**Assignment 4 : PL/SQL**

**Roll No: 31448**

**1) Create Procedure**

DELIMITER $$

CREATE OR REPLACE PROCEDURE Issue\_Book(

IN p\_roll\_no INT,

IN p\_name VARCHAR(100),

IN p\_issue\_date DATE,

IN p\_book\_name VARCHAR(200)

)

BEGIN

-- Error handler for SQL exceptions

DECLARE EXIT HANDLER FOR SQLEXCEPTION

BEGIN

ROLLBACK;

SELECT 'Error Occurred' AS msg;

END;

START TRANSACTION;

INSERT INTO borrow(Roll\_no, Name, Date\_of\_Issue, Name\_of\_Book, Status)

VALUES (p\_roll\_no, p\_name, p\_issue\_date, p\_book\_name, 'I');

COMMIT;

SELECT 'BOOK ISSUED SUCCESSFULLY' AS msg;

END $$

DELIMITER ;

**2) Call Procedure**

CALL Issue\_Book(201,'Mokshada Sheth','2025-08-05','Discovery of India');

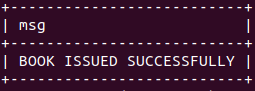
CALL Issue\_Book(201,'Mokshada Sheth','2025-08-05','Discovery of India');

CALL Issue\_Book(202,'Sayali Pawar','2025-02-01','Diary of Anne Frank');

CALL Issue\_Book(203,'Gauri Wagh','2025-06-01','It ends with us');

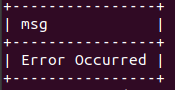
CALL Issue\_Book(204,'Shradha Kokare','2025-05-11','Biography of Kiran Bedi');

CALL Issue\_Book(205,'Mayuri Sable','2025-03-21','The 5AM Club');



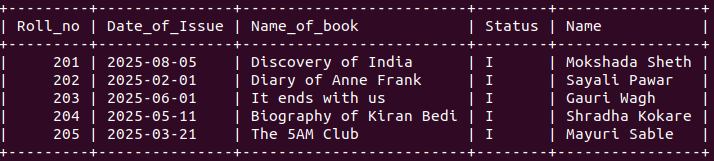
**3) Exception Handler**

CALL Issue\_Book('205','Mayuri Sable','2025-03-13','The Pysology of Money');



**4) Display Records**

SELECT \* FROM borrow;



**5) Procedure to set fine if between 15 and 30 Rs 5/- per day. If >30 then Rs 50/- per day**

DELIMITER $$

MariaDB [te31448\_db]> CREATE OR REPLACE PROCEDURE Return\_Book(

-> IN p\_roll\_no INT,

-> IN p\_return\_date DATE)

-> BEGIN

-> DECLARE v\_days INT;

-> DECLARE v\_issue\_date DATE;

-> DECLARE v\_fine\_amount DECIMAL(8,2);

-> SELECT Date\_of\_Issue INTO v\_issue\_date FROM borrow WHERE Roll\_no = p\_roll\_no;

-> SET v\_days = DATEDIFF(p\_return\_date,v\_issue\_date);

-> SET v\_fine\_amount = 0;

-> IF v\_days BETWEEN 15 AND 30 THEN

-> SET v\_fine\_amount= (v\_days-14)\*5;

-> ELSEIF v\_days>30 THEN

-> SET v\_fine\_amount= ((v\_days-30)\*50)+((v\_days-14-(v\_days-30))\*5);

-> -- fiine=(days beyond 30×50)+(days between 15 and 30×5)

-> END IF;

-> UPDATE borrow SET Status='R' WHERE Roll\_NO = p\_roll\_NO AND Status='I';

-> IF v\_fine\_amount>0 THEN

-> INSERT INTO fine(Roll\_no,Fine\_date,Amt) VALUES(p\_roll\_no,p\_return\_date,v\_fine\_amount);

-> END IF;

-> SELECT CONCAT('Return Processed.Fine amount: Rs ',v\_fine\_amount) AS msg;

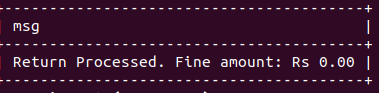
-> END

-> $$ DELIMITER

**6) Call Return Book**

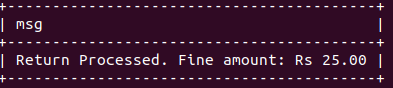
**-- No fine**

CALL Return\_Book(203,'2025-06-12');



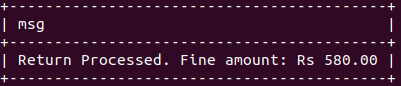
**-- days between 15-30**

CALL Return\_Book(204,'2025-05-30');

****

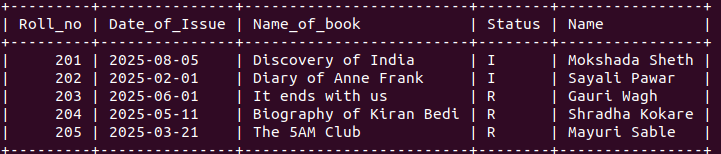
**-- days >30**

CALL Return\_Book(205,'2025-04-30');



**7) Status updated**

SELECT \* FROM borrow;



**8) Fine table**

SELECT \* FROM fine;

