IT1223 (P) - Database Management Systems (P)
Department of Physical Science
University of Vavuniya

Work Sheet - 04

Question 1

Use the existing database **it1223db** for the below table operations:

ID	Name	Age	Gender	Salary	Join_Date	Last_Promotion_Date
1	Henry	42	Male	78000	2017-03-15	2020-10-20
2	Evelyn	29	Female	59000	2019-01-10	2022-07-05
3	Jacob	37	Male	67000	2024-02-28	2024-08-10
4	Abigail	23	Female	50000	2023-06-05	2024-04-15
5	Noah	31	Male	66000	2018-08-20	2022-03-25
6	Lily	25	Female	52000	2020-07-30	2023-02-10
7	Samuel	43	Male	79000	2016-12-12	2020-09-28
8	Grace	28	Female	57000	2019-10-22	2022-06-15

1. Create a MySQL table named "Employee_Details" with appropriate fields to store employee information.
2. Explain how you would define the structure of the "Employee_Details" table in MySQL, specifying the data types and constraints for each field.
3. What SQL statement would you use to insert records into the "Employee_Details" table?
4. How would you retrieve and view the data that has been inserted into the "Employee_Details" table using MySQL?
5. Write a SQL query to update the name of the employee with ID 30 to 'Aria Smith' in the 'Employee_Details' table.
6. Select male employees whose last promotion date is before '2022-01-01' or whose salary is less than $55,000.
7. Select employees with a salary greater than $60,000 and who joined after 2020-01-01, ordered by salary in descending order.
8. Select employees whose age is either 25, 30, or 35 and order the results by Join_Date in ascending order.
9. Select female employees with a salary between $50,000 and $70,000 OR male employees with a salary greater than $70,000, ordered by age in ascending order.
10. Calculate the number of days an employee has been with the company based on their Join_Date.

11. Calculate the number of months since the last promotion for each employee.
12. Calculate the age of each employee in months.
13. Assuming the retirement age for employees is 60 years, write a MySQL query to determine the retirement date for each employee in the 'Employee_Details' table.
14. Identify the employee closest to retirement age who hasn't retired yet.
15. Determine the average retirement age of employees in the company.
16. Calculate the average salary of male and female employees separately.
17. Select the top 3 highest-paid employees.
18. Find employees who have joined in the years 2020 and 2021.
19. Count the number of employees in each age group with at least two employees using the HAVING clause.
20. Find the employee(s) with the highest salary.
21. Determine the age difference between the youngest and oldest employees.
22. Identify the employee(s) with the earliest join date.
23. Find the employee(s) with the lowest salary among those who joined in the year 2023.
24. Identify the employee(s) who have the same age as the youngest employee and have a salary higher than the average salary of all employees.
25. Find the employee(s) who have joined after the employee(s) with the highest salary.