

DBMS – Assignment A4

Creating tables & inserting data

```
CREATE TABLE Borrower (
    Roll_no NUMBER(15),
    Name VARCHAR(255),
    DateOfIssue DATE,
    NameOfBook VARCHAR(255),
    Status VARCHAR(255),
    PRIMARY KEY(Roll_no)
);
```

Table created.

```
CREATE TABLE Fine (
    Roll_no NUMBER(15),
    DateOfReturn DATE,
    Amount NUMBER(15),
    FOREIGN KEY(Roll_no) REFERENCES Borrower(Roll_no)
);
```

Table created.

```
INSERT INTO Borrower (Roll_no, Name, DateOfIssue, NameOfBook, Status)
values (1, 'Ayush Kalaskar', TO_DATE('2024-07-28', 'YYYY-MM-DD'), 'DBMS',
'I');
```

1 row(s) inserted.

```
INSERT INTO Borrower (Roll_no, Name, DateOfIssue, NameOfBook, Status)
values (2, 'Himanshu Patil', TO_DATE('2024-07-01', 'YYYY-MM-DD'), 'IOT',
'I');
```

1 row(s) inserted.

```
INSERT INTO Borrower (Roll_no, Name, DateOfIssue, NameOfBook, Status)
values (3, 'Kshitij', TO_DATE('2024-08-05', 'YYYY-MM-DD'), 'TOC', 'I');
```

1 row(s) inserted.

Before running procedure

Borrower:

ROLL_NO	NAME	DATEOFISSUE	NAMEOFBOOK	STATUS
1	Ayush Kalaskar	28-JUL-24	DBMS	I
2	Himanshu Patil	01-JUL-24	IOT	I
3	Kshitij	05-AUG-24	TOC	I

Fine:

TABLE FINE

Column	Null?	Type
ROLL_NO	-	NUMBER(15,0)
DATEOFRRETURN	-	DATE
AMOUNT	-	NUMBER(15,0)

Procedure

```
DECLARE
    p_nameofbook VARCHAR(255);
    p_rollno NUMBER(15) := 1;
    p_dateofissue DATE;
    currentdate DATE;
    noofday NUMBER(15);
    amount NUMBER(15);
    nodata EXCEPTION;

BEGIN
    p_nameofbook := '&p_nameofbook';
    currentdate := SYSDATE;

    IF p_rollno <= 0 THEN
        RAISE nodata;
    END IF;

    SELECT DateOfIssue
    INTO p_dateofissue
    FROM Borrower
    WHERE Roll_no = p_rollno AND NameOfBook = p_nameofbook;

    SELECT TRUNC(SYSDATE) - p_dateofissue
    INTO noofday
    FROM dual;

    DBMS_OUTPUT.PUT_LINE('No of days: ' || noofday);
    IF (noofday > 30) THEN
        amount := noofday * 50;
    ELSIF (noofday >= 15 AND noofday <= 30) THEN
        amount := noofday * 5;
    ELSE
        amount := 0;
    END IF;

    IF amount > 0 THEN
        INSERT INTO Fine (Roll_no, DateOfReturn, Amount)
        VALUES (p_rollno, SYSDATE, amount);
    END IF;

    IF amount > 0 THEN
        UPDATE Borrower
        SET Status = 'R'
        WHERE Roll_no = p_rollno;
    END IF;

EXCEPTION
    WHEN nodata THEN
        DBMS_OUTPUT.PUT_LINE('Roll number or book name not found.');
    WHEN NO_DATA_FOUND THEN
        DBMS_OUTPUT.PUT_LINE('No entry found for the provided roll number and book name.');
    WHEN OTHERS THEN
        DBMS_OUTPUT.PUT_LINE('An error occurred: ' || SQLERRM);

END;
/
```

Output

1. For ROLL_NO = 1 and NAMEOFBOOK = 'DBMS'

Statement processed.

No of days: 63

Borrower:

ROLL_NO	NAME	DATEOFSUSSUE	NAMEOFBOOK	STATUS
1	Ayush Kalaskar	28-JUL-24	DBMS	R
2	Himanshu Patil	01-JUL-24	IOT	I
3	Kshitij	05-AUG-24	TOC	I

Fine:

ROLL_NO	DATEOFRRETURN	AMOUNT
1	29-SEP-24	3150

2. For ROLL_NO = 2 and NAMEOFBOOK = 'IOT'

Statement processed.

No of days: 90

Borrower:

ROLL_NO	NAME	DATEOFSUSSUE	NAMEOFBOOK	STATUS
1	Ayush Kalaskar	28-JUL-24	DBMS	R
2	Himanshu Patil	01-JUL-24	IOT	R
3	Kshitij	05-AUG-24	TOC	I

Fine:

ROLL_NO	DATEOFRRETURN	AMOUNT
1	29-SEP-24	3150
2	29-SEP-24	4500

3. For ROLL_NO = 3 and NAMEOFBOOK = 'TOC'

Statement processed.

No of days: 55

Borrower:

ROLL_NO	NAME	DATEOFSUITE	NAMEOFBOOK	STATUS
1	Ayush Kalaskar	28-JUL-24	DBMS	R
2	Himanshu Patil	01-JUL-24	IOT	R
3	Kshitij	05-AUG-24	TOC	R

Fine:

ROLL_NO	DATEOFRRETURN	AMOUNT
1	29-SEP-24	3150
2	29-SEP-24	4500
3	29-SEP-24	2750

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