



Islamic University of Gaza
Faculty of Engineering
Computer Department

Advanced DataBase ECOM 5054
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Oracle LAB 5

Part 2

Exercise 1:

Find the highest, lowest, sum, and average salary of all employees. Label the columns Maximum, Minimum, Sum, and Average, respectively. Round your results to the nearest whole number.

The Result:

The screenshot shows an SQL Window titled "SQL Window - SELECT ROUND (MAX (salary)) 'Maximum', ROUND...". The window has three tabs: "SQL", "Output", and "Statistics". The "SQL" tab is active, displaying the following query:

```
SELECT ROUND (MAX (salary)) "Maximum", ROUND (MIN (salary)) "Minimum",  
ROUND (SUM (salary)) "Sum", ROUND (AVG (salary)) "Average"  
FROM employees;
```

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

	Maximum	Minimum	Sum	Average
1	24000	80	678480	6341

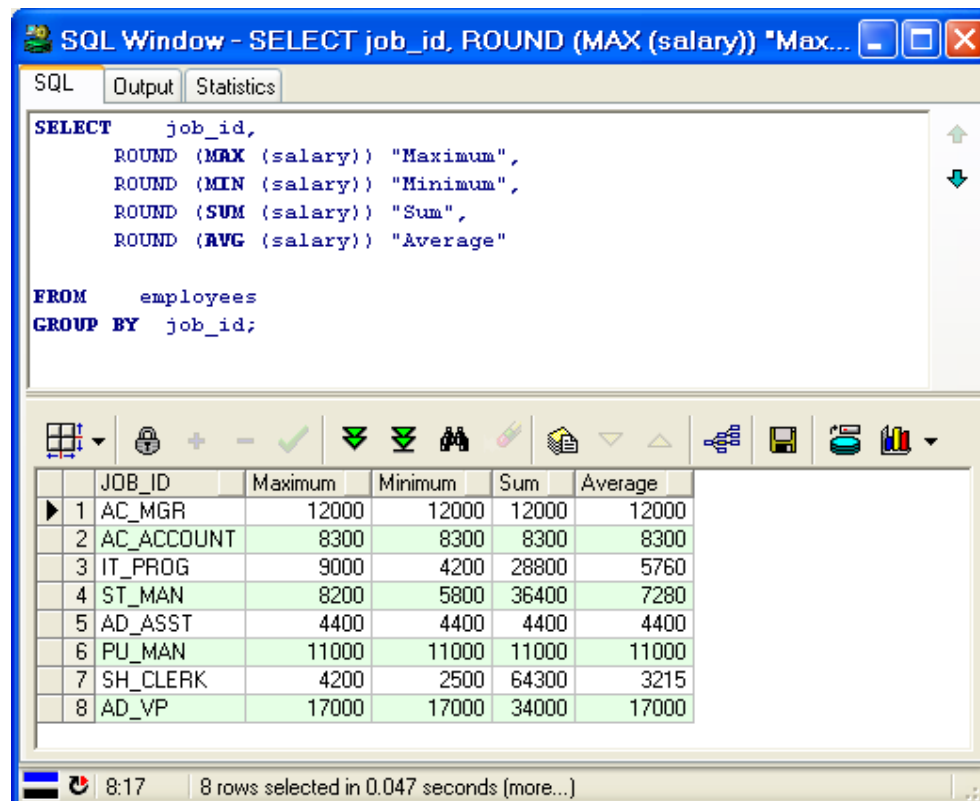
At the bottom of the window, the status bar indicates "2:1" and "1 row selected in 0.109 seconds".



Exercise 2:

Modify the query in Exercise 1 to display the minimum, maximum, sum, and average salary for each job type.

The Result:



SQL Window - SELECT job_id, ROUND (MAX (salary)) "Max...

SQL Output Statistics

```
SELECT    job_id,  
          ROUND (MAX (salary)) "Maximum",  
          ROUND (MIN (salary)) "Minimum",  
          ROUND (SUM (salary)) "Sum",  
          ROUND (AVG (salary)) "Average"  
  
FROM      employees  
GROUP BY  job_id;
```

	JOB_ID	Maximum	Minimum	Sum	Average
▶	1 AC_MGR	12000	12000	12000	12000
	2 AC_ACCOUNT	8300	8300	8300	8300
	3 IT_PROG	9000	4200	28800	5760
	4 ST_MAN	8200	5800	36400	7280
	5 AD_ASST	4400	4400	4400	4400
	6 PU_MAN	11000	11000	11000	11000
	7 SH_CLERK	4200	2500	64300	3215
	8 AD_VP	17000	17000	34000	17000

8:17 8 rows selected in 0.047 seconds (more...)



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Exercise 3:

Determine the number of managers without listing them. Label the column Number of Managers. *Hint: Use the MANAGER_ID column to determine the number of managers.*

The Result:

The screenshot shows a SQL Window titled "SQL Window - SELECT COUNT (DISTINCT manage...". It has three tabs: "SQL", "Output", and "Statistics". The "SQL" tab is active, displaying the query: `SELECT COUNT (DISTINCT manager_id) "Number of Managers" from employees;`. Below the query is a toolbar with various icons. The "Output" tab is selected, showing a table with one row. The table has two columns: "Number of Managers" and a value "18". The status bar at the bottom indicates "2:16" and "1 row selected in 0.047 seconds".

	Number of Managers
1	18



Exercise 4:

Create a report to display the manager number and the salary of the lowest-paid employee for that manager. Exclude anyone whose manager is not known. Exclude any groups where the minimum salary is \$6,000 or less. Sort the output in descending order of salary.

The Result:

The screenshot shows a SQL window titled "SQL Window - EX4.sql" with three tabs: "SQL", "Output", and "Statistics". The "SQL" tab is active, displaying the following query:

```
SELECT    manager_id, MIN (salary)
FROM      employees
WHERE     manager_id IS NOT NULL
GROUP BY  manager_id
HAVING    MIN (salary) > 6000
ORDER BY  MIN (salary) DESC;
```

Below the query, there is a toolbar with icons for grid, lock, zoom, and other functions. The results are displayed in a table with two columns: "MANAGER_ID" and "MIN(SALARY)".

	MANAGER_ID	MIN(SALARY)
1	102	9000
2	205	8300
3	146	7000
4	145	7000
5	108	6900
6	147	6200
7	149	6200
8	148	6100

At the bottom of the window, there is a status bar showing the time "6:28" and the message "SQL script saved successfully".