

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.

Answer:

```
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.

Answer:

```
DELIMITER $$
```

```
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$$
```

```
DELIMITER ;
```

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.

Answer:

```
DELIMITER $$
```

```
CREATE PROCEDURE sp_department_employee_count()
BEGIN
    SELECT d.department_id, d.department_name, COUNT(e.employee_id) 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.employee_id) > 5;
END$$
```

```
DELIMITER ;
```

Task 4: Creating a Stored Procedure to Update Salary Based on Rating

Question:

Create a stored procedure named UPDATE_SAL that updates an employee's salary based on their rating. If the rating is 1, increase the salary by 10%. Otherwise, increase the salary by 5%.

Answer:

```
DELIMITER $$
```

```
CREATE PROCEDURE UPDATE_SAL(IN empNum CHAR(6), IN rating SMALLINT)
```

```
BEGIN
```

```
    UPDATE employees
```

```
    SET salary =
```

```
        CASE
```

```
            WHEN rating = 1 THEN salary * 1.10
```

```
            ELSE salary * 1.05
```

```
        END
```

```
    WHERE emp_id = empNum;
```

```
END$$
```

```
DELIMITER ;
```