

TERMWORK 1

Simple Query Manipulation

Objective: The objective of simple query manipulation in SQL is to retrieve and organize data from a database so it becomes meaningful and useful for decision making. Problem Statement 1: Create the Employees table

Problem Statement 1: Insert data into Employees table

Problem Statement 1.1 Retrieves all records from the Employee's table

EMP_ID	EMP_NAME	SALARY	DEPT_ID	JOIN_DATE
101	Alice Johnson	50000	1	15-JAN-23
102	Bob Smith	60000	2	10-JUN-22
103	Charlie Brown	70000	3	25-SEP-21
104	David Williams	55000	1	05-DEC-22
105	Eve Carter	65000	2	20-MAR-23

Problem Statement 1.2 Retrieves only employee names and their salaries

EMP_NAME	SALARY
Alice Johnson	50000
Bob Smith	60000
Charlie Brown	70000
David Williams	55000
Eve Carter	65000

Problem Statement 1.3 Retrieves employees who have a salary greater than 60,000

EMP_ID	EMP_NAME	SALARY
103	Charlie Brown	70000
105	Eve Carter	65000

Problem Statement 1.4 Retrieves employees in department 1 with a salary greater than 50,000

EMP_ID	EMP_NAME
104	David Williams

Problem Statement 1.5 Retrieves unique department IDs from the employee's table

Query result

Script output

DBMS output

Explain Plan

SQL history

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Execution time: 0.001 seconds

	DEPT_ID
1	1
2	2
3	3

Problem Statement 1.6 Retrieves all employees sorted by salary in ascending order.

EMP_ID	EMP_NAME	SALARY
101	Alice Johnson	50000
104	David Williams	55000
102	Bob Smith	60000
105	Eve Carter	65000
103	Charlie Brown	70000

Problem Statement 1.7 Retrieves all employees sorted by joining date in descending order

EMP_ID	EMP_NAME	JOIN_DATE
105	Eve Carter	20-MAR-23
101	Alice Johnson	15-JAN-23
104	David Williams	05-DEC-22
102	Bob Smith	10-JUN-22
103	Charlie Brown	25-SEP-21

Problem Statement 1.8 Retrieves all employees who either belong to department 1 or have a salary greater than 60,000

EMP_ID	EMP_NAME
101	Alice Johnson
103	Charlie Brown
104	David Williams
105	Eve Carter

Problem Statement 1.9 Sorts employees first by dept_id in ascending order and then by salary in descending order within each department.

EMP_ID	EMP_NAME	SALARY
102	Bob Smith	60000
103	Charlie Brown	70000
104	David Williams	55000
105	Eve Carter	65000

Problem Statement 1.10 Retrieves employees whose salaries are between 55,000 and 70,000

EMP_ID	EMP_NAME	DEPT_ID	SALARY
104	David Williams	1	55000
101	Alice Johnson	1	50000
105	Eve Carter	2	65000
102	Bob Smith	2	60000
103	Charlie Brown	3	70000

Problem Statement 1.11 Retrieves employees who belong to department 1 or 3

EMP_ID	EMP_NAME	DEPT_ID
101	Alice Johnson	1
103	Charlie Brown	3
104	David Williams	1