

DBMS LAB - 5

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Screenshots :

1.

```
/*1.Update price of the ticket.*/  
  
CREATE VIEW view1 AS  
SELECT pnr,ticket.train_no,departure,arrival,distance,fare_per_km FROM  
route_info  
JOIN ticket ON (route_info.from_station_name = ticket.departure AND  
route_info.to_station_name = ticket.arrival AND route_info.train_no =  
ticket.train_no)  
JOIN fare ON (ticket.train_type = fare.train_type AND  
ticket.compartment_type = fare.compartment_type);  
  
CREATE VIEW view2 AS  
SELECT pnr, COUNT(pnr) AS Passenger_Count FROM ticket_passenger GROUP BY  
pnr;  
  
update payment_info inner join view1 on (payment_info.PNR = view1.PNR)  
inner join view2 on (view1.PNR = view2.PNR) set payment_info.Price =  
view1.Distance * view1.FarePerKM * view2.passenger_no
```

```
MariaDB [pes1ug20cs620_rr]> select * from payment_info;
```

Transaction_ID	Bank	Card_Number	Price	PNR
146445	HDFC	1234330000000000	806	PNR006
243535	UNION BANK	2436470000000000	262	PNR012
342344	IOB	5623570000000000	1810	PNR001
354364	CANARA BANK	5768790000000000	297	PNR014
531343	SBI	8953270000000000	1299	PNR004
576768	ICICI	7563560000000000	559	PNR007
676756	CANARA BANK	7367560000000000	1805	PNR002
746745	KOTAK	2545640000000000	725	PNR008
758900	UNION BANK	2432660000000000	176	PNR015
867546	UNION BANK	4657690000000000	354	PNR010
867547	SBI	7466350000000000	NULL	PNR011
978098	INDIAN BANK	9887330000000000	2213	PNR005
978776	UNION BANK	1	914	PNR003

```
13 rows in set (0.000 sec)
```

