



Universidad Autónoma de Chihuahua

Facultad de Ingeniería

Asignatura: Fundamentos de bases de datos

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Act. 6 SQL Subconsultas

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Realizar un documento formal en formato PDF con la respuesta a los requerimientos(Se deberá incluir la redacción del problema, la consulta de SQL y el resultado para cada consulta de la actividad)

1. Obtener el department_name de los departamentos con el mayor no. de empleados asignados

The screenshot shows the SQL Developer interface. On the left, the 'Conexiones' pane shows the 'HR' schema with tables like REGION_ID, DEPARTMENTS, EMPLOYEES, and JOB_HISTORY. The 'Hoja de Trabajo' pane contains the following SQL query:

```
SELECT department_name
FROM departments
WHERE department_id = (
    SELECT department_id
    FROM employees
    GROUP BY department_id
    ORDER BY COUNT(*) DESC
    FETCH FIRST 1 ROWS ONLY
);
```

The 'Resultado de la Consulta' pane shows the result of the query:

DEPARTMENT_NAME
1 Shipping

2. Obtener el first_name y last_name de los empleados que tienen un salario mayor al salario del empleado 'Hermann' (first_name, last_name, salary)

The screenshot shows the SQL Developer interface. On the left, the 'Conexiones' pane shows the 'HR' schema. The 'Hoja de Trabajo' pane contains the following SQL query:

```
SELECT first_name, last_name, salary
FROM employees
WHERE salary > (
    SELECT salary
    FROM employees
    WHERE first_name = 'Hermann'
);
```

The 'Resultado de la Consulta' pane shows the result of the query:

FIRST_NAME	LAST_NAME	SALARY
1 Steven	King	24000
2 Weena	Kochhar	17000
3 Lex	De Haan	17000
4 Nancy	Greenberg	12008
5 Den	Raphaely	11000
6 John	Russell	14000
7 Karen	Partners	13500
8 Alberto	Errazuriz	12000
9 Gerald	Cambrault	11000
10 Eleni	Zlotkey	10500

3. Obtener el first_name y last_name de los empleados que ganan más que todos los empleados del departamento de 'IT' (first_name, last_name, salary)

The screenshot shows the Oracle SQL Developer interface. The left pane displays the database schema with tables: REGION_ID, DEPARTMENTS, DEPARTMENT_ID, DEPARTMENT_NAME, MANAGER_ID, LOCATION_ID, EMPLOYEES, and JOB_HISTORY. The main editor contains the following SQL query:

```
SELECT first_name, last_name, salary
FROM employees
WHERE salary > (
    SELECT MAX(salary)
    FROM employees INNER JOIN departments USING (department_id)
    WHERE department_name = 'IT'
);
```

The bottom pane shows the query results with 23 rows. The status bar indicates "Todas las Filas Recuperadas: 23 en 0.012 segundos".

	FIRST_NAME	LAST_NAME	SALARY
1	Steven	King	24000
2	Neena	Kochhar	17000
3	Lex	De Haan	17000
4	Nancy	Greenberg	12008
5	Den	Raphaely	11000
6	John	Russell	14000
7	Karen	Partners	13500
8	Alberto	Errazuriz	12000
9	Gerald	Cambridge	11000

4. Obtener first_name y last_name de los empleados que su puesto actual es el único puesto que han ocupado en la compañía

The screenshot shows the Oracle SQL Developer interface. The left pane displays the database schema. The main editor contains the following SQL query:

```
SELECT first_name, last_name
FROM employees
WHERE employee_id NOT IN (
    SELECT employee_id
    FROM job_history
);
```

The bottom pane shows the query results with 10 rows. The status bar indicates "Se han recuperado 50 filas en 0.051 segundos".

	FIRST_NAME	LAST_NAME
1	Steven	King
2	Alexander	Hunold
3	Bruce	Ernst
4	David	Austin
5	Valli	Pataballa
6	Diana	Lorentz
7	Nancy	Greenberg
8	Daniel	Faviet
9	John	Chen
10	Ismael	Sciarra

5. Obtener el department_name de los departamentos que no tienen asignados empleados en este momento

The screenshot shows the Oracle SQL Developer interface. On the left, the 'Conexiones' pane displays a tree view of the database schema, including tables like REGION_ID, DEPARTMENTS, EMPLOYEES, and JOB_HISTORY. The 'Buscar Objeto de Base de Datos' pane is also visible. The main window shows a SQL script in the 'Hoja de Trabajo' tab:

```
SELECT department_name
FROM departments d
LEFT JOIN employees e ON d.department_id = e.department_id
WHERE e.first_name IS NULL;
```

The 'Resultado de la Consulta' pane shows the results of the query, listing department names:

DEPARTMENT_NAME
1 Treasury
2 Corporate Tax
3 Control And Credit
4 Shareholder Services
5 Benefits
6 Manufacturing
7 Construction
8 Contracting
9

6. Obtener el first_name y last_name de los empleados que ganan más que al menos uno de los empleados del departamento de 'IT' (first_name, last_name, salary)

The screenshot shows the Oracle SQL Developer interface. The main window displays a SQL script in the 'Hoja de Trabajo' tab:

```
SELECT first_name, last_name, salary
FROM employees
WHERE salary > (
    SELECT MIN(salary)
    FROM employees INNER JOIN departments USING (department_id)
    WHERE department_name = 'IT'
);
```

