DBMS Lab-4

Name: Vrushank G   **SRN: PES1UG20CS516**   **Section: I**

Task-I: Use INSERT/SELECT/UPDATE queries for the following tasks:

1. Insert the shared data into the respective tables using appropriate insert query.

• Show the usage of INSERT and LOAD DATA INFILE commands explicitly

```
MariaDB [pes1ug20cs516]> drop table fare;
Query OK, 0 rows affected (0.011 sec)

MariaDB [pes1ug20cs516]> create table fare(train_type varchar(20), compartment_type varchar(10), fare_per_km int, primar
y key(train_type,compartment_type));
Query OK, 0 rows affected (0.015 sec)

MariaDB [pes1ug20cs516]> LOAD DATA INFILE "D:/RISHI/SEM5/DBMS/PES1UG20CS516_Lab4/fare_table.csv" INTO TABLE fare
    -> COLUMNS TERMINATED BY ','
    -> OPTIONALLY ENCLOSED BY '"'
    -> ESCAPED BY '"'
    -> LINES TERMINATED BY '\n'
    -> IGNORE 1 LINES;
Query OK, 9 rows affected, 9 warnings (0.006 sec)
Records: 9  Deleted: 0  Skipped: 0  Warnings: 9
```

```
MariaDB [pes1ug20cs516]> select * from fare;
+------------+------------------+-------------+
| train_type | compartment_type | fare_per_km |
+------------+------------------+-------------+
| Fast       | I Class          |           3 |
| Fast       | II Class         |           2 |
| Mail       | I Class          |           2 |
| Mail       | II Class         |           1 |
| Mail       | III Class        |           1 |
| Superfast  | I Class          |           3 |
| Superfast  | II Class         |           2 |
| Superfast  | III Class        |           1 |
+------------+------------------+-------------+
8 rows in set (0.000 sec)

MariaDB [pes1ug20cs516]> insert into fare values('Fast','III Class',2);
Query OK, 1 row affected (0.001 sec)

MariaDB [pes1ug20cs516]> select * from fare;
+------------+------------------+-------------+
| train_type | compartment_type | fare_per_km |
+------------+------------------+-------------+
| Fast       | I Class          |           3 |
| Fast       | II Class         |           2 |
| Fast       | III Class        |           2 |
| Mail       | I Class          |           2 |
| Mail       | II Class         |           1 |
| Mail       | III Class        |           1 |
| Superfast  | I Class          |           3 |
| Superfast  | II Class         |           2 |
| Superfast  | III Class        |           1 |
+------------+------------------+-------------+
9 rows in set (0.000 sec)
```

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2. Calculate and update age attribute in User Table.

```
MariaDB [pes1ug20cs516]> select * from train_user limit 10;
+---------+-----------+-----------+-----------+------+------------+---------+------------------+
| user_id | user_type | firstname | lastname  | age  | dob        | pincode | street_number    |
+---------+-----------+-----------+-----------+------+------------+---------+------------------+
| ADM_001 | ADMIN     | Narendra  | Modi      |   33 | 1989-04-14 | 600047  | Old Jail Road    |
| ADM_002 | ADMIN     | Droupadi  | Murmu     |   32 | 1990-04-14 | 640012  | High Street      |
| ADM_003 | ADMIN     | Manmohan  | Singh     |   31 | 1991-04-08 | 575003  | Pumpwell Road    |
| USR_001 | PSGR      |     Ajit  | Ullal     |   51 | 1971-01-01 | 560001  | 10, Janpath      |
| USR_002 | PSGR      | Muhammed  | Ali       |   21 | 2000-10-09 | 560003  | 10, Downing      |
| USR_003 | PSGR      | Sai Deepak| Reddy     |   25 | 1996-12-12 | 600001  | 14, Kailsh Marg  |
| USR_004 | PSGR      | Rudra     | Agarwal   |   25 | 1996-12-13 | 600042  | 5, Lohia Garden  |
| USR_005 | PSGR      | Rahul     | Khanna    |   24 | 1997-12-14 | 600067  | 1, Pink Street   |
| USR_006 | PSGR      | Nirmala   | Seturaman |   23 | 1998-12-15 | 560105  | 3, Blue Avenue   |
| USR_007 | PSGR      | Smriti    | Irani     |   22 | 1999-12-16 | 575014  | 4, Banyan Avenie |
+---------+-----------+-----------+-----------+------+------------+---------+------------------+
10 rows in set (0.000 sec)
```

