***#Assignment A7-SQL#***

**Problem Statement:** Database Trigger (All Types: Row level and Statement level triggers, Before and After Triggers).

Write a database 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.

**Source Code:**

CREATE TABLE Borrower\_s (

BorrowerID NUMBER PRIMARY KEY,

BorrowerName VARCHAR2(100) NOT NULL,

IssueDate DATE NOT NULL,

BookTitle VARCHAR2(100) NOT NULL,

BookStatus VARCHAR2(1) CHECK (BookStatus IN ('I', 'R')) -- I for Issued, R for Returned

);

SELECT \* FROM BORROWER\_S;

DROP TABLE LIBRARY\_AUDIT\_S;

CREATE TABLE library\_audit\_s (

rollin INT,

name CHAR(25),

dateofissue DATE,

nameofbook CHAR(25),

status CHAR(1),

ts TIMESTAMP

);

SELECT \* FROM LIBRARY\_AUDIT\_S;

CREATE OR REPLACE TRIGGER trg\_after\_update\_borrower

AFTER UPDATE ON Borrower\_s

FOR EACH ROW

BEGIN

INSERT INTO library\_audit\_s (rollin, name, dateofissue, nameofbook, status, ts)

VALUES (

:OLD.BorrowerID,

:OLD.BorrowerName,

:OLD.IssueDate,

:OLD.BookTitle,

:OLD.BookStatus,

SYSTIMESTAMP

);

END;

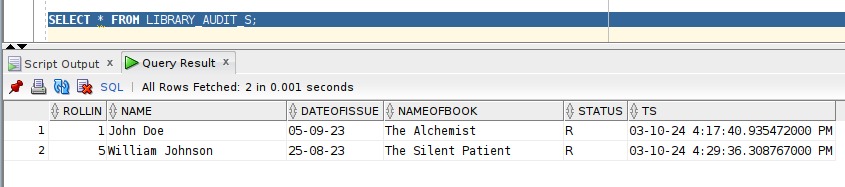
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UPDATE Borrower\_s

SET BookStatus = 'I'

WHERE BorrowerID = 1;

**Output:**



Library Audit Table After Updating