ASSIGNMENT – 4

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COURSE: DATABASE MANAGEMENT SYSTEM

COURSE CODE: CSA0593

SCENERIO:

Create a stored procedure that: Takes a user\_id and book\_id as input. Checks if the user is authorized to list the book (i.e., the book belongs to the user). Lists the book for sale with a starting price and auction end time. If successful, return a confirmation message.

SQL

CREATE PROCEDURE list\_book\_for\_sale(IN p\_user\_id INT, IN p\_book\_id INT)

BEGIN

DECLARE v\_book\_owner INT;

-- Check if the book belongs to the user

SELECT author\_id INTO v\_book\_owner FROM books WHERE book\_id = p\_book\_id;

IF v\_book\_owner = p\_user\_id THEN

-- List the book for sale

INSERT INTO auctions (item\_id, seller\_id, starting\_price, end\_time)

VALUES (p\_book\_id, p\_user\_id, /\* Starting Price \*/, /\* End Time \*/);

SELECT 'Book listed for sale successfully.' AS message;

ELSE

SIGNAL SQLSTATE '45000' SET MESSAGE\_TEXT = 'You are not authorized to list this book.';

END IF;

END;

**Explanation:**

1. Parameter Declaration: The procedure takes two input parameters: p\_user\_id and p\_book\_id.
2. Book Ownership Check: The SELECT statement retrieves the author ID of the book and stores it in the v\_book\_owner variable. This is compared with the provided p\_user\_id to verify ownership.
3. Listing the Book: If the user is authorized, an INSERT statement is executed to add a new auction record for the book. You'll need to replace /\* Starting Price \*/ and /\* End Time \*/ with the actual values or expressions to calculate them.
4. Confirmation Message: A SELECT statement is used to return a confirmation message indicating successful listing.
5. Error Handling: If the user is not authorized, a SQLSTATE error is signaled with an appropriate error message.

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| Step | Action |
| 1 | Parameter Declaration: Declares input parameters p\_user\_id and p\_book\_id. |
| 2 | Book Ownership Check: Queries the books table to retrieve the author\_id of the specified book\_id and stores it in v\_book\_owner. |
| 3 | Authorization Check: Compares v\_book\_owner with p\_user\_id to verify ownership. |
| 4 | Listing the Book: If authorized, inserts a new record into the auctions table with the book\_id, user\_id, starting\_price, and end\_time. |
| 5 | Confirmation Message: Returns a success message if the book is listed successfully. |
| 6 | Error Handling: If the user is not authorized, signals a SQLSTATE error with an appropriate message. |