**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.

SELECT \*

FROM employees

WHERE hire\_date >= CURRENT\_DATE - INTERVAL '30 days';

**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.

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.SSN = 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.

CREATE PROCEDURE sp\_department\_employee\_count ()

BEGIN

SELECT d.department\_id, d.department\_name, COUNT(e.SSN) AS employee\_count

FROM departments d

JOIN employees e ON d.department\_id = e.department\_id

GROUP BY d.department\_id, d.department\_name

HAVING COUNT(e.SSN) > 5;

END;