Name: Adithya M   SRN: PES1UG20CS621   Section: K

Week 9

1) DELIMITER $$

    CREATE TRIGGER trigger1

    BEFORE INSERT ON compartment

    FOR EACH ROW

    BEGIN

    IF (SELECT COUNT(*) FROM compartment WHERE Train_Number = NEW.Train_Number) >= 4 THEN

        SIGNAL SQLSTATE '50001' SET MESSAGE_TEXT = 'Max number of compartments reached';

      END IF;

    END; $$

    DELIMITER ;

    INSERT INTO compartment VALUES("F01","Class I",12,8,58450);

```
MariaDB [cs621_railway]> select * from compartment
    -> ;
+----------------+------------------+----------+--------------+--------------+
| compartment_no | compartment_type | capacity | availability | train_number |
+----------------+------------------+----------+--------------+--------------+
| F01            | I Class          |       16 |            0 |        25260 |
| F01            | I Class          |       16 |            0 |        25261 |
| F01            | I Class          |       16 |            4 |        58450 |
| F01            | I Class          |       16 |            5 |        58451 |
| F01            | I Class          |       16 |           15 |        62620 |
| F01            | I Class          |       16 |            6 |        62621 |
| F02            | I Class          |       16 |            0 |        62620 |
| G01            | III Class        |       60 |           33 |        25261 |
| G01            | III Class        |       60 |            2 |        58450 |
| G01            | III Class        |       60 |           40 |        58451 |
| G01            | III Class        |       60 |           10 |        62621 |
| G02            | III Class        |       60 |           45 |        25261 |
| G02            | III Class        |       60 |           12 |        62621 |
| S01            | II Class         |       30 |           15 |        25260 |
| S01            | II Class         |       30 |           15 |        25261 |
| S01            | II Class         |       30 |            5 |        58450 |
| S01            | II Class         |       30 |            4 |        62621 |
| S02            | II Class         |       30 |           17 |        25260 |
| S02            | II Class         |       30 |            3 |        58450 |
| S02            | II Class         |       30 |            6 |        62621 |
+----------------+------------------+----------+--------------+--------------+
```

```
MariaDB [cs621_railway]> INSERT INTO  compartment VALUES("F01","Class I",12,8,58450);
ERROR 1644 (50001): Max number of compartments reached
MariaDB [cs621_railway]>
```

2) create table Back_Up(pnr varchar(10),train_number int, travel_date date,departure varchar(30),arrival varchar(30),departure_time time,arrival_time time, user_id varchar(20),train_type varchar(20), compartment_type varchar(10),compartment_no varchar(10),seat_no varchar(10),name varchar(30),age int(11), transaction_id int,bank varchar(20),card_no varchar(20),price int);

ALTER TABLE Ticket_Passenger ADD CONSTRAINT dt FOREIGN KEY (pnr) REFERENCES Ticket(pnr) on delete cascade;

ALTER TABLE Payment_info ADD CONSTRAINT dp FOREIGN KEY (pnr) REFERENCES Ticket(pnr) on delete cascade;

DELIMITER $$

CREATE TRIGGER del_ticket

BEFORE DELETE

ON Ticket FOR EACH ROW

BEGIN

     INSERT INTO Back_Up (SELECT * FROM (Ticket NATURAL JOIN(Ticket_Passenger NATURAL JOIN Payment_info)) WHERE pnr=old.pnr);

END; $$

DELIMITER ;

delete from Ticket where pnr="PNR005";

SELECT * FROM Back_Up;

```
MariaDB [cs621_railway]> SELECT * FROM Back_Up;
+--------+--------------+-------------+-----------+-----------+----------------+--------------+---------+------------+------------------+----------------+
| pnr    | train_number | travel_date | departure | arrival   | departure_time | arrival_time | user_id | train_type | compartment_type | compartment_no |
| seat_no | name        | age | transaction_id | bank      | card_no    | price |
+--------+--------------+-------------+-----------+-----------+----------------+--------------+---------+------------+------------------+----------------+
| PNR005 |        58451 | 2022-08-03  | Bengaluru | Mangaluru | 06:00:00       | 14:00:00     | USR_002 | Fast       | III Class        | G01            |
| S01-10 | Hema Ullal  | 27 |        978098 | INDIAN BANK | 9.88733E+15 | NULL |
| PNR005 |        58451 | 2022-08-03  | Bengaluru | Mangaluru | 06:00:00       | 14:00:00     | USR_002 | Fast       | III Class        | G01            |
| S01-11 | Hima Ullal  | 28 |        978098 | INDIAN BANK | 9.88733E+15 | NULL |
| PNR005 |        58451 | 2022-08-03  | Bengaluru | Mangaluru | 06:00:00       | 14:00:00     | USR_002 | Fast       | III Class        | G01            |
| S01-12 | Asha Ullal  | 21 |        978098 | INDIAN BANK | 9.88733E+15 | NULL |
| PNR005 |        58451 | 2022-08-03  | Bengaluru | Mangaluru | 06:00:00       | 14:00:00     | USR_002 | Fast       | III Class        | G01            |
| S01-9  | Ajit Ullal  | 31 |        978098 | INDIAN BANK | 9.88733E+15 | NULL |
+--------+--------------+-------------+-----------+-----------+----------------+--------------+---------+------------+------------------+----------------+
4 rows in set (0.000 sec)
```