DBMS

Lab Assignment: Week 8

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Roll No: 54

Date: 08/11/2022

Task 1: Write a function to find the number of tickets booked by a customer. If no of tickets is more than 3 for the current month then display error message as "cannot purchase tickets current limit is over"

Code:

```
DELIMITER $$

CREATE FUNCTION check_ticket_count(p_id VARCHAR(20))

RETURNS VARCHAR(50)

DETERMINISTIC

BEGIN

DECLARE msg VARCHAR(50);

DECLARE count INT;

SET count = (SELECT COUNT(*))

FROM TICKET

WHERE passenger_id=p_id AND MONTH(CURRENT_DATE())=MONTH(travel_date)

GROUP BY passenger_id, MONTH(travel_date));

IF count > 3 THEN

SET msg = 'Cannot purchase more tickets';

ELSE

SET msg = 'Can purchase more tickets.';

END IF;

RETURN msg;

END; $$

DELIMITER;
```

Output: Initially::-

```
[620_rr]> select * from ticket;
                                               train_no | travel_date | departure | arrival
                                                                                                                                                                                                                                                                                | departure_time | arrival_time | passenger_id | train_type | compartment_type | compartment_no |
                                                           62621 2022-08-07

62620 2022-08-14

52561 2022-08-01

52560 2022-08-15

58451 2022-08-05

58450 2033-08-04

62621 2022-08-07

52600 2022-08-07

52600 2022-08-19

62621 2022-08-12

52560 2022-08-07

52560 2022-08-07

52560 2022-08-07

52560 2022-08-07

62621 2022-08-07

62621 2022-08-07

62621 2022-08-07

62621 2022-08-07
                                                                                                                                                                                                                                 Chennai
Bengaluru
Mangaluru
Chennai
Mangaluru
Bengaluru
Chennai
Bangarpet
Kannur
Chennai
Mangaluru
Palakkad
Chennai
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Superfast
Superfast
Mail
Fast
Superfast
Superfast
Mail
Superfast
Mail
Mail
Superfast
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 I Class
II Class
III Class
III Class
III Class
III Class
II Class
                                                                                                                                                                    Bengaluru
Chennai
Chennai
Mangaluru
Bengaluru
Mangaluru
Bangarpet
Chennai
Mangaluru
Katapadi
Subramanya
Kannur
Palakkad
Bengaluru
                                                                                                                                                                                                                                                                                         16:00:00
08:00:00
18:00:00
19:15:00
06:00:00
08:00:00
18:00:00
19:15:00
19:00:00
11:00:00
22:15:00
04:30:00
16:00:00
                                                                                                                                                                                                                                                                                                                                                                        20:30:00
12:25:00
07:30:00
08:00:00
08:00:00
14:00:00
10:15:00
20:30:00
09:00:00
23:15:00
20:30:00
14:00:00
04:30:00
08:00:00
20:30:00
                                                                                                                                                                                                                                                                                                                                                                                                                                               ADM 001
ADM 001
ADM 003
ADM 003
ADM 003
USR 002
ADM 002
ADM 002
ADM 002
USR 007
USR 008
USR 009
USR 010
USR 010
USR 012
USR 008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          F01
F02
S02
G01
S01
F01
F01
S01
F01
F01
          PNRØ15
PNRØ21
      ariaDB [620_rr]> DELIMITER $$
ariaDB [620_rr]>
ariaDB [620_rr]>
ariaDB [620_rr]> CREATE FUNCTION check_ticket_count(p_id VARCHAR(20))
-> RETURNS VARCHAR(50)
-> DETERMINISTIC
               -> DETERMINISTIC
-> BEGIN
-> BEGIN
-> DECLARE msg VARCHAR(50);
-> DECLARE count INT;
-> SET count = (SELECT COUNT(*)
-> FROM TICKET
-> WHERE passenger_id=p_id AND MONTH(CURRENT_DATE())=MONTH(travel_date)
-> GROUP BY passenger_id, MONTH(travel_date));
-> If count > 3 THEN
-> SET msg = 'Cannot purchase more tickets';
-> ELSE
-> SET msg = 'Can purchase more tickets.';
-> END IF;
-> RETURN msg;
-> END;$$
ry OK, 0 rows affected (0.053 sec)
MariaDB [620_rr]>
MariaDB [620_rr]> DELIMITER ;
```

After running the function:

Task 2: Write a stored procedure to calculate the age of the customer when the date of birth is given.

