

Assignment 8

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Task 1: Using Date and Time Functions

Question: Write a SQL query to retrieve all employees who were hired within the last 30 days from the current date.

Instructions:

1. Use the SELECT statement to choose all relevant columns from the employees table.
2. Utilize a date function such as CURRENT_DATE or GETDATE() depending on your SQL dialect.
3. Apply date arithmetic to filter rows where the hire date is within the last 30 days.
4. Use the WHERE clause to compare hire dates.

Answer :

```
SELECT *  
FROM employees  
WHERE hire_date >= CURRENT_DATE - INTERVAL 30 DAY;  
..  
WHERE hire_date >= GETDATE() - 30;
```

Task 2: Creating and Using a Stored Procedure

Question: Create a stored procedure named sp_get_employee_hours that retrieves the first name, last name, and total hours worked on projects for a given employee ID.

Instructions:

1. Define the stored procedure using the CREATE PROCEDURE statement.
2. Include a parameter for the employee ID (emp_id).
3. Use a SELECT statement to fetch the required columns (fname, lname, total_hours) from the employees and works_on tables.
4. Join the tables on the appropriate keys (e.g., SSN = ESSN).
5. Sum the hours worked using the SUM() function and group by employee details.

Answer :

```
CREATE PROCEDURE sp_get_employee_hours(IN emp_id INT)
BEGIN
    SELECT e.fname, e.lname, SUM(w.hours) AS total_hours
    FROM employees e
    JOIN works_on w ON e.ssn = w.essn
    WHERE e.emp_id = emp_id
    GROUP BY e.fname, e.lname;
END;
```

Task 3: Creating a Stored Procedure for Employee Count by Department

Question: Create a stored procedure named `sp_department_employee_count` that retrieves the

department ID, department name, and the number of employees in each department, but only for departments with more than 5 employees.

Instructions:

1. Define the stored procedure using the `CREATE PROCEDURE` statement.
2. Use a `SELECT` statement to fetch the department ID, department name, and count of employees.
3. Use a `JOIN` to connect the departments and employees tables on the department ID.
4. Use the `GROUP BY` clause to group results by department.
5. Apply the `HAVING` clause to filter departments with more than 5 employees.

Answer :

```
CREATE PROCEDURE sp_department_employee_count()
BEGIN
    SELECT d.dept_id, d.dept_name, COUNT(e.emp_id) AS num_employees
    FROM departments d
    JOIN employees e ON d.dept_id = e.dept_id
    GROUP BY d.dept_id, d.dept_name
    HAVING COUNT(e.emp_id) > 5;
END;
```