The 'Resultado de la Consulta' pane shows the results of the query, listing employee names and salaries:

FIRST_NAME	LAST_NAME	SALARY
1 Steven	King	24000
2 Neena	Kochhar	17000
3 Lex	De Haan	17000
4 Alexander	Hunold	9000
5 Bruce	Ernst	6000
6 David	Austin	4800
7 Valli	Pataballa	4800
8 Nancy	Greenberg	12008
9 Daniel	Faviet	9000
10 John	Chen	8200

7. Obtener el first_name y last_name de los empleados que tienen el mismo puesto que el empleado 'Randall' y el mismo salario que 'Peter' (first_name, last_name, job_id, salary)

The screenshot shows the Oracle SQL Developer interface. On the left, the 'Conexiones' pane displays a tree view of the database schema, including tables like REGION_ID, DEPARTMENTS, EMPLOYEES, and JOB_HISTORY. The 'Hoja de Trabajo' pane contains a SQL query:

```
SELECT first_name, last_name, job_id, salary
FROM employees
WHERE job_id IN (
    SELECT job_id
    FROM employees
    WHERE first_name = 'Randall'
)
AND salary IN (
    SELECT salary
    FROM employees
    WHERE first_name = 'Peter'
);
```

The 'Resultado de la Consulta' pane shows the results of the query, displaying 5 rows of employee data:

	FIRST_NAME	LAST_NAME	JOB_ID	SALARY
1	Martha	Sullivan	SH_CLERK	2500
2	Randall	Perkins	SH_CLERK	2500
3	James	Marlow	ST_CLERK	2500
4	Joshua	Patel	ST_CLERK	2500
5	Peter	Vargas	ST_CLERK	2500

8. Obtener el first_name y last_name de los empleados que tienen el mismo puesto que el empleado 'Randall' o el mismo salario que 'Peter' (first_name, last_name, job_id, salary)

The screenshot shows the Oracle SQL Developer interface. On the left, the 'Conexiones' pane displays a tree view of the database schema. The 'Hoja de Trabajo' pane contains a SQL query:

```
SELECT first_name, last_name, job_id, salary
FROM employees
WHERE job_id IN (
    SELECT job_id
    FROM employees
    WHERE first_name = 'Randall'
)
OR salary IN (
    SELECT salary
    FROM employees
    WHERE first_name = 'Peter'
);
```

The 'Resultado de la Consulta' pane shows the results of the query, displaying 10 rows of employee data:

	FIRST_NAME	LAST_NAME	JOB_ID	SALARY
1	Alexander	Hunold	IT_PROG	9000
2	Daniel	Faviet	FI_ACCOUNT	9000
3	Karen	Colmenares	PU_CLERK	2500
4	Julia	Mayer	ST_CLERK	3200
5	Irene	Mikkilineni	ST_CLERK	2700
6	James	Landry	ST_CLERK	2400
7	Steven	Markle	ST_CLERK	2200
8	Laura	Bissot	ST_CLERK	3300
9	Mozhe	Atkinson	ST_CLERK	2800
10	James	Marlow	ST_CLERK	2500

9. Obtener el first_name y last_name de los empleados que ganan más que todos los empleados subordinados de 'Shanta' (first_name, last_name, salary)

The screenshot shows the Oracle SQL Developer interface. The left pane displays the database schema with tables like REGION_ID, DEPARTMENTS, EMPLOYEES, and JOB_HISTORY. The main editor contains the following SQL query:

```
SELECT first_name, last_name, salary
FROM employees
WHERE salary > (
    SELECT MAX(salary)
    FROM employees
    WHERE manager_id = (
        SELECT employee_id
        FROM employees
        WHERE first_name = 'Shanta'
    )
);
```

The bottom pane shows the query results, indicating that 50 rows were retrieved in 0.015 seconds. The results are displayed in a table with columns FIRST_NAME, LAST_NAME, and SALARY.

	FIRST_NAME	LAST_NAME	SALARY
1	Steven	King	24000
2	Neena	Kochhar	17000
3	Lex	De Haan	17000
4	Alexander	Hunold	9000
5	Bruce	Ernst	6000
6	David	Austin	4800
7	Valli	Pataballa	4800
8	Diana	Lorentz	4200
9	Nancy	Greenberg	12008
10	Daniel	Faviet	9000

10. Obtener el first_name y last_name de los empleados que ganan más que al menos uno de los empleados subordinados de 'Shanta' (first_name, last_name, salary)

The screenshot shows the Oracle SQL Developer interface. The left pane displays the database schema. The main editor contains the following SQL query:

```
SELECT first_name, last_name, salary
FROM employees
WHERE salary > (
    SELECT MIN(salary)
    FROM employees
    WHERE manager_id = (
        SELECT employee_id
        FROM employees
        WHERE first_name = 'Shanta'
    )
);
```

The bottom pane shows the query results, indicating that 50 rows were retrieved in 0.009 seconds. The results are displayed in a table with columns FIRST_NAME, LAST_NAME, and SALARY.

	FIRST_NAME	LAST_NAME	SALARY
1	Steven	King	24000
2	Neena	Kochhar	17000
3	Lex	De Haan	17000
4	Alexander	Hunold	9000
5	Bruce	Ernst	6000
6	David	Austin	4800
7	Valli	Pataballa	4800
8	Diana	Lorentz	4200
9	Nancy	Greenberg	12008
10	Daniel	Faviet	9000