

#### Assignment No 4.

```
CREATE TABLE Borrower(Roll INT PRIMARY KEY NOT NULL AUTO_INCREMENT,Name  
VARCHAR(20),DateofIssue DATE,NameofBook VARCHAR(20),Status VARCHAR(2));
```

```
CREATE TABLE Fine(Roll INT,Date DATE,Amt INT,Foreign Key(Rol  
l) REFERENCES Borrower(Roll));
```

```
INSERT INTO Borrower(Name,DateofIssue,NameofBook,Status) VALUES ('Sarthik','2023-10-15','CNS','I');
```

Query OK, 1 row affected (0.007 sec)

```
MariaDB [dbms]> INSERT INTO Borrower(Name,DateofIssue,NameofBook,Status) VALUES ('Vijay','2023-  
10-20','DBMS','I');
```

Query OK, 1 row affected (0.026 sec)

```
MariaDB [dbms]> INSERT INTO Borrower(Name,DateofIssue,NameofBook,Status) VALUES ('Ritika','2023-  
10-01','TOC','I');
```

Query OK, 1 row affected (0.006 sec)

```
MariaDB [dbms]> INSERT INTO Borrower(Name,DateofIssue,NameofBook,Status) VALUES  
('Kannika','2023-11-01','SPOS','I');
```

Query OK, 1 row affected (0.007 sec)

```
MariaDB [dbms]> INSERT INTO Borrower(Name,DateofIssue,NameofBook,Status) VALUES ('Avish','2023-  
10-10','DS','I');
```

Query OK, 1 row affected (0.022 sec)

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DELIMITER \$\$

CREATE PROCEDURE calc\_fine(IN rno INT,bname VARCHAR(20))

BEGIN

DECLARE i\_date DATE;

DECLARE fineAmt INT;

DECLARE diff INT;

DECLARE EXIT HANDLER FOR SQLEXCEPTION

BEGIN

ROLLBACK;

SIGNAL SQLSTATE '45000'

SET MESSAGE\_TEXT='Error Occured';

END;

SELECT DateofIssue INTO i\_date FROM Borrower WHERE Roll=rno AND NameofBook=bname  
AND Status!='R';

SET fineAmt=0;

SET diff=DATEDIFF(CURDATE(),i\_date);

IF (diff<0) THEN

SIGNAL SQLSTATE '45000'

SET MESSAGE\_TEXT='Invalid Date Calculation';

ELSEIF (diff>15 AND diff<30) THEN

SET fineAmt=diff\*5;

ELSEIF (diff>30) THEN

SET fineAmt= (30-diff)\*50+15\*5;

ELSE

SET fineAmt=0;

END IF;

INSERT INTO Fine VALUES(rno,i\_date,fineAmt);

UPDATE Borrower SET Status='R' WHERE Roll=rno AND NameofBook=bname;

END;

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\$\$

DELIMITER ;

Output

**Call calc\_fine(1,'CNS')**