3. Display all the route information whose distance falls in a range from 70 to 150 km.

```
MariaDB [pes1ug20cs516]> select *from route_info where distance<150 and distance>70;
+----------------+--------------+-------------------+-----------------+----------+----------+
| from_station_no | to_station_no | from_station_name | to_station_name | distance | train_no |
+----------------+--------------+-------------------+-----------------+----------+----------+
|              1 |            2 | Mangaluru         | Kannur          |      131 |    25260 |
|              4 |            4 | Palakkad          | Chennai         |      130 |    25260 |
|              1 |            2 | Chennai           | Palakkad        |      130 |    25261 |
|              3 |            4 | Kannur            | Mangaluru       |      131 |    25261 |
|              3 |            4 | Mysore            | Bengaluru       |      139 |    58450 |
|              1 |            2 | Bengaluru         | Mysore          |      139 |    58451 |
|              1 |            2 | Chennai           | Sholingur       |       90 |    62620 |
|              1 |            3 | Chennai           | Katpadi         |      129 |    62620 |
|              4 |            5 | Bangarpet         | Bengaluru       |       71 |    62620 |
|              1 |            2 | Bengaluru         | Bangarpet       |       71 |    62621 |
|              3 |            5 | Katpadi           | Chennai         |      130 |    62621 |
|              4 |            5 | Sholingur         | Chennai         |       90 |    62621 |
+----------------+--------------+-------------------+-----------------+----------+----------+
12 rows in set (0.001 sec)
```

4. Display the train route information which are run between Chennai and Sholingur

```
MariaDB [pes1ug20cs516]> select * from route_info where ((from_station_name="chennai" and to_station_name="sholingur") or (from_station_name="sholingur" and to_station_name="chennai"));
+----------------+--------------+-------------------+-----------------+----------+----------+
| from_station_no | to_station_no | from_station_name | to_station_name | distance | train_no |
+----------------+--------------+-------------------+-----------------+----------+----------+
|              1 |            2 | Chennai           | Sholingur       |       90 |    62620 |
|              2 |            5 | Sholingur         | Chennai         |      271 |    62620 |
|              4 |            5 | Sholingur         | Chennai         |       90 |    62621 |
+----------------+--------------+-------------------+-----------------+----------+----------+
3 rows in set (0.001 sec)
```

5. Display the train details whose type is not mail.

```
MariaDB [pes1ug20cs516]> select * from train where not train_type="mail";
+----------+------------------+------------+-----------+-------------+--------------+
| train_no | train_name       | train_type | source    | destination | availability |
+----------+------------------+------------+-----------+-------------+--------------+
|    58450 | MAN-BEN Express  | Fast       | Mangaluru | Bengaluru   | yes          |
|    58451 | BEN-MAN Express  | Fast       | Bengaluru | Mangaluru   | yes          |
|    62620 | CHE-BEN Shatabdi | Superfast  | Chennai   | Bengaluru   | No           |
|    62621 | BEN-CHE Shatabdi | Superfast  | Bengaluru | Chennai     | yes          |
+----------+------------------+------------+-----------+-------------+--------------+
4 rows in set (0.001 sec)
```

6. Display the train name which goes to Chennai from Bengaluru.

```
MariaDB [pes1ug20cs516]> select train_name from train where source="bengaluru" and destination="Chennai";
+------------------+
| train_name       |
+------------------+
| BEN-CHE Shatabdi |
+------------------+
1 row in set (0.001 sec)
```

7. Display the list of trains starting from Chennai after 8:00.

```
MariaDB [pes1ug20cs516]> select train.train_no , train.train_name from train inner join ticket where ticket.train_no=tra
in.train_no and ticket.departure="Chennai" and ticket.departure_time>"8:00";
+----------+----------------+
| train_no | train_name     |
+----------+----------------+
|    25261 | Managaluru Mail |
+----------+----------------+
1 row in set (0.003 sec)
```

