create database q6;

use q6;

CREATE TABLE Library (

Book\_ID INT PRIMARY KEY,

Title VARCHAR(255),

Author VARCHAR(255),

Published\_Year INT,

Genre VARCHAR(100)

);

CREATE TABLE Library\_Audit (

Audit\_ID INT PRIMARY KEY AUTO\_INCREMENT,

Book\_ID INT,

Title VARCHAR(255),

Author VARCHAR(255),

Published\_Year INT,

Genre VARCHAR(100),

Action\_Type VARCHAR(10), -- 'UPDATE' or 'DELETE'

Action\_Timestamp DATETIME DEFAULT CURRENT\_TIMESTAMP

);

DELIMITER $$

CREATE TRIGGER Library\_Audit\_Trigger\_Update

AFTER UPDATE ON Library

FOR EACH ROW

BEGIN

INSERT INTO Library\_Audit (Book\_ID, Title, Author, Published\_Year, Genre, Action\_Type)

VALUES (OLD.Book\_ID, OLD.Title, OLD.Author, OLD.Published\_Year, OLD.Genre, 'UPDATE');

END $$

DELIMITER ;

DELIMITER $$

CREATE TRIGGER Library\_Audit\_Trigger\_Delete

AFTER DELETE ON Library

FOR EACH ROW

BEGIN

INSERT INTO Library\_Audit (Book\_ID, Title, Author, Published\_Year, Genre, Action\_Type)

VALUES (OLD.Book\_ID, OLD.Title, OLD.Author, OLD.Published\_Year, OLD.Genre, 'DELETE');

END $$

DELIMITER ;

INSERT INTO Library (Book\_ID, Title, Author, Published\_Year, Genre)

VALUES

(1, '1984', 'George Orwell', 1949, 'Dystopian'),

(2, 'To Kill a Mockingbird', 'Harper Lee', 1960, 'Fiction'),

(3, 'The Great Gatsby', 'F. Scott Fitzgerald', 1925, 'Classic');

UPDATE Library

SET Title = '1984 (Updated)', Author = 'G. Orwell', Published\_Year = 1950

WHERE Book\_ID = 1;

DELETE FROM Library

WHERE Book\_ID = 2;

SELECT \* FROM Library\_Audit;