Update the column named age in the customer table.

Code:

```
DELIMITER $$

CREATE PROCEDURE update_age_in_table (
IN user_id VARCHAR(20), OUT msg VARCHAR(30)
)

BEGIN

DECLARE age_ INT;

DECLARE dob_ DATE;

SET age_ = (SELECT age FROM train_user WHERE train_user.user_id=user_id);

SET dob_ = (SELECT dob FROM train_user WHERE train_user.user_id=user_id);

IF age_ IS NULL THEN

SET msg = 'Updating age';

UPDATE train_user SET age=DATEDIFF(CURRENT_DATE(), dob_)/365

WHERE train_user.user_id=user_id;

ELSE

SET msg = 'Already updated';

END IF;

END$$

DELIMITER;
```

Output:

:- initially.

```
MariaDB [620_rr]> select * from train_user;
  user_id | user_type |
                            firstname
                                            lastname
                                                                                  pincode
                                                                                            | street number
  ADM_001
              ADMIN
                            Narendra
                                            Modi
                                                                   1989-04-14
                                                                                  600047
                                                                                              Old Jail Road
                                                                                              High Street
  ADM_002
              ADMIN
                            Droupadi
                                            Murmu
                                                                   1990-04-14
                                                                                  640012
  ADM_003
              ADMIN
                            Manmohan
                                            Singh
                                                          NULL
                                                                   1991-04-08
                                                                                   575003
                                                                                              Pumpwell Road
  USR_001
              PSGR
                                                                   1971-01-01
                                                                                   560001
                                                                                              10, Janpath
  USR_002
              PSGR
                            Muhammed
                                                                   2000-10-09
                                                                                   560003
                                                                                              10, Downing
                            Sai Deepak
  USR_003
              PSGR
                                            Reddy
                                                                   1996-12-12
                                                                                  600001
                                                                                              14, Kailsh Marg
                                                                                              5, Lohia Garden
  USR_004
              PSGR
                            Rudra
                                            Agarwal
                                                                   1996-12-13
                                                                                  600042
                                                                   1997-12-14
  USR_005
              PSGR
                            Rahul
                                            Khanna
                                                          NULL
                                                                                  600067
  USR_006
              PSGR
                            Nirmala
                                            Seturaman
                                                                   1998-12-15
                                                                                  560105
                                                                                              3, Blue Avenue
                                                                   1999-12-16
  USR_007
              PSGR
                            Smriti
                                            Irani
                                                                                   575014
                                                                                              4, Banyan Avenie
  USR_008
              PSGR
                                            Sethi
                                                          NULL
                                                                   1966-04-14
                                                                                  575001
                                                                                                 Poes Garden
  USR_009
              PSGR
                            Arjun
                                            Allu
                                                                   1967-04-08
                                                                                   575020
                                                                                                 Dhamaka street
  USR_010
              PSGR
                            Samanta
                                            Prabhu
                                                          NULL
                                                                   1968-04-14
                                                                                  600042
                                                                                              8, Clone Colony
  USR_011
USR_012
                                                                                              56, Brigade Road
              PSGR
                            Kiran
                                            Bedi
                                                                   1969-04-14
                                                                                   560003
                                                                   1970-04-08
              PSGR
                            Rahul
                                            Gandhi
                                                          NULL
                                                                                  475001
                                                                                              Mirza road
  USR_013
USR_014
              PSGR
                            Rashkit
                                            Shetty
                                                                   1971-04-14
                                                                                  560009
                                                                                              JC Road
              PSGR
                            Rishi
                                            Sunak
                                                          NULL
                                                                   1972-04-14
                                                                                  600034
                                                                                              Anna Sali
  USR_015
USR_016
                            Vedavalli