8. Display the list of users who are born between 1980 to 1990.

```
MariaDB [pes1ug20cs516]> select *from train_user where year(dob)>1980 and year(dob)<1990;
+---------+-----------+-----------+----------+------+------------+---------+----------------------+
| user_id | user_type | firstname | lastname | age  | dob        | pincode | street_number        |
+---------+-----------+-----------+----------+------+------------+---------+----------------------+
| ADM_001 | ADMIN     | Narendra  | Modi     |   33 | 1989-04-14 | 600047  | Old Jail Road        |
| USR_023 | PSGR      | Satish    | Kotian   |   41 | 1981-04-14 | 600044  | T Nagar              |
| USR_024 | PSGR      | Shradha   | Nayar    |   40 | 1982-04-08 | 560006  | M G Road, Bangalore  |
| USR_025 | PSGR      | Manisha   | Solanki  |   39 | 1983-04-08 | 575030  | M G Road             |
| USR_026 | PSGR      | Bharti    | Devgan   |   38 | 1984-04-14 | 560059  | NAL Wind Tunnel Road |
| USR_027 | PSGR      | Roopa     | Ram      |   37 | 1985-04-14 | 575023  | Bunder Road          |
| USR_028 | PSGR      | Pallavi   | Ram      |   36 | 1986-04-08 | 560044  | Lavelle Road         |
| USR_029 | PSGR      | Ravi      | Naik     |   35 | 1987-04-14 | 600045  | Thiru V ka Salai     |
| USR_030 | PSGR      | Virat     | Murthy   |   34 | 1988-04-14 | 575011  | Bejai New Road       |
+---------+-----------+-----------+----------+------+------------+---------+----------------------+
9 rows in set (0.003 sec)
```

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9. Display the train users whose name starts with the letter 'S'

```
MariaDB [pes1ug20cs516]> select *from train_user where firstname like "S%";
+---------+-----------+------------+----------+------+------------+---------+----------------------------+
| user_id | user_type | firstname  | lastname | age  | dob        | pincode | street_number              |
+---------+-----------+------------+----------+------+------------+---------+----------------------------+
| USR_003 | PSGR      | Sai Deepak | Reddy    |   25 | 1996-12-12 | 600001  | 14, Kailsh Marg            |
| USR_007 | PSGR      | Smriti     | Irani    |   22 | 1999-12-16 | 575014  | 4, Banyan Avenie           |
| USR_010 | PSGR      | Samanta    | Prabhu   |   54 | 1968-04-14 | 600042  | 8, Clone Colony            |
| USR_016 | PSGR      | Subbu      | Saravana |   48 | 1974-04-14 | 600043  | American Street            |
| USR_017 | PSGR      | Sheela     | Dixit    |   47 | 1975-04-08 | 560048  | Kasturba Road              |
| USR_021 | PSGR      | Suma       | Sampat   |   43 | 1979-04-08 | 560012  | Old Airport Road, Bangalore|
| USR_022 | PSGR      | Srihari    | Udupa    |   42 | 1980-04-14 | 560015  | Suranjan Das Road          |
| USR_023 | PSGR      | Satish     | Kotian   |   41 | 1981-04-14 | 600044  | T Nagar                    |
| USR_024 | PSGR      | Shradha    | Nayar    |   40 | 1982-04-08 | 560006  | M G Road, Bangalore        |
+---------+-----------+------------+----------+------+------------+---------+----------------------------+
9 rows in set (0.001 sec)
```

10. Find the availability of I Class compartment of the train number 62621

```
MariaDB [pes1ug20cs516]> select availability from compartment where compartment_type="I Class" and train_number=62621;
+--------------+
| availability |
+--------------+
|            6 |
+--------------+
1 row in set (0.001 sec)
```

11. Find the PNR and Transaction ID of the users who made payment via Union Bank.

```
MariaDB [pes1ug20cs516]> select pnr, transaction_no from payment_info where bank="Union Bank";
+--------+----------------+
| pnr    | transaction_no |
+--------+----------------+
| PNR012 |         243535 |
| PNR015 |         758900 |
| PNR010 |         867546 |
| PNR003 |         978776 |
+--------+----------------+
4 rows in set (0.003 sec)
```