

PL/Sql-8 Write a Row Level Before and After Trigger on Library table. The System should keep track of the records that are being updated or deleted. The old value of updated or deleted records should be added in Library_Audit table.

```
CREATE TABLE lib (
    BookID INT PRIMARY KEY,
    BookName VARCHAR(100),
    Author VARCHAR(50),
    Status VARCHAR(20)
);

CREATE TABLE Library_Audit (
    AuditID INT AUTO_INCREMENT PRIMARY KEY,
    BookID INT,
    BookName VARCHAR(100),
    Author VARCHAR(50),
    Status VARCHAR(20),
    ActionType VARCHAR(10), -- 'UPDATE' or 'DELETE'
    ActionDate DATETIME
);

INSERT INTO lib VALUES
(1, 'C Programming', 'Dennis Ritchie', 'Available'),
(2, 'Python Programming', 'Guido van Rossum', 'Available'),
(3, 'Java Programming', 'James Gosling', 'Available');

#Create BEFORE UPDATE Trigger
DELIMITER //

CREATE TRIGGER before_lib_update
BEFORE UPDATE ON lib
FOR EACH ROW
BEGIN
    INSERT INTO Library_Audit(BookID, BookName, Author, Status, ActionType,
ActionDate)
        VALUES (OLD.BookID, OLD.BookName, OLD.Author, OLD.Status, 'UPDATE', NOW());
END //

DELIMITER ;

#Create BEFORE DELETE Trigger
DELIMITER //

CREATE TRIGGER before_lib_delete
BEFORE DELETE ON lib
FOR EACH ROW
BEGIN
    INSERT INTO Library_Audit(BookID, BookName, Author, Status, ActionType,
ActionDate)
        VALUES (OLD.BookID, OLD.BookName, OLD.Author, OLD.Status, 'DELETE', NOW());
END //

DELIMITER ;
```

```
-- Update a book status
UPDATE lib SET Status = 'Issued' WHERE BookID = 1;

-- Delete a book
DELETE FROM lib WHERE BookID = 2;

#Check Audit Table
SELECT * FROM Library_Audit;

#Check Current lib Table
SELECT * FROM lib;
```