## **WORKING WITH MULTIPLE TABLES**

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1. Write a query to display the last name, department number, and department name for all Employees.

SELECT e.last\_name, e.department\_id, d.department\_name

FROM employees e

JOIN departments d

ON e.department\_id = d.department\_id;

LAST_NAME	DEPARTMENT_ID	DEPARTMENT_NAME
King	10	Administration
Davies	80	Sales
Smith	80	Sales

2. Create a unique listing of all jobs that are in department 80. Include the location of the department in the output.

SELECT DISTINCT e.job\_id, l.city

FROM employees e

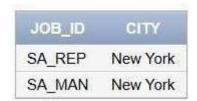
JOIN departments d

ON e.department\_id = d.department\_id

JOIN locations I

ON d.location\_id = I.location\_id

WHERE e.department\_id = 80;



3. Write a query to display the employee last name, department name, location ID, and city of all employees who earn a commission

SELECT e.last\_name, d.department\_name, d.location\_id, l.city

FROM employees e

JOIN departments d

ON e.department\_id = d.department\_id

JOIN locations I

ON d.location\_id = I.location\_id

WHERE e.commission\_pct IS NOT NULL;

LAST_NAME	DEPARTMENT_NAME	LOCATION_ID	CITY
Davies	Sales	2	New York
Smith	Sales	2	New York

2. Display the employee last name and department name for all employees who have an a(lowercase) in their last names. P

SELECT e.last\_name, d.department\_name

FROM employees e

JOIN departments d

ON e.department\_id = d.department\_id

WHERE LOWER(e.last\_name) LIKE '%a%';



5. Write a query to display the last name, job, department number, and department name for all employees who work in Toronto.

SELECT e.last\_name, e.job\_id, e.department\_id, d.department\_name

FROM employees e

JOIN departments d

ON e.department\_id = d.department\_id

JOIN locations I

ON d.location\_id = I.location\_id

WHERE I.city = 'Toronto';

LAST_NAME	JOB_ID	DEPARTMENT_ID	DEPARTMENT_NAME
King	AD_PRES	10	Administration

6. Display the employee last name and employee number along with their manager's last name and manager number. Label the columns Employee, Emp#, Manager, and Mgr#, Respectively

SELECT e.last\_name AS Employee, e.employee\_id AS Emp#,

m.last\_name AS Manager, m.employee\_id AS Mgr#

FROM employees e

LEFT JOIN employees m

ON e.manager\_id = m.employee\_id;

EMP#	MANAGER	MGR#
4	King	1
2	King	1
5	Davies	2
3	Davies	2
1	C.T.	8
	4 2	4 King 2 King 5 Davies

7. Modify lab4\_6.sql to display all employees including King, who has no manager. Order the results by the employee number.

SELECT e.last\_name, e.employee\_id, m.last\_name AS Manager

FROM employees e

LEFT JOIN employees m

ON e.manager\_id = m.employee\_id

ORDER BY e.employee\_id;

LAST_NAME	EMPLOYEE_ID	MANAGER
King	1	1 <del>4</del> 6
Davies	2	King
Smith	3	Davies
Johnson	4	King
Williams	5	Davies

8. Create a query that displays employee last names, department numbers, and all the employees

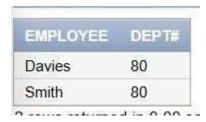
who work in the same department as a given employee. Give each column an appropriate label

SELECT e.last\_name AS Employee, e.department\_id AS Dept# FROM employees e

JOIN employees emp

ON e.department\_id = emp.department\_id

WHERE emp.employee\_id = 2; -- Replace with a specific employee ID



9. Show the structure of the JOB\_GRADES table. Create a query that displays the name, job, department name, salary, and grade for all employees

DESCRIBE job\_grades;

SELECT e.last\_name, e.job\_id, d.department\_name, e.salary, jg.grade\_level

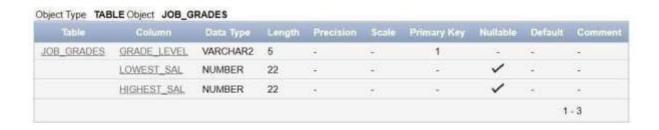
FROM employees e

JOIN departments d

ON e.department\_id = d.department\_id

JOIN job\_grades jg

ON e.salary BETWEEN jg.lowest\_sal AND jg.highest\_sal;



no data found

10. Create a query to display the name and hire date of any employee hired after employee Davies.

SELECT e.last\_name, e.hire\_date

FROM employees e

WHERE e.hire\_date > (SELECT hire\_date FROM employees WHERE last\_name = 'Davies');

LAST_NAME	HIRE_DATE
Smith	04/23/2006
Williams	12/01/2007

11. Display the names and hire dates for all employees who were hired before their managers, along with their manager's names and hire dates. Label the columns Employee, Emp Hired, Manager, and Mgr Hired, respectively.

SELECT e.last\_name AS Employee, e.hire\_date AS "Emp Hired",

m.last\_name AS Manager, m.hire\_date AS "Mgr Hired"

FROM employees e

JOIN employees m

ON e.manager id = m.employee id WHERE

e.hire\_date < m.hire\_date;