2.

```
/*2. Retrieve the all stations along route of the Trains along with the
distance between subsequent stations*/
```

```
select distinct
source,destination,distance,From_station_name,To_station_name,t.Train_No
from train as t inner join route_info as r on t.Train_no=r.Train_no;
```

```

MariaDB [pesiug20cs620_rr]> select distinct source,destination,distance,From_station_name,To_station_name,t.Train_No from train as t inner
join route_info as r on t.Train_no=r.Train_no;
+-----+-----+-----+-----+-----+-----+
| source | destination | distance | From_station_name | To_station_name | Train_No |
+-----+-----+-----+-----+-----+-----+
| Mangaluru | Chennai | 131 | Mangaluru | Kannur | 25260 |
| Chennai | Mangaluru | 130 | Chennai | Palakkad | 25261 |
| Mangaluru | Bengaluru | 195 | Mangaluru | Subramanya | 58450 |
| Bengaluru | Mangaluru | 139 | Bengaluru | Mysore | 58451 |
| Chennai | Bengaluru | 90 | Chennai | Sholingur | 62620 |
| Bengaluru | Chennai | 71 | Bengaluru | Bangarpet | 62621 |
| Mangaluru | Chennai | 351 | Mangaluru | Palakkad | 25260 |
| Chennai | Mangaluru | 350 | Chennai | Kannur | 25261 |
| Mangaluru | Bengaluru | 365 | Mangaluru | Mysore | 58450 |
| Bengaluru | Mangaluru | 309 | Bengaluru | Subramanya | 58451 |
| Chennai | Bengaluru | 129 | Chennai | Katpadi | 62620 |
| Bengaluru | Chennai | 232 | Bengaluru | Katpadi | 62621 |
| Mangaluru | Chennai | 481 | Mangaluru | Chennai | 25260 |
| Chennai | Mangaluru | 481 | Chennai | Mangaluru | 25261 |
| Mangaluru | Bengaluru | 504 | Mangaluru | Bengaluru | 58450 |
| Bengaluru | Mangaluru | 503 | Bengaluru | Mangaluru | 58451 |
| Chennai | Bengaluru | 290 | Chennai | Bangarpet | 62620 |
| Bengaluru | Chennai | 272 | Bengaluru | Sholigur | 62621 |
| Chennai | Bengaluru | 361 | Chennai | Bengaluru | 62620 |
| Bengaluru | Chennai | 362 | Bengaluru | Chennai | 62621 |
| Mangaluru | Chennai | 220 | Kannur | Palakkad | 25260 |
| Chennai | Mangaluru | 220 | Palakkad | Kannur | 25261 |
| Mangaluru | Bengaluru | 170 | Subramanya | Mysore | 58450 |
| Bengaluru | Mangaluru | 170 | Mysore | Subramanya | 58451 |
| Chennai | Bengaluru | 39 | Sholingur | Katpadi | 62620 |
| Bengaluru | Chennai | 161 | Bangarpet | Katpadi | 62621 |
| Mangaluru | Chennai | 350 | Kannur | Chennai | 25260 |
| Chennai | Mangaluru | 351 | Palakkad | Mangaluru | 25261 |
| Mangaluru | Bengaluru | 309 | Subramanya | Bengaluru | 58450 |
| Bengaluru | Mangaluru | 364 | Mysore | Mangaluru | 58451 |
| Chennai | Bengaluru | 200 | Sholingur | Bangarpet | 62620 |
| Bengaluru | Chennai | 201 | Bangarpet | Sholigur | 62621 |
| Chennai | Bengaluru | 271 | Sholingur | Chennai | 62620 |
| Bengaluru | Chennai | 291 | Bangarpet | Chennai | 62621 |
| Chennai | Mangaluru | 131 | Kannur | Mangaluru | 25261 |
| Mangaluru | Bengaluru | 139 | Mysore | Bengaluru | 58450 |
| Bengaluru | Mangaluru | 194 | Subramanya | Mangaluru | 58451 |
| Chennai | Bengaluru | 161 | Katpadi | Bangarpet | 62620 |
| Bengaluru | Chennai | 40 | Katpadi | Sholigur | 62621 |
| Chennai | Bengaluru | 232 | Katpadi | Chennai | 62620 |
| Bengaluru | Chennai | 130 | Katpadi | Chennai | 62621 |
| Mangaluru | Chennai | 130 | Palakkad | Chennai | 25260 |
| Chennai | Bengaluru | 71 | Bangarpet | Bengaluru | 62620 |
| Bengaluru | Chennai | 90 | Sholingur | Chennai | 62621 |
+-----+-----+-----+-----+-----+-----+
44 rows in set (0.003 sec)

```

3.

/*3.Retrieve the Train no of train which is leaving Bengaluru and arriving at Chennai with compartments availability greater than 10*/

```

select route_info.Train_no from route_info join compartment on
route_info.Train_No=compartment.Train_number where
compartment.Availability>10 && route_info.From_Station_Name='Bengaluru' &&
route_info.To_Station_Name='Chennai';

```

```

MariaDB [pesiug20cs620_rr]> select route_info.Train_no from route_info join compartment on route_info.Train_No=compartment.Train_number w
here compartment.Availability>10 && route_info.From_Station_Name='Bengaluru' && route_info.To_Station_Name='Chennai';
+-----+
| Train_no |
+-----+
| 62621 |
+-----+
1 row in set (0.001 sec)

```

4.

```
/*4.Retrieve first and last name of users who have booked a ticket with price greater than 500*/
```

```
select distinct Fname,Lname from (ticket as t join payment_info as py on t.pnr = py.pnr) join train_user as tu on t.user_id = tu.user_id where py.price>400;
```

```
MariaDB [pes1ug20cs620_rr]> select distinct Fname,Lname from (ticket as t join payment_info as py on t.pnr = py.pnr) join train_user as tu on t.user_id = tu.user_id where py.price>400;
```

