Practical No.4

Unnamed PL/SQL code block: Use of Control structure and Exception handling is mandatory.

Suggested Problem statement:

Consider Tables:

1. Borrower(Roll_no, Name, DateofIssue, NameofBook, Status)

2. Fine (Roll_no,Date,Amt)

Accept Roll_no and NameofBook from user.

Check the number of days (from date of issue).

If days are between 15 to 30 then fine amount will be Rs 5per day.

If no. of days>30, per day fine will be Rs 50 per day and for days less than 30, Rs. 5 per day.

After submitting the book, status will change from I to R.

If condition of fine is true, then details will be stored into fine table.

Also handles the exception by named exception handler or user define exception handler.

OR

Write a PL/SQL code block to calculate the area of a circle for a value of radius varying from 5 to 9. Store the radius and the corresponding values of calculated area in an empty table named areas, consisting of two columns, radius and area.

Step 1:

```
CREATE TABLE areas (
   radius DECIMAL(5, 2),
   area DECIMAL(10, 2)
);
```

Step 2:

```
DELIMITER $$
CREATE PROCEDURE calculate_areas()
BEGIN
   DECLARE r INT DEFAULT 5;
   DECLARE a DECIMAL(10, 2);

   -- Loop through radius values from 5 to 9
   WHILE r <= 9 DO
```

```
        -- Calculate the area of the circle
        SET a = 3.14159 * r * r;

        -- Insert the radius and area into the areas table
        INSERT INTO areas (radius, area)
        VALUES (r, a);

        -- Increment the radius
        SET r = r + 1;
    END WHILE;
END$$
DELIMITER ;
```

Step 3:

```
CALL calculate_areas();
```

Step 4:

```
SELECT * FROM areas;
```