12. SELECT department,
AVG(salary) AS avg_salary
FROM salaries
GROUP BY department
HAVING AVG(salary) > 55000;

department	avg_salary
IT	61000
finance	70000

13. SELECT employee_id,
name,
salary,
bonus,
(salary + bonus) AS total_compensation
FROM salaries
WHERE (salary + bonus) < 60000;

Employee_id	name	salary	bonus	Total_compensation
1	Tom	60000	5000	65000
3	Spike	70000	6000	76000
4	Tyke	62000	5500	67500

14. SELECT department,
SUM(budget) AS total_budget,
AVG(budget) AS avg_budget
FROM projects
GROUP BY department
HAVING AVG(budget) > 70000;

department	Total_budget	Avg_budget
IT	270 000	135 000
Finance	80 000	80 000

15.
```
SELECT  project_id,
        project_name,
        department,
        budget
FROM    projects
WHERE   budget BETWEEN 50 000 AND 120 000
AND     department NOT IN (Marketing);
```

project_id	project_name	department	budget
1	AI App	IT	120 000
2	Payroll System	Finance	80 000
5	HR Portal	HR	50 000

9. SELECT MAX(grade) AS max-grade,
MIN(grade) AS min-grade,
AVG(grade) AS avg-grade
FROM enrollments;

Max-grade	Min-grade	Avg-grade
90	78	84.6

10. SELECT course-id,
COUNT(*) AS enrollment-count
FROM enrollments
GROUP BY course-id;

course_id	Enrollment_count
101	1
102	1
103	1
104	1
105	1

11. SELECT department,
Sum(salary) AS total-salary,
Sum(bonus) AS total-bonus
FROM salaries
GROUP BY department;

department	Total-salary	Total-bonus
IT	122 000	10 500
HR	109 000	7 500
Finance	70 000	6000

department	Credits
IT	11

7. SELECT course-id,
course_name,
department,
Credits
FROM courses
WHERE credits != 4

course-id	course_name	department	credits
101	SQL Basics	IT	3
104	Excel	Finance	2
105	Statistics	HR	3

8. SELECT course-id,
course_name,
credits
FROM courses
ORDER BY credits DESC
LIMIT 3;

course-id	Course_name	Credits
102	Python	4
103	Data Science	4
101	SQL Basics	3

Exercise 2 - Aggregate Functions

1. SELECT DISTINCT department
FROM students;

department
IT
HR
Finance.

2. SELECT department,
AVG(age) AS avg-age
FROM students
GROUP BY department;

department	avg-age
IT	20,5
HR	22,0
Finance	23,0

3. SELECT department,
COUNT(*) AS student-count
FROM students
GROUP BY department
HAVING COUNT(*) > 1

department	student-count
IT	2
HR	2

4. SELECT student_id,
name,
age,
department
FROM students
WHERE age BETWEEN 21 AND 23;

student_id	name	age	department
2	Bob	22	HR
3	Charlie	21	IT
4	Diana	23	Finance
5	Eve	22	HR

5. SELECT student_id,
name,
age,
department
FROM students
WHERE age > 21
AND department IN ('IT', 'HR');

student_id	name	age	department
2	Bob	22	HR
5	Eve	22	HR

6. SELECT department,
SUM(credits) AS total_credits
FROM courses
GROUP BY department
HAVING SUM(credits) > 5;