



Islamic University of Gaza
Faculty of Engineering
Computer Department

Advanced DataBase ECOM 5054
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Oracle LAB 9 Exercises

Exercise 1 :

Display the last name, department name, and salary of any employee whose salary and commission match the salary and commission of any employee located in location ID 1700.

The Result:

The screenshot shows an Oracle SQL*Plus window titled "SQL Window - SELECT e.last_name, d.department_name, e.salary FROM e...". The window has three tabs: "SQL", "Output", and "Statistics". The "SQL" tab is active, displaying the following query:

```
SELECT e.last_name, d.department_name, e.salary
FROM employees e
JOIN departments d
ON (e.department_id = d.department_id)
WHERE (salary, NVL(commission_pct,0)) IN ( SELECT salary, NVL(commission_pct,0)
FROM employees e
JOIN departments d
ON (e.department_id = d.department_id)
WHERE d.location_id = 1700);
```

Below the query, the "Output" tab displays the results of the query in a table format. The table has four columns: "LAST_NAME", "DEPARTMENT_NAME", and "SALARY". The results are as follows:

	LAST_NAME	DEPARTMENT_NAME	SALARY
1	Whalen	Administration	4400.00
2	Greenberg	Finance	12000.00
3	Higgins	Accounting	12000.00
4	Gietz	Accounting	8300.00
5	King	Executive	24000.00
6	De Haan	Executive	17000.00
7	Kochhar	Executive	17000.00

The status bar at the bottom of the window indicates "9:34" and "7 rows selected in 0.266 seconds (more...)".



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Exercise 2 :

Write a query to find all employees who earn more than the average salary in their departments.
Display last name, salary, department ID, and the average salary for the department.
Sort by average salary.

The Result:

The screenshot shows a SQL window titled "SQL Window - SELECT last_name ename, salary, dept.department_id deptno, ...". The query is as follows:

```
SELECT last_name ename, salary, dept.department_id deptno, dept.dept_avg_sal
FROM employees outer

JOIN
(SELECT department_id, AVG(salary) dept_avg_sal
FROM employees
GROUP BY department_id) dept

ON (outer.department_id = dept.department_id)

WHERE salary > ( SELECT AVG(salary)
FROM employees
WHERE department_id = outer.department_id)

ORDER BY dept.dept_avg_sal;
```

The results are displayed in a table with the following columns: ENAME, SALARY, DEPTNO, and DEPT_AVG_SAL. The table contains 7 rows of data, sorted by the average salary of the department.

	ENAME	SALARY	DEPTNO	DEPT_AVG_SAL
1	Fay	6000.00	20	3040
2	Mourgos	5800.00	50	3475.555555555556
3	Weiss	8000.00	50	3475.555555555556
4	Fripp	8200.00	50	3475.555555555556
5	Kaufling	7900.00	50	3475.555555555556
6	Vollman	6500.00	50	3475.555555555556
7	Everett	3900.00	50	3475.555555555556

The status bar at the bottom indicates "16:28 7 rows selected in 0.094 seconds (more...)"



Exercise 3:

Write a query to display the last names of the employees who have one or more coworkers in their departments with later hire dates but higher salaries.

The Result:

The screenshot shows a SQL Window titled "SQL Window - SELECT last_name FROM employee...". The window has three tabs: "SQL", "Output", and "Statistics". The "SQL" tab is active, displaying the following query:

```
SELECT last_name
FROM employees outer
WHERE EXISTS ( SELECT 'X'
                FROM employees inner
                WHERE inner.department_id = outer.department_id
                AND   inner.hire_date > outer.hire_date
                AND   inner.salary > outer.salary);
```

Below the query editor is a toolbar with various icons for SQL operations. The "Output" tab is active, displaying a table with the results of the query:

	LAST_NAME	
1	Vargas	...
2	Patel	...
3	Olson	...
4	Marlow	...
5	Landry	...
6	Perkins	...
7	Sullivan	...
8	Gee	...
9	Hartstein	...

The status bar at the bottom indicates "9 rows selected in 0.031 seconds (more...)".



Exercise 4:

Write a query to display the department names of those departments whose total salary cost is above one-eighth (1/8) of the total salary cost of the whole company. Use the WITH clause to write this query. Name the query SUMMARY.

The Result:

SQL Window - WITH summary AS (SELECT d.department_name, SUM(e.salary) AS dept_total FROM employees e, departments d WHERE e.department_id = d.department_id GROUP BY d.department_name)

SELECT department_name, dept_total FROM summary WHERE dept_total > (SELECT SUM(dept_total) * 1/8 FROM summary)

ORDER BY dept_total DESC;

	DEPARTMENT_NAME	DEPT_TOTAL
1	Sales	304500
2	Shipping	156400

13:26 2 rows selected in 0.469 seconds