Assignment 4

// procedure for inserting the data into the Borrower table

```
DELIMITER $$

CREATE OR REPLACE PROCEDURE IssueBook(
    IN p_Roll_no INT,
    IN p_Name VARCHAR(50),
    IN p_Issue_date DATE,
    IN p_Book_name VARCHAR(50)
)
BEGIN
    DECLARE EXIT HANDLER FOR SQLEXCEPTION
    BEGIN
        ROLLBACK;
        SELECT 'Error occurred!! Transaction RollBacked..!!' AS message;
    END;

    START TRANSACTION;

    INSERT INTO borrower (Roll_no, Name, Issue_date, Book_name, Status)
    VALUES (p_Roll_no, p_Name, p_Issue_date, p_Book_name, 'I');

    COMMIT;

    SELECT 'Book Issued Successfully..!!!' AS message;
END$$

DELIMITER ;


    IN p_return_date DATE20 pt
```

// procedure for inserting the data into fine table

```
DELIMITER $$

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_amt INT DEFAULT 0;

    SELECT Issue_date INTO v_issue_date
    FROM borrower
    WHERE Roll_no = p_roll_no
    LIMIT 1;

    SET v_days = DATEDIFF(p_return_date, v_issue_date);

    IF v_days BETWEEN 15 AND 30 THEN
        SET v_fine_amt = (v_days - 14) * 5;
    ELSEIF v_days > 30 THEN
        SET v_fine_amt = ((30 - 14) * 5) + ((v_days - 30) * 50);
    END IF;

    UPDATE borrower
    SET Status = 'R'
    WHERE Roll_no = p_roll_no AND Status = 'T';

    IF v_fine_amt > 0 THEN
        INSERT INTO fine (Roll_no, date, Fine_Amount)
        VALUES (p_roll_no, p_return_date, v_fine_amt);
    END IF;

    SELECT CONCAT('Return processed. Fine amount: Rs ', v_fine_amt) AS message;
END$$

DELIMITER ;
```

//procedure for area of circle where radius betn 5 to 9

```
DELIMITER $$

create procedure CircleArea(in rad int)
BEGIN
        declare circlearea double;

    if rad < 5 OR rad > 9 THEN
        SIGNAL SQLSTATE '45000' SET MESSAGE_TEXT = 'Input number must be between 5 and
9';
        end if;


        set circlearea =PI()*rad*rad;

    start transaction;
```

```
    insert into carea(radius, area)
    values(rad,circlearea);

    commit;

    select concat('Area of Circle : ',circlearea) as message;



END$$
DELIMITER ;
```