# Task 2: Data Insertion and Handling Nulls

Objective: Practice inserting, updating, and deleting data.

Tools: DB Fiddle / SQLiteStudio

Deliverables: SQL file with INSERT, UPDATE, DELETE statements

Hints/Mini Guide:

1. Use INSERT INTO for adding rows

2. Handle missing values using NULL or default

3. Use UPDATE and DELETE with WHERE conditions

Outcome: A populated database with clean and consistent data

## SQL Script

-- Step 1: Create a sample table

CREATE TABLE Employees (

EmployeeID INTEGER PRIMARY KEY AUTOINCREMENT,

FirstName TEXT NOT NULL,

LastName TEXT NOT NULL,

Email TEXT UNIQUE,

Phone TEXT,

HireDate DATE DEFAULT CURRENT\_DATE,

Department TEXT

);

-- Step 2: Insert data with and without missing fields

INSERT INTO Employees (FirstName, LastName, Email, Phone, Department)

VALUES

('John', 'Doe', 'john.doe@example.com', '555-1234', 'HR'),

('Jane', 'Smith', 'jane.smith@example.com', NULL, 'Finance'),

('Robert', 'Brown', 'robert.brown@example.com', '555-5678', NULL),

('Emily', 'Davis', NULL, NULL, 'IT'); -- Email missing (NULL)

-- Step 3: Update a row to fill in missing data

UPDATE Employees

SET Email = 'emily.davis@example.com'

WHERE FirstName = 'Emily' AND LastName = 'Davis';

-- Step 4: Update phone number for an employee

UPDATE Employees

SET Phone = '555-9999'

WHERE Email = 'jane.smith@example.com';

-- Step 5: Delete an employee who doesn't have an email

DELETE FROM Employees

WHERE Email IS NULL;

-- Optional: View current data

SELECT \* FROM Employees;

## Output: Final Employees Table

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| EmployeeID | FirstName | LastName | Email | Phone | HireDate | Department |
| 1 | John | Doe | john.doe@example.com | 555-1234 | 2025-06-25 | HR |
| 2 | Jane | Smith | jane.smith@example.com | 555-9999 | 2025-06-25 | Finance |
| 3 | Robert | Brown | robert.brown@example.com | 555-5678 | 2025-06-25 | None |
| 4 | Emily | Davis | emily.davis@example.com | None | 2025-06-25 | IT |