              PSGR
                                            Srinath
                                                                   1973-04-14
                                                                                  560054
                                                                                              Church Street, Bangalore
                                                                   1974-04-14
                                                                                              American Street
              PSGR
                            Subbu
                                            Saravana
                                                          NULL
                                                                                  600043
  USR_017
USR_018
                                                                                              Kasturba Road
New BEL Road
                            Sheela
              PSGR
                                            Dixit
                                                          NULL
                                                                   1975-04-08
                                                                                   560048
              PSGR
                            Margaret
                                            Alva
                                                          NULL
                                                                   1976-04-14
                                                                                  560008
  USR_019
USR_020
              PSGR
                            Arun
                                            Kumar
                                                          NULL
                                                                   1977-04-14
                                                                                  600046
                                                                                              Mint Street
              PSGR
                                                                   1978-04-14
                            Anshu
                                            Bhardwaj
                                                          NULL
                                                                                  575001
                                                                                              KSR Road
                                                                                              Old Airport Road, Bangalore
  USR_021
              PSGR
                            Suma
                                            Sampat
                                                          NULL
                                                                   1979-04-08
                                                                                  560012
                                                                                              Suranjan Das Road
  USR_022
              PSGR
                            Srihari
                                                                   1980-04-14
                                            Udupa
                                                          NULL
                                                                                  560015
  USR_023
USR_024
              PSGR
                            Satish
                                            Kotian
                                                          NULL
                                                                   1981-04-14
                                                                                  600044
                                                                                              T Nagar
              PSGR
                                                                                              M G Road, Bangalore
                            Shradha
                                            Nayar
                                                          NULL
                                                                   1982-04-08
                                                                                   560006
                                            Solanki
                                                                   1983-04-08
  USR_025
              PSGR
                            Manisha
                                                          NULL
                                                                                  575030
                                                                                              M G Road
                                                                                              NAL Wind Tunnel Road
  USR_026
              PSGR
                            Bharti
                                            Devgan
                                                          NULL
                                                                   1984-04-14
                                                                                  560059
  USR_027
USR_028
              PSGR
                            Roopa
Pallavi
                                            Ram
                                                          NULL
                                                                   1985-04-14
                                                                                  575023
                                                                                              Bunder Road
              PSGR
                                            Ram
                                                          NULL
                                                                   1986-04-08
                                                                                  560044
                                                                                              Lavelle Road
              PSGR
                                                                   1987-04-14
                                                                                  600045
                                                                                              Thiru V ka Salai
Bejai New Road
  USR_029
                            Ravi
                                            Naik
                                                          NULL
                            Virat
  USR_030
              PSGR
                                                                                  575011
                                            Murthy
                                                          NULL
                                                                   1988-04-14
33 rows in set (0.001 sec)
MariaDB [620_rr]> DELIMITER $$
MariaDB [620_rr]> CREATE PROCEDURE update_age_in_table (
-> IN user_id VARCHAR(20), OUT msg VARCHAR(30)
    -> )
    -> BEGIN
    -> DECLARE age_ INT;
     -> DECLARE dob_ DATE;
    -> SET age_ = (SELECT age FROM train_user WHERE train_user.user_id=user_id);
-> SET dob_ = (SELECT dob FROM train_user WHERE train_user.user_id=user_id);
    -> IF age_ IS NULL THEN
    -> SET msg = 'Updating age';
-> UPDATE train_user SET age=DATEDIFF(CURRENT_DATE(), dob_)/365
-> WHERE train_user.user_id=user_id;
    -> ELSE
    -> SET msg = 'Already updated';
-> END IF;
Query OK, 0 rows affected (0.061 sec)
```

After the procedure gets called ::-

MariaDB [620_rr]> call update_age_in_table('ADM_001',@A); Query OK, 1 row affected (0.029 sec)

MariaDB [620_rr]> select * from train_user;