Fname	Lname
Muhammed	Ali
Narendra	Modi
Manmohan	Singh
Droupadi	Murmu

4 rows in set (0.000 sec)

5.

```
/*5. Retrieve the first name, last name, DOB and ticket PNR if they've bought it for all users.*/
```

```
select distinct Fname,Lname,DOB,PNR from ticket t left outer join train_user u ON u.User_ID = t.User_ID;
```

```
MariaDB [pes1ug20cs620_rr]> select distinct Fname,Lname,DOB,PNR from ticket t left outer join train_user u ON u.User_ID = t.User_ID;
```

Fname	Lname	DOB	PNR
Narendra	Modi	1989-04-14	PNR001
Narendra	Modi	1989-04-14	PNR002
Manmohan	Singh	1991-04-08	PNR003
Manmohan	Singh	1991-04-08	PNR004
Muhammed	Ali	2000-10-09	PNR005
Muhammed	Ali	2000-10-09	PNR006
Droupadi	Murmu	1990-04-14	PNR007
Droupadi	Murmu	1990-04-14	PNR008
Smriti	Irani	1999-12-16	PNR010
Ajit	Sethi	1966-04-14	PNR011
Arjun	Allu	1967-04-08	PNR012
Samanta	Prabhu	1968-04-14	PNR014
Rahul	Gandhi	1970-04-08	PNR015

13 rows in set (0.000 sec)

6.

```
/*6. Retrieve the first name, last name,of the Users who have not bought a ticket.*/
```

```
select Fname, Lname from train_user u left outer join ticket t on u.User_ID= t.User_ID where PNR is null;
```

```
MariaDB [pes1ug20cs620_rr]> select FName, LName from train_user u left outer join ticket t on u.User_ID= t.User_ID where PNR is null;
```

FName	LName
Ajit	Ullal
Sai Deepak	Reddy
Rudra	Agarwal
Rahul	Khanna
Nirmala	Seturaman
Kiran	Bedi
Rashkit	Shetty
Rishi	Sunak
Vedavalli	Srinath
Subbu	Saravana
Sheela	Dixit
Margaret	Alva
Arun	Kumar
Anshu	Bhardwaj
Suma	Sampat
Srihari	Udupa
Satish	Kotian
Shradha	Nayar
Manisha	Solanki
Bharti	Devgan
Roopa	Ram
Pallavi	Ram
Ravi	Naik
Virat	Murthy

24 rows in set (0.002 sec)

7.

```
/*7. Retrieve the ticket PNR, Train number, travel date and along with all users first name and last name.*/
```

```
select PNR, Train_No, Travel_Date, FName, LName from ticket t right outer join train_user u on t.User_ID = u.User_ID;
```

```
MariaDB [pes1ug20cs620_rr]> select PNR, Train_No, Travel_Date, FName, LName from ticket t right outer join train_user u on t.User_ID = u.User_ID;
```

