* 1. Write an SQL query to retrieve the names of employees along with their department names. If an employee doesn't belong to any department, the department name should be shown as "Unassigned"

CREATE DATABASE EMPLOYEE;

USE EMPLOYEE;

CREATE TABLE EMPLOYEE\_TABLE(

EMPLOYE\_ID INT PRIMARY KEY,

NAME VARCHAR(50),

DEPARTMENT VARCHAR(50),

HIRE\_DATE INT NOT NULL);

CREATE TABLE SALARY\_TABLE(

EMPLOYE\_ID INT PRIMARY KEY,

SALARY INT,

EFFECTIVE\_DATE INT NOT NULL);

SELECT

e.NAME AS employee\_name,

COALESCE(e.DEPARTMENT, 'Unassigned') AS department\_name

FROM

EMPLOYEE\_TABLE e;

2. Write an SQL query to find the total number of employees in each department

To find the total number of employees in each department, you can use the **COUNT** function along with the **GROUP BY** clause. Assuming you have a **DEPARTMENT** column in your **EMPLOYEE\_TABLE**, you can use the following SQL query:

This query groups the employees by department and counts the number of employees in each group. The result will show the department names along with the total number of employees in each department.

SELECT

DEPARTMENT,

COUNT(\*) AS total\_employees

FROM

EMPLOYEE\_TABLE

GROUP BY

DEPARTMENT;

* 3. Write an SQL query to find departments where the average salary is greater than 5500.00.

To find departments where the average salary is greater than 5500.00, you can use the **AVG** function along with the **GROUP BY** and **HAVING** clauses. Assuming you have a **SALARY\_TABLE** with a **SALARY** column and a **DEPARTMENT** column in your **EMPLOYEE\_TABLE**, you can use the following SQL query

This query joins the **EMPLOYEE\_TABLE** with the **SALARY\_TABLE** on the employee ID and calculates the average salary for each department using the **AVG** function. The **GROUP BY** clause groups the results by department, and the **HAVING** clause filters the results to include only those departments where the average salary is greater than 5500.00.

SELECT

e.DEPARTMENT,

AVG(s.SALARY) AS average\_salary

FROM

EMPLOYEE\_TABLE e

JOIN

SALARY\_TABLE s ON e.EMPLOYE\_ID = s.EMPLOYE\_ID

GROUP BY

e.DEPARTMENT

HAVING

AVG(s.SALARY) > 5500.00;

* 4. Write an SQL query to retrieve the names and hire dates of employees hired after '2022-03-01'.

This query uses the **WHERE** clause to filter the results and only includes rows where the **HIRE\_DATE** is after '2022-03-01'. Adjust the date format as needed based on the actual format used in our database.

SELECT

NAME AS employee\_name,

HIRE\_DATE

FROM

EMPLOYEE\_TABLE

WHERE

HIRE\_DATE > '2022-03-01';

* 5. Write an SQL query to calculate the average salary for each employee along with their salary, effective date, and the difference between their salary and the average salary.

Assuming we have **EMPLOYEE\_TABLE** and **SALARY\_TABLE** tables with a common **EMPLOYE\_ID.**

SELECT

s.EMPLOYE\_ID,

e.NAME AS employee\_name,

s.SALARY,

s.EFFECTIVE\_DATE,

s.SALARY - avg\_salary.average\_salary AS salary\_difference

FROM

SALARY\_TABLE s

JOIN

EMPLOYEE\_TABLE e ON s.EMPLOYE\_ID = e.EMPLOYE\_ID

JOIN

(

SELECT

EMPLOYE\_ID,

AVG(SALARY) AS average\_salary

FROM

SALARY\_TABLE

GROUP BY

EMPLOYE\_ID

) avg\_salary ON s.EMPLOYE\_ID = avg\_salary.EMPLOYE\_ID;