

CM1603 Database Systems

Tutorial 9 – Advance SQL Queries

Write suitable SQL queries using the company database created for the MegaFirm case study.

Exercise 1

- a) Write a query that displays a list of department names alongside the cities and countries where these departments are located for all departments in Cambridge.
- b) Write a query that displays a list of department names alongside the full names and salaries of the employees who work in those departments but only for the employees who earn more than 45K and for the departments whose name start with the letter M.
- c) Write a query that displays a list of employee surnames, salaries and job roles for those employees who work in the IT department.
- d) Write a query that displays a list of employee surnames, first names, salaries, job roles with the names of the departments where they work and the cities and countries where these departments are located.
- e) Write a query that displays a list of departments alongside the full names, hire dates and salaries of the employees who work in those departments. To this list add the names of the departments who do not have any employees.
- f) Write a query that displays a list of departments alongside the full names, hire dates and salaries of the employees who work in those departments. To this list add the names of the employees who do not work in a department.

Exercise 2

- a) Write a query that displays the lowest, highest, and average salary in department 30. Label the columns “Minimum”, “Maximum” and “Average”.
- b) Write a query that displays the lowest, highest, and average salary for the staff who have a job id that is either 907, 908, 909, 910 or 911 and who are actually allocated to work in a department. Label the columns “Minimum”, “Maximum” and “Average”.
- c) Write a query that displays department IDs and FOR EACH department, the lowest, highest, and average salary. Label the columns “Dept Id”, “Minimum”, “Maximum” and “Average”.
- d) Write a query that displays the average salary for all employees with IDs 1022, 1023, 1024 and 1025. Label column as “Average Salary”.