

DBMS Lab Assignment 06

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Output :

#1.

```
SELECT Train_No, AVG(Distance)
FROM ROUTE_INFO
WHERE To_Station_no - From_Station_no = 1
GROUP BY Train_No;
```

```
MariaDB [(none)]> use pes1ug20cs620_rr;
Database changed
MariaDB [pes1ug20cs620_rr]> SELECT Train_No, AVG(Distance)
-> FROM ROUTE_INFO
-> WHERE To_Station_no - From_Station_no = 1
-> 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 (0.001 sec)

MariaDB [pes1ug20cs620_rr]>
```

#2

```
SELECT Train_No, AVG(Distance)
FROM ROUTE_INFO
WHERE To_Station_no - From_Station_no = 1
GROUP BY Train_No
ORDER BY AVG(Distance) DESC;
```

```

MariaDB [pes1ug20cs620_rr]> SELECT Train_No, AVG(Distance)
-> FROM ROUTE_INFO
-> WHERE To_Station_no - From_Station_no = 1
-> 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 (0.001 sec)

#3

```

SELECT Train_No, SUM(Distance)
FROM ROUTE_INFO
WHERE To_Station_no - From_Station_no = 1
GROUP BY Train_No
ORDER BY SUM(Distance) DESC;

```

```

MariaDB [pes1ug20cs620_rr]> SELECT Train_No, SUM(Distance)
-> FROM ROUTE_INFO
-> WHERE To_Station_no - From_Station_no = 1
-> GROUP BY Train_No
-> ORDER BY SUM(Distance) DESC;

```

Train_No	SUM(Distance)
58450	504
58451	503
25261	481
62621	362
62620	361
25260	351

6 rows in set (0.000 sec)

#4. a)

```

WITH TC (Train_No , No_of_compartments)
as(SELECT Train_Number,
count(*)
FROM COMPARTMENT GROUP BY Train_Number) SELECT
TC.Train_No, T.name from TC, TRAIN T WHERE
TC.No_of_compartments = (SELECT MAX(TC2.No_of_compartments)
FROM TC as TC2) AND TC.Train_no = T.Train_No;

```

```
MariaDB [peslug20cs620_rr]> WITH TC (Train_No , No_of_compartments)
-> as(SELECT Train_Number,
-> count(*)
-> FROM COMPARTMENT GROUP BY Train_Number) SELECT
-> TC.Train_No, T.name from TC, TRAIN T WHERE
-> TC.No_of_compartments = (SELECT MAX(TC2.No_of_compartments)
-> FROM TC as TC2) AND TC.Train_no = T.Train_No;

+-----+-----+
| Train_No | name                |
+-----+-----+
| 62621    | BEN-CHE Shatabdi   |
+-----+-----+
1 row in set (0.004 sec)
```

b)

```
WITH TC (Train_No , No_of_compartments)
as(SELECT Train_Number,
count(*)
FROM COMPARTMENT GROUP BY Train_Number) SELECT
TC.Train_No, T.name from TC, TRAIN T WHERE
TC.No_of_compartments = (SELECT MIN(TC2.No_of_compartments)
FROM TC as TC2) AND TC.Train_no = T.Train_No;
```

```
MariaDB [peslug20cs620_rr]> WITH TC (Train_No , No_of_compartments)
-> as(SELECT Train_Number,
-> count(*)
-> FROM COMPARTMENT GROUP BY Train_Number) SELECT
-> TC.Train_No, T.name from TC, TRAIN T WHERE
-> TC.No_of_compartments = (SELECT MIN(TC2.No_of_compartments)
-> FROM TC as TC2) AND TC.Train_no = T.Train_No;

+-----+-----+
| Train_No | name                |
+-----+-----+
| 58451    | BEN-MAN Express    |
| 62620    | CHE-BEN Shatabdi   |
+-----+-----+
2 rows in set (0.001 sec)
```

#5

```
SELECT User, phone_no
FROM USER_PHONE
WHERE User = 'ADM_001' OR User = 'USR_006' OR User = 'USR_10';
```

```
MariaDB [pes1ug20cs620_rr]> SELECT User, phone_no
-> FROM USER_PHONE
-> WHERE User = 'ADM_001' OR User = 'USR_006' OR User = 'USR_10';
```

User	phone_no
ADM_001	9845012345
ADM_001	9900123456
USR_006	9845012345
USR_006	9900123456

4 rows in set (0.001 sec)

#6

```
SELECT Train_Type, AVG(FarePerKM)
FROM FARE_TABLE
GROUP BY Train_Type
ORDER BY AVG(FarePerKM) DESC;
```

```
MariaDB [pes1ug20cs620_rr]> SELECT Train_Type, AVG(FarePerKM)
-> FROM FARE_TABLE
-> GROUP BY Train_Type
-> ORDER BY AVG(FarePerKM) DESC;
```

Train_Type	AVG(FarePerKM)
Superfast	1.9133333365122478
Fast	1.350000023841858
Mail	1.1500000059604645
Slow	0.9800000190734863

4 rows in set (0.000 sec)

7)

```
SELECT * from TICKET_PASSENGER
WHERE AGE = (SELECT MAX(age) from TICKET_PASSENGER);
```

```
MariaDB [pes1ug20cs620_rr]> 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)

8)

```
SELECT * FROM TICKET_PASSENGER  
WHERE name LIKE '%Ullal%';
```

```
MariaDB [pes1ug20cs620_rr]> 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)