+ user_id +	user_type	+ firstname +	lastname	age	+ dob +	pincode	street_number
ADM_001	ADMIN	Narendra	Modi	34	1989-04-14	600047	Old Jail Road
ADM_002	ADMIN	Droupadi	Murmu	NULL	1990-04-14	640012	High Street
ADM_003	ADMIN	Manmohan	Singh	NULL	1991-04-08	575003	Pumpwell Road
USR_001	PSGR	Ajit	Ullal	NULL	1971-01-01	560001	10, Janpath
USR_002	PSGR	Muhammed	Ali	NULL	2000-10-09	560003	10, Downing
USR_003	PSGR	Sai Deepak	Reddy	NULL	1996-12-12	600001	14, Kailsh Marg
USR_004	PSGR	Rudra	Agarwal	NULL	1996-12-13	600042	5, Lohia Garden
USR_005	PSGR	Rahul	Khanna	NULL	1997-12-14	600067	1, Pink Street
USR_006	PSGR	Nirmala	Seturaman	NULL	1998-12-15	560105	3, Blue Avenue
USR_007	PSGR	Smriti	Irani	NULL	1999-12-16	575014	4, Banyan Avenie
USR_008	PSGR	Ajit	Sethi	NULL	1966-04-14	575001	6, Poes Garden
USR_009	PSGR	Arjun	Allu	NULL	1967-04-08	575020	7, Dhamaka street
USR_010	PSGR	Samanta	Prabhu	NULL	1968-04-14	600042	8, Clone Colony
USR_011	PSGR	Kiran	Bedi	NULL	1969-04-14	560003	56, Brigade Road
USR_012	PSGR	Rahul	Gandhi	NULL	1970-04-08	475001	Mirza road
USR_013	PSGR	Rashkit	Shetty	NULL	1971-04-14	560009	JC Road
USR_014	PSGR	Rishi	Sunak	NULL	1972-04-14	600034	Anna Sali
USR_015	PSGR	Vedavalli	Srinath	NULL	1973-04-14	560054	Church Street, Bangalore
USR_016	PSGR	Subbu	Saravana	NULL	1974-04-14	600043	American Street
USR_017	PSGR	Sheela	Dixit	NULL	1975-04-08	560048	Kasturba Road
USR_018	PSGR	Margaret	Alva	NULL	1976-04-14	560008	New BEL Road
USR_019	PSGR	Arun	Kumar	NULL	1977-04-14	600046	Mint Street
USR_020	PSGR	Anshu	Bhardwaj	NULL	1978-04-14	575001	KSR Road
USR_021	PSGR	Suma	Sampat	NULL	1979-04-08	560012	Old Airport Road, Bangalore
USR_022	PSGR	Srihari	Udupa	NULL	1980-04-14	560015	Suranjan Das Road
USR_023	PSGR	Satish	Kotian	NULL	1981-04-14	600044	T Nagar
USR_024	PSGR	Shradha	Nayar	NULL	1982-04-08	560006	M G Road, Bangalore
USR_025	PSGR	Manisha	Solanki	NULL	1983-04-08	575030	M G Road
USR_026	PSGR	Bharti	Devgan	NULL	1984-04-14	560059	NAL Wind Tunnel Road
USR_027	PSGR	Roopa	Ram	NULL	1985-04-14	575023	Bunder Road
USR_028	PSGR	Pallavi	Ram	NULL	1986-04-08	560044	Lavelle Road
USR_029	PSGR	Ravi	Naik	NULL	1987-04-14	600045	Thiru V ka Salai
USR_030	PSGR	Virat	Murthy	NULL	1988-04-14	575011	Bejai New Road
+	+	+		+	+	+	++

33 rows in set (0.036 sec)

