

# Lab-8 Functions and stored procedures :

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## Details :

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## Question 1 :

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Commands :

```
DELIMITER $$

CREATE function ticket_limit(userid varchar(20), today date) RETURNS
varchar(50) BEGIN DECLARE cnt int;DECLARE msg varchar(50);
set
  cnt = (
    SELECT
      count(*)
    from
      TICKET
    where
      TICKET.user_id = userid
      AND TIMESTAMPDIFF(MONTH, today, TICKET.travel_date) = 0
  );IF cnt = 0 THEN
set
  msg = 'cannot purchase ticket current limit is over';ELSE
set
  msg = 'below limit, can purchase tickets';END IF;RETURN msg;END;$$

SELECT user_id,ticket_limit(TICKET.user_id,"2021-10-22") FROM
TICKET;$$
```

Screenshots :

```
MariaDB [railways]> DELIMITER $$
MariaDB [railways]> CREATE function ticket_limit(userid varchar(20), today date) RETURNS varchar(50) BEGIN DECLARE cnt int;DECLARE msg
varchar(50);
-> set
-> cnt = (
-> SELECT
-> count(*)
-> from
-> TICKET
-> where
-> TICKET.user_id = userid
-> AND TIMEDIFF(MONTH, today, TICKET.travel_date) = 0
-> );IF cnt = 0 THEN
-> set
-> msg = 'cannot purchase ticker current limit is over';ELSE
-> set
-> msg = 'below limit, can purshase tickets';END IF;RETURN msg;END;$$
Query OK, 0 rows affected (0.012 sec)
```

```
MariaDB [railways]> SELECT user_id,ticket_limit(TICKET.user_id,"2021-10-22") FROM TICKET;$$
+-----+-----+
| user_id | ticket_limit(TICKET.user_id,"2021-10-22") |
+-----+-----+
| ADM_001 | cannot purchase ticker current limit is over |
| ADM_001 | cannot purchase ticker current limit is over |
| ADM_002 | cannot purchase ticker current limit is over |
| ADM_002 | cannot purchase ticker current limit is over |
| ADM_003 | cannot purchase ticker current limit is over |
| ADM_003 | cannot purchase ticker current limit is over |
| USR_002 | cannot purchase ticker current limit is over |
| USR_002 | cannot purchase ticker current limit is over |
| USR_007 | cannot purchase ticker current limit is over |
| USR_008 | below limit, can purshase tickets |
| USR_008 | below limit, can purshase tickets |
| USR_009 | cannot purchase ticker current limit is over |
| USR_010 | cannot purchase ticker current limit is over |
| USR_012 | cannot purchase ticker current limit is over |
+-----+-----+
14 rows in set (0.003 sec)
```

## Question 2 :

Command :

```
CREATE procedure generate_age(IN dob date, IN userid varchar(20))
BEGIN
UPDATE
  USER
SET
  age = FLOOR(DATEDIFF(NOW(), dob) / 365)
WHERE
  user_id = userid;END;$$

UPDATE USER SET age=NULL;$$
CALL generate_age("1989-04-14", "ADM_001");$$
SELECT * FROM USER WHERE user_id="ADM_001";$$
```

Screenshots :

```
MariaDB [railways]> UPDATE USER SET age=NULL;$$
Query OK, 0 rows affected (0.000 sec)
Rows matched: 33  Changed: 0  Warnings: 0

MariaDB [railways]> CREATE procedure generate_age(IN dob date, IN userid varchar(20)) BEGIN
-> UPDATE
->   USER
-> SET
->   age = FLOOR(DATEDIFF(NOW(), dob) / 365)
-> WHERE
->   user_id = userid;END;$$
ERROR 1304 (42000): PROCEDURE generate_age already exists
MariaDB [railways]> █
```

```
MariaDB [railways]> CALL generate_age("1989-04-14", "ADM_001");$$
Query OK, 1 row affected (0.008 sec)

MariaDB [railways]> SELECT * FROM USER WHERE user_id="ADM_001";
-> $$
+-----+-----+-----+-----+-----+-----+-----+-----+
| user_id | user_type | fname   | lname | age | dob       | pincode | street_name |
+-----+-----+-----+-----+-----+-----+-----+-----+
| ADM_001 | ADMIN     | Narendra | Modi  | 33  | 1989-04-14 | 600047  | Old Jail Road |
+-----+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.000 sec)
```