PNR	Train_No	Travel_Date	FName	LName
PNR001	62621	0000-00-00	Narendra	Modi
PNR002	62620	0000-00-00	Narendra	Modi
PNR003	25261	0000-00-00	Manmohan	Singh
PNR004	25260	0000-00-00	Manmohan	Singh
PNR005	58451	0000-00-00	Muhammed	Ali
PNR006	58450	0000-00-00	Muhammed	Ali
PNR007	62621	0000-00-00	Droupadi	Murmu
PNR008	62620	0000-00-00	Droupadi	Murmu
PNR010	25260	0000-00-00	Smriti	Irani
PNR011	62621	0000-00-00	Ajit	Sethi
PNR012	58451	0000-00-00	Arjun	Allu
PNR014	25260	0000-00-00	Samanta	Prabhu
PNR015	25260	0000-00-00	Rahul	Gandhi
NULL	NULL	NULL	Ajit	Ullal
NULL	NULL	NULL	Sai Deepak	Reddy
NULL	NULL	NULL	Rudra	Agarwal
NULL	NULL	NULL	Rahul	Khanna
NULL	NULL	NULL	Nirmala	Seturaman
NULL	NULL	NULL	Kiran	Bedi
NULL	NULL	NULL	Rashkit	Shetty
NULL	NULL	NULL	Rishi	Sunak
NULL	NULL	NULL	Vedavalli	Srinath
NULL	NULL	NULL	Subbu	Saravana
NULL	NULL	NULL	Sheela	Dixit
NULL	NULL	NULL	Margaret	Alva
NULL	NULL	NULL	Arun	Kumar
NULL	NULL	NULL	Anshu	Bhardwaj
NULL	NULL	NULL	Suma	Sampat
NULL	NULL	NULL	Srihari	Udupa
NULL	NULL	NULL	Satish	Kotian
NULL	NULL	NULL	Shradha	Nayar
NULL	NULL	NULL	Manisha	Solanki
NULL	NULL	NULL	Bharti	Devgan
NULL	NULL	NULL	Roopa	Ram
NULL	NULL	NULL	Pallavi	Ram
NULL	NULL	NULL	Ravi	Naik
NULL	NULL	NULL	Virat	Murthy

37 rows in set (0.001 sec)

8.

```
/*8. Retrieve the train_user id if they've traveled in a train along with train id and name of all trains.*/
```

```
select User_ID , t.Train_no, name from ticket right outer join train as t
on t.Train_no = ticket.Train_no;
```

```
MariaDB [pes1ug20cs620_rr]> select User_ID , t.Train_no, name from ticket right outer join train as t on t.Train_no = ticket.Train_no;
```

User_ID	Train_no	name
ADM_001	62621	BEN-CHE Shatabdi
ADM_001	62620	CHE-BEN Shatabdi
ADM_003	25261	Managaluru Mail
ADM_003	25260	Chennai Mail
USR_002	58451	BEN-MAN Express
USR_002	58450	MAN-BEN Express
ADM_002	62621	BEN-CHE Shatabdi
ADM_002	62620	CHE-BEN Shatabdi
USR_007	25260	Chennai Mail
USR_008	62621	BEN-CHE Shatabdi
USR_009	58451	BEN-MAN Express
USR_010	25260	Chennai Mail
USR_012	25260	Chennai Mail

```
13 rows in set (0.000 sec)
```

9.

```
/*9. Retrieve the train no and name of trains whose destination is not
Mangaluru and distance is not less than 100km and departure time is not
8:30:00 PM. */
```

```
select Train_no , name from train where Train_no IN ( select Train_No from
ticket where Arrival != "Mangaluru" and Departure_Time != '20:30:00' and
Train_No in (select Train_no from route_info where Distance > 100));
```

```
/*10. Retrieve the train_User ID who h
```

```
MariaDB [pes1ug20cs620_rr]> select Train_no , name from train where Train_no IN ( select Train_No from ticket where Arrival != "Mangaluru" and Departure_Time != '20:30:00' and Train_No in (select Train_no from route_info where Distance > 100));
```

Train_no	name
25260	Chennai Mail
58450	MAN-BEN Express
62620	CHE-BEN Shatabdi
62621	BEN-CHE Shatabdi

```
4 rows in set (0.000 sec)
```

10.

```
/*10. Retrieve the train_User ID who has spent more ticket price than the
average ticket price.*/
```

```
select User_ID from ticket where PNR in (select PNR from payment_info
where Price > (select avg(Price) from payment_info));
```

```
MariaDB [pes1ug20cs620_rr]> select User_ID from ticket where PNR in (select PNR from payment_info where Price > (select avg(Price) from payment_info));
```

User_ID
ADM_001
ADM_001
ADM_003
USR_002

```
4 rows in set (0.001 sec)
```