

DBMS LAB-09

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SECTION: '5K'

1. Write a trigger on insert to compartment table when a new compartment gets added to a train and make sure that total number of compartments available in the train does not exceed more than 4.

DELIMITER \$\$

CREATE TRIGGER check_compartment_count

BEFORE INSERT

ON compartment FOR EACH ROW

BEGIN

DECLARE error_msg VARCHAR(255);

declare count int;

SET error_msg = ("Can't have more than 4 compartments");

IF (select count(compartment_no) from compartment where train_no=new.train_no) > 4 THEN

SIGNAL SQLSTATE '45000'

SET MESSAGE_TEXT = error_msg;

END IF;

END \$\$

DELIMITER ;

```

C:\> Command Prompt - mysql -u root
MariaDB [cs667_rr]> DELIMITER $$
MariaDB [cs667_rr]> CREATE TRIGGER check_compartment_count
-> BEFORE INSERT
-> ON compartment FOR EACH ROW
-> BEGIN
->     DECLARE error_msg VARCHAR(255);
->     declare count int;
->     SET error_msg = ("Can't have more than 4 compartments");
->     IF (select count(compartment_no) from compartment where train_no=new.train_no) > 4 THEN
->     SIGNAL SQLSTATE '45000'
->     SET MESSAGE_TEXT = error_msg;
->     END IF;
-> END $$
Query OK, 0 rows affected (0.023 sec)

MariaDB [cs667_rr]> DELIMITER ;
MariaDB [cs667_rr]>

```

Example

```

C:\> Command Prompt - mysql -u root
MariaDB [cs667_rr]> insert into compartment values("S09","AC", 20, 0,58451);
Query OK, 1 row affected (0.006 sec)

MariaDB [cs667_rr]> _

```

```

C:\> Command Prompt - mysql -u root
MariaDB [cs667_rr]> select train_no,count(*) from compartment group by train_no;
+-----+-----+
| train_no | count(*) |
+-----+-----+
| 25260 | 3 |
| 25261 | 4 |
| 58450 | 4 |
| 58451 | 2 |
| 62620 | 2 |
| 62621 | 5 |
+-----+-----+
6 rows in set (0.001 sec)

MariaDB [cs667_rr]> insert into compartment values ("F03","II Class", 20, 5,62621);
ERROR 1644 (45000): Can't have more than 4 compartments
MariaDB [cs667_rr]>

```

2. create a trigger to add payment information to the backup table when we try to delete some information from ticket table.

```

CREATE TABLE payment_ ( transaction_id bigint(20),bank varchar(15),card_no bigint(20),price float ,pnr varchar(15)
NOT NULL, primary key(transaction_id, pnr));

```

```

DELIMITER $$

```

```

CREATE OR REPLACE TRIGGER store_payment_info before delete on ticket for each row

```

```

begin

```

```
INSERT INTO payment_info_backup (SELECT * FROM payment_info WHERE pnr=old.pnr);
```

```
DELETE FROM payment_info where pnr=old.pnr;
```

```
DELETE FROM ticket_passenger where pnr=old.pnr;
```

```
END;
```

```
$$
```

```
DELIMITER ;
```

```
C:\> Command Prompt - mysql -u root
MariaDB [cs667_rr]>
MariaDB [cs667_rr]> DELIMITER $$
MariaDB [cs667_rr]> CREATE OR REPLACE TRIGGER store_payment_info before delete on ticket for each row
-> begin
-> INSERT INTO payment_info_backup (SELECT * FROM payment_info WHERE pnr=old.pnr);
-> DELETE FROM payment_info where pnr=old.pnr;
-> DELETE FROM ticket_passenger where pnr=old.pnr;
-> END;
-> $$
Query OK, 0 rows affected (0.026 sec)

MariaDB [cs667_rr]> DELIMITER ;
MariaDB [cs667_rr]> _
```

```
C:\> Command Prompt - mysql -u root
MariaDB [cs667_rr]> delete from ticket where pnr="PNR014";
Query OK, 1 row affected (0.009 sec)

MariaDB [cs667_rr]> select * from payment_info where pnr="PNR014";
Empty set (0.000 sec)

MariaDB [cs667_rr]> select * from payment_info_backup;
+-----+-----+-----+-----+-----+
| transaction_id | bank       | card_no           | price | pnr    |
+-----+-----+-----+-----+-----+
| 354364         | CANARA BANK | 5770000000000000 | 0     | PNR014 |
+-----+-----+-----+-----+-----+
1 row in set (0.000 sec)

MariaDB [cs667_rr]> select * from ticket where pnr="PNR014";
Empty set (0.001 sec)

MariaDB [cs667_rr]> _
```