**Assignment 7**

**Prepare a series of SQL statements to INSERT new records into the library tables, UPDATE existing records with new information, and DELETE records based on specific criteria. Include BULK INSERT operations to load data from an external source.**

**Assumptions**

* The database contains the following tables: books, authors, and members.
* The books table has columns: book\_id, title, author\_id, published\_date.
* The authors table has columns: author\_id, name.
* The members table has columns: member\_id, name, membership\_date.

**Insert New Records**

1. **Insert a new book:**

INSERT INTO books (book\_id, title, author\_id, published\_date)

VALUES (1, 'To Kill a Mockingbird', 1, '1960-07-11');

1. **Insert a new author:**

INSERT INTO authors (author\_id, name)

VALUES (1, 'Harper Lee');

1. **Insert a new member:**

INSERT INTO members (member\_id, name, membership\_date)

VALUES (1, 'John Doe', '2024-05-01');

**Update Existing Records**

1. **Update the title of a book:**

UPDATE books

SET title = 'To Kill a Mockingbird - Revised Edition'

WHERE book\_id = 1;

1. **Update the name of an author:**

UPDATE authors

SET name = 'Nelle Harper Lee'

WHERE author\_id = 1;

1. **Update a member's name:**

UPDATE members

SET name = 'Jonathan Doe'

WHERE member\_id = 1;

**Delete Records Based on Specific Criteria**

1. **Delete a book by its ID:**

DELETE FROM books

WHERE book\_id = 1;

1. **Delete an author if no books are associated:**

DELETE FROM authors

WHERE author\_id = 1

AND author\_id NOT IN (SELECT author\_id FROM books);

1. **Delete a member by their ID:**

DELETE FROM members

WHERE member\_id = 1;

**Bulk Insert Operations from an External Source**

Assuming we have a CSV file named books\_data.csv with the following columns: book\_id, title, author\_id, published\_date.

1. **Load data from CSV into the books table**

LOAD DATA INFILE '/path/to/books\_data.csv'

INTO TABLE books

FIELDS TERMINATED BY ','

ENCLOSED BY '"'

LINES TERMINATED BY '\n'

IGNORE 1 ROWS

(book\_id, title, author\_id, published\_date);

This script should be executed in your SQL client tool that supports these SQL commands. Adjust the file path in the LOAD DATA INFILE statement as necessary to match the location of your CSV file.