

### SQL query based on Joins I

1. Write a query in SQL to display the first name, last name, department number, and department name for each employee.

QUERY

```
SELECT first_name, last_name, department_id, department_name
FROM employees
NATURAL JOIN departments
```

OUTPUT

FIRST_NAME	LAST_NAME	DEPARTMENT_ID	DEPARTMENT_NAME
Neena	Kochhar	90	Executive
Lex	De Haan	90	Executive
Bruce	Ernst	60	IT
David	Austin	60	IT
Valli	Pataballa	60	IT
Diana	Lorentz	60	IT
Daniel	Faviet	100	Finance

2. Write a query in SQL to display the first and last name, department, city, and state province for each employee.

QUERY

```
SELECT first_name, last_name, department_name AS department, city,
state_province
FROM employees
NATURAL JOIN departments
NATURAL JOIN locations
```

OUTPUT

FIRST_NAME	LAST_NAME	DEPARTMENT	CITY	STATE_PROVINCE
Neena	Kochhar	Executive	Roma	-
Neena	Kochhar	Executive	Venice	-
Neena	Kochhar	Executive	Tokyo	Tokyo Prefecture
Neena	Kochhar	Executive	Hiroshima	-
Neena	Kochhar	Executive	Southlake	Texas
Neena	Kochhar	Executive	South San Francisco	California
Neena	Kochhar	Executive	South Brunswick	New Jersey

3. Write a query in SQL to display the first name, last name, salary, and job grade for all employees.

QUERY

```
SELECT first_name, last_name, salary, job_title AS grade
FROM employees e
NATURAL JOIN jobs
```

OUTPUT

FIRST_NAME	LAST_NAME	SALARY	GRADE
Steven	King	24000	President
Neena	Kochhar	17000	Administration Vice President
Lex	De Haan	17000	Administration Vice President
Alexander	Hunold	9000	Programmer
Bruce	Ernst	6000	Programmer
David	Austin	4800	Programmer
Valli	Pataballa	4800	Programmer

4. Write a query in SQL to display the first name, last name, department number and department name, for all employees for departments 80 or 40.

QUERY

```
SELECT first_name, last_name, e.department_id, department_name
FROM employees e
JOIN departments d
ON e.department_id = d.department_id
AND e.department_id IN (40, 80);
```

OUTPUT

FIRST_NAME	LAST_NAME	DEPARTMENT_ID	DEPARTMENT_NAME
Ellen	Abel	80	Sales
Sundar	Ande	80	Sales
Amit	Banda	80	Sales
Elizabeth	Bates	80	Sales
David	Bernstein	80	Sales
Harrison	Bloom	80	Sales
Gerald	Cambrault	80	Sales
Nanette	Cambrault	80	Sales

5. Write a query in SQL to display those employees who contain a letter z to their first name and also display their last name, department, city, and state province.

QUERY

```
SELECT first_name, last_name, department_name AS department,
state_province
FROM employees e
JOIN departments d
ON e.department_id = d.department_id AND e.first_name LIKE '%z%'
JOIN locations l
ON d.location_id = l.location_id
```

OUTPUT

FIRST_NAME	LAST_NAME	DEPARTMENT	CITY	STATE_PROVINCE
Mozhe	Atkinson	Shipping	South San Francisco	California
Hazel	Philtanker	Shipping	South San Francisco	California
Elizabeth	Bates	Sales	Oxford	Oxford

3 rows returned in 0.00 seconds

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