Store Procedures in SNOWFLAKE
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Prerequisite: Create a worksheet with the name storedprocedure

step 1) Create Database and Schema

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CREATE OR REPLACE DATABASE EMPLOYEE_DB;

CREATE OR REPLACE SCHEMA EMPLOYEE_SCHEMA;
```

step 2) Create Employee Table

```
-- Create Table
CREATE OR REPLACE TABLE EMPLOYEE_SCHEMA.EMPLOYEE (
    EMP_ID NUMBER AUTOINCREMENT,
    FIRST_NAME STRING,
    LAST_NAME STRING,
    EMAIL STRING,
    DEPARTMENT STRING,
    SALARY NUMBER(10,2),
    JOIN_DATE DATE,
    PRIMARY KEY (EMP_ID)
);
```

step 3)

```
CREATE OR REPLACE PROCEDURE
EMPLOYEE_SCHEMA.ADD_EMPLOYEES_FROM_JSON(EMPLOYEES_JSON STRING)
RETURNS STRING
LANGUAGE SQL
AS
$$
BEGIN
    INSERT INTO EMPLOYEE_SCHEMA.EMPLOYEE (FIRST_NAME, LAST_NAME, EMAIL,
DEPARTMENT, SALARY, JOIN_DATE)
    SELECT
        value:First_Name::STRING,
        value:Last_Name::STRING,
        value:Email::STRING,
        value:Department::STRING,
        value:Salary::NUMBER(10,2),
        value:Join_Date::DATE
    FROM
        TABLE(FLATTEN(INPUT => PARSE_JSON(:EMPLOYEES_JSON)));

    RETURN 'Employees Added Successfully';
END;
$$;

CALL EMPLOYEE_SCHEMA.ADD_EMPLOYEES_FROM_JSON('[
  {"First_Name":"John", "Last_Name":"Doe", "Email":"john.doe@example.com",
"Department":"IT", "Salary":75000.00, "Join_Date":"2025-01-10"},
  {"First_Name":"Jane", "Last_Name":"Smith", "Email":"jane.smith@example.com",
"Department":"HR", "Salary":68000.00, "Join_Date":"2025-02-15"},
  {"First_Name":"Mike", "Last_Name":"Brown", "Email":"mike.brown@example.com",
"Department":"Finance", "Salary":72000.00, "Join_Date":"2025-03-01"},
  {"First_Name":"Sara", "Last_Name":"Davis", "Email":"sara.davis@example.com",
"Department":"Marketing", "Salary":69000.00, "Join_Date":"2025-03-05"},
  {"First_Name":"Chris", "Last_Name":"Wilson",
"Email":"chris.wilson@example.com", "Department":"Sales", "Salary":71000.00,
"Join_Date":"2025-04-01"},
  {"First_Name":"Laura", "Last_Name":"Taylor",
```

```
"Email":"laura.taylor@example.com", "Department":"IT", "Salary":77000.00,
"Join_Date":"2025-04-10"},
  {"First_Name":"Robert", "Last_Name":"Anderson",
"Email":"robert.anderson@example.com", "Department":"HR", "Salary":66000.00,
"Join_Date":"2025-05-12"},
  {"First_Name":"Emily", "Last_Name":"Thomas",
"Email":"emily.thomas@example.com", "Department":"Finance", "Salary":73000.00,
"Join_Date":"2025-05-20"},
  {"First_Name":"Daniel", "Last_Name":"Jackson",
"Email":"daniel.jackson@example.com", "Department":"Marketing",
"Salary":64000.00, "Join_Date":"2025-06-15"},
  {"First_Name":"Sophia", "Last_Name":"White",
"Email":"sophia.white@example.com", "Department":"Sales", "Salary":70000.00,
"Join_Date":"2025-06-20"},
  {"First_Name":"Matthew", "Last_Name":"Harris",
"Email":"matthew.harris@example.com", "Department":"IT", "Salary":76000.00,
"Join_Date":"2025-07-01"},
  {"First_Name":"Olivia", "Last_Name":"Martin",
"Email":"olivia.martin@example.com", "Department":"HR", "Salary":68000.00,
"Join_Date":"2025-07-10"},
  {"First_Name":"Luke", "Last_Name":"Thompson",
"Email":"luke.thompson@example.com", "Department":"Finance", "Salary":75000.00,
"Join_Date":"2025-08-05"},
  {"First_Name":"Ava", "Last_Name":"Garcia", "Email":"ava.garcia@example.com",
"Department":"Marketing", "Salary":66000.00, "Join_Date":"2025-08-12"},
  {"First_Name":"Ethan", "Last_Name":"Martinez",
"Email":"ethan.martinez@example.com", "Department":"Sales", "Salary":72000.00,
"Join_Date":"2025-09-01"},
  {"First_Name":"Isabella", "Last_Name":"Robinson",
"Email":"isabella.robinson@example.com", "Department":"IT", "Salary":78000.00,
"Join_Date":"2025-09-15"},
  {"First_Name":"James", "Last_Name":"Clark", "Email":"james.clark@example.com",
"Department":"HR", "Salary":67000.00, "Join_Date":"2025-10-10"},
  {"First_Name":"Mia", "Last_Name":"Rodriguez",
"Email":"mia.rodriguez@example.com", "Department":"Finance", "Salary":74000.00,
"Join_Date":"2025-10-20"},
  {"First_Name":"Benjamin", "Last_Name":"Lewis",
"Email":"benjamin.lewis@example.com", "Department":"Marketing",
"Salary":65000.00, "Join_Date":"2025-11-01"},
  {"First_Name":"Charlotte", "Last_Name":"Lee",
"Email":"charlotte.lee@example.com", "Department":"Sales", "Salary":71000.00,
"Join_Date":"2025-11-15"}
]');
```


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Question

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Step 1: Create the Stored Procedure
Q1.
Write a stored procedure named UPDATE_SALARY_BY_DEPT inside the EMPLOYEE_SCHEMA schema.

It should take two parameters:

DEPT_NAME (type: STRING)

INCREMENT_PCT (type: FLOAT)

It should increase the salary of all employees in the given department by the given percentage.

Tip: Use the UPDATE command inside the procedure.

Step 2: Check Current Salaries Before Update
Q2.
Before running the procedure, check and list the current salary of all employees in the 'IT' department.

Write a query to select EMP_ID, FIRST_NAME, and SALARY for employees from the IT department.

Save or note down these salary values.

SQL Hint: Use a SELECT query with WHERE DEPARTMENT = 'IT'.

Step 3: Run the Procedure
Q3.
Execute your stored procedure to increase the salary by 5% for all employees in the 'IT' department.

Write the CALL command to invoke the procedure.

Make sure the procedure runs without any errors and returns a success message.

SQL Hint: Use CALL EMPLOYEE_SCHEMA.UPDATE_SALARY_BY_DEPT('IT', 5);.

Step 4: Check Updated Salaries After Update
Q4.
After running the procedure, check again the salary of employees in the 'IT' department.

Write the same SELECT query again. (After running this select query,Test your answer here)