

EXERCISE 2: Aggregate Functions & Grouping

1. SELECT COUNT (id) AS number_of_employees
FROM employees;

Output:

number_of_employees
10

2. SELECT SUM (Salary) AS tot_salary, department
FROM employees
WHERE department = 'IT';
GROUP BY department

Output:

tot_salary	department
220 000	IT

3. SELECT AVG (Salary) AS Average_salary, department
FROM employees
WHERE department = 'HR';

Output:

Average_salary	department
49500	HR

4. SELECT MIN (Salary) AS min_salary
FROM employees;

Output:

min_salary
48000

SELECT MAX (Salary) AS max_salary
FROM employees;

Output:

max_salary
62000

✓ SELECT
from max(price) AS max - price
dept... Bright...
amt

5. SELECT COUNT(id) AS tot_employees
first_name, department, sum(salary) AS tot_sal
from employees
GROUP BY department;

dept:	tot_employees	department	tot_sal
	4	IT	220 000
	2	HR	99 000
	2	Finance	119 000
	2	Marketing	105 000

6. SELECT COUNT(id) AS tot_employees, city
from employees
GROUP BY city;

dept	tot_employees	city
	2	New York
	3	Chicago
	2	Los Angeles
	2	San Francisco
	1	Houston

7. SELECT AVG(salary) AS average_salary, department
from employees
GROUP BY department
ORDER BY average_salary DESC;

dept:	Average_salary	department
	55 000	IT
	54 500	Finance
	52 500	Marketing
	49 500	HR

8. SELECT sum(salary) AS tot-salary, department
 From employees
 GROUP BY department
 HAVING tot^{sum(salary)} > 100000;

Do I have to
 put the aggregate
 function or
 what it is referred/
 labelled as?

dept: <u>tot-salary</u>	<u>department</u>
220000	IT
119000	Finance
105000	Marketing

9. SELECT count^{some}(cid) AS no-of-employees, city
 From employees
 GROUP BY city
 ORDER BY no.of-employees DESC
 HAVING count^{some}(cid) > 1;

→ Does ORDER BY
 have to be
 written after
 HAVING?

dept: <u>no-of-employees</u>	<u>city</u>
3	Chicago
2	New York
2	Los Angeles
2	San Francisco

10. SELECT sum^{as} avg(salary) AS avg-salary, department
 From employees
 GROUP BY department
 LIMIT 1;

dept: <u>Avg-salary</u>	<u>department</u>
59500	Finance