MariaDB [620_rr]>

If incase we need to update the age of all the users ::-

```
-> UPDATE train_user set Age = FLOOR(DATEDIFF(CURRENT_DATE,dob)/365);
       -> END:
--> END;
--> $\frac{5}{5}$
ERROR 1304 (42000): PROCEDURE age_eval already exists
MariaDB [620_rr]> DELIMITER;
MariaDB [620_rr]> call age_eval();
Query OK, 33 rows affected (0.097 sec)
 ariaDB [620_rr]> select * from train user;
   user_id | user_type | firstname | lastname | age | dob
                                                                                                                                | pincode | street number
  ADM_001
ADM_002
ADM_003
USR_001
USR_002
USR_003
USR_004
                                                                                                 33
32
                                                                                                          1989-04-14 |
1990-04-14 |
                      ADMIN
                                             Narendra
                                                                      Modi
                                                                                                                                    600047
                                                                                                                                                       Old Jail Road
                                             Droupadi
                                                                      Murmu
                                                                                                                                    640012
                      ADMIN
                                                                                                                                                       High Street
                                                                                                          1996-04-14
1991-04-08
1971-01-01
2000-10-09
1996-12-12
1996-12-13
                                             Manmohan
Ajit
Muhammed
                                                                                                                                                       Pumpwell Road
10, Janpath
10, Downing
                                                                      Singh
Ullal
                                                                                                                                    575003
560001
                      ADMIN
                                                                                                 31
51
22
25
25
24
23
22
56
55
54
53
52
51
49
48
                      PSGR
                                             Muhammed
Sai Deepak
Rudra
Rahul
Nirmala
Smriti
Ajit
Arjun
Samanta
                                                                                                                                                      14, Kailsh Marg
5, Lohia Garden
1, Pink Street
3, Blue Avenue
4, Banyan Avenie
                      PSGR
                                                                      Reddy
                                                                                                                                    600001
600042
                      PSGR
                                                                      Agarwal
                                                                                                          1996-12-13
1997-12-14
1998-12-15
1999-12-16
1966-04-14
1967-04-08
  USR_005
USR_006
                                                                      Khanna
                                                                                                                                    600067
560105
                      PSGR
                                                                       Seturaman
  USR_007
USR_008
USR_009
                     PSGR
PSGR
                                                                      Irani
Sethi
                                                                                                                                    575014
575001
                                                                                                                                                      6, Poes Garden
7, Dhamaka street
                                                                                                                                    575020
  USR_010
USR_011
USR_012
USR_013
USR_014
USR_015
USR_016
                     PSGR
PSGR
                                             Samanta
Kiran
                                                                      Prabhu
Bedi
                                                                                                          1968-04-14
1969-04-14
                                                                                                                                   600042
560003
                                                                                                                                                      8, Clone Colony
56, Brigade Road
                                                                                                          1969-04-14
1970-04-08
1971-04-14
1972-04-14
1973-04-14
1975-04-08
1976-04-14
1977-04-14
1979-04-08
                                                                      Gandhi
Shetty
                                             Rahul
Rashkit
                                                                                                                                    475001
560009
                                                                                                                                                       Mirza road
                      PSGR
                                                                                                                                                       JC Road
                     PSGR
PSGR
                                                                                                                                    600034
560054
                                                                                                                                                      Anna Sali
Church Street, Bangalore
American Street
                                             Vedavalli
                                                                       Srinath
                                              Subbu
                                                                       Saravana
                                                                                                                                    600043
  USR_016
USR_017
USR_018
USR_019
USR_020
USR_021
USR_022
USR_023
                                                                                                                                                       Kasturba Road
New BEL Road
Mint Street
                                                                                                 47
46
45
44
                     PSGR
PSGR
                                                                                                                                    560048
560008
                                              Sheela
                                                                      Dixit
                                             Margaret
Arun
                                                                      Alva
                                                                                                                                    600046
575001
                     PSGR
                                             Anshu
                                                                      Bhardwai
                                                                                                                                                       KSR Road
                                                                                                                                                       Old Airport Road, Bangalore
Suranjan Das Road
T Nagar
                                                                       Sampat
                                                                                                                                     560012
                     PSGR
                                             Srihari
                                                                      Udupa
Kotian
                                                                                                 42
41
                                                                                                           1980-04-14
1981-04-14
                                                                                                                                    560015
600044
                                              Satish
  USR_024
USR_025
USR_026
USR_027
USR_028
                     PSGR
PSGR
                                             Shradha
Manisha
                                                                      Nayar
Solanki
                                                                                                           1982-04-08
1983-04-08
                                                                                                                                    560006
575030
                                                                                                                                                      M G Road, Bangalore
M G Road
                                                                                                 40
39
38
37
36
                                                                                                           1984-04-14
1985-04-14
1986-04-08
                                                                                                                                    560059
575023
560044
                                              Bharti
                                                                      Devgan
                                                                                                                                                       NAL Wind Tunnel Road
                                                                                                                                                      Bunder Road
Lavelle Road
Thiru V ka Salai
Bejai New Road
                      PSGR
                                             Roopa
Pallavi
                                                                      Ram
Ram
                      PSGR
                                             Ravi
Virat
                                                                                                           1987-04-14 |
1988-04-14 |
                                                                                                                                    600045
   USR_029
                      PSGR
                                                                      Naik
   USR_030
                                                                      Murthy
                                                                                                                                    575011
 3 rows in set (0.001 sec)
```