DBMS Lab-06

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SRN: PES1UG20CS450

Section: H

Roll No: 50

Task1:

```
MariaDB [pes1ug20cs450]> select t.train_no, avg(distance) from train as t natural join route_info as r where r.to_station_no -1 = r.from_station_no group by train_no;
+----------+---------------+
| train_no | avg(distance) |
+----------+---------------+
|    25260 |      175.5000 |
|    25261 |      160.3333 |
|    58450 |      168.0000 |
|    58451 |      167.6667 |
|    62620 |       90.2500 |
|    62621 |       90.5000 |
+----------+---------------+
6 rows in set (0.065 sec)
```

Task2:

```
MariaDB [pes1ug20cs450]> select t.train_no, avg(distance) from train as t natural join route_info as r where r.to_station_no -1 = r.from_station_no
    -> group by train_no order by avg(distance)desc;
+----------+---------------+
| train_no | avg(distance) |
+----------+---------------+
|    25260 |      175.5000 |
|    58450 |      168.0000 |
|    58451 |      167.6667 |
|    25261 |      160.3333 |
|    62621 |       90.5000 |
|    62620 |       90.2500 |
+----------+---------------+
6 rows in set (0.002 sec)
```

Task3:

```
MariaDB [pes1ug20cs450]> select train_no, distance from train natural join route_info where source=from_station_name and destination=to_station_name group by train_no order by distance desc;
+----------+----------+
| train_no | distance |
+----------+----------+
|    58450 |      504 |
|    58451 |      503 |
|    25260 |      481 |
|    25261 |      481 |
|    62621 |      362 |
|    62620 |      361 |
+----------+----------+
6 rows in set (0.001 sec)
```

Task4:

```
MariaDB [pes1ug20cs450]> create view compartment_num as select train_name, count(*) as count from train, compartment where train_no=train_number group by train_number order by count;
Query OK, 0 rows affected (0.052 sec)
```

```
MariaDB [pes1ug20cs450]> select * from compartment_num limit 1;
+------------------+-------+
| train_name       | count |
+------------------+-------+
| CHE-BEN Shatabdi |     2 |
+------------------+-------+
1 row in set (0.041 sec)
```

Task5:

```
MariaDB [pes1ug20cs450]> select user_id, count(user_id) as no_phone_num from user_phone where user_id in ('ADM_001','USR_006','USR_010') group by user_id;
+---------+--------------+
| user_id | no_phone_num |
+---------+--------------+
| ADM_001 |            2 |
| USR_006 |            2 |
| USR_010 |            2 |
+---------+--------------+
3 rows in set (0.001 sec)
```

Task6:

```
MariaDB [pes1ug20cs450]> select Train_Type, AVG(Fare_Per_KM)from fare_table group by Train_Type order by AVG(Fare_Per_KM) desc;
+------------+------------------+
| Train_Type | AVG(Fare_Per_KM) |
+------------+------------------+
| Fast       |           2.0000 |
| Superfast  |           2.0000 |
| Mail       |           1.3333 |
+------------+------------------+
3 rows in set (0.056 sec)
```

Task7:

```
MariaDB [pes1ug20cs450]> select * from ticket_passenger where age = (select MAX(age) from ticket_passenger)
+---------+----------+------+--------+
| seat_no | name     | age  | pnr    |
+---------+----------+------+--------+
| F01-13  | Ramya R  |   45 | PNR012 |
+---------+----------+------+--------+
1 row in set (0.001 sec)
```

Task8:

```
MariaDB [pes1ug20cs450]> select * from ticket_passenger where name like '%Ullal%';
+---------+------------+------+--------+
| seat_no | name       | age  | pnr    |
+---------+------------+------+--------+
| S01-10  | Hema Ullal |   27 | PNR005 |
| S01-11  | Hima Ullal |   28 | PNR005 |
| S01-12  | Asha Ullal |   21 | PNR005 |
| S01-9   | Ajit Ullal |   31 | PNR005 |
+---------+------------+------+--------+
4 rows in set (0.001 sec)
```