

# **DATABASE**

# **MANAGEMENT**

# **SYSTEM**

## **LAB-5**

## **JOINS**

NAME: VISHWAS M

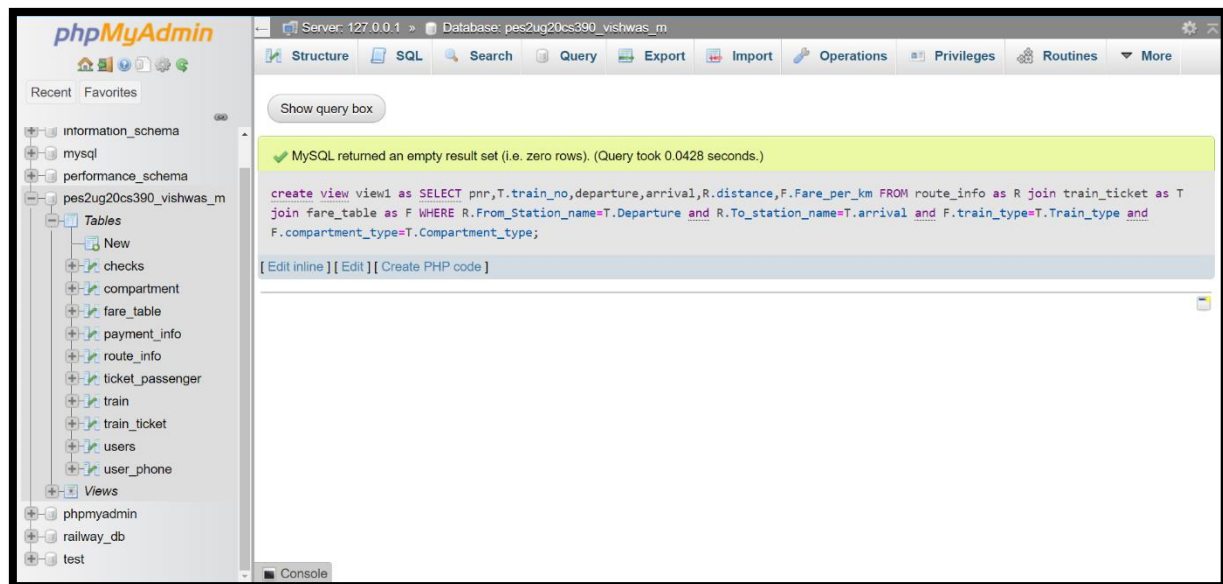
SRN : PES2UG20CS390

SEC : F

DATE : 25/09/2022

## 1) Update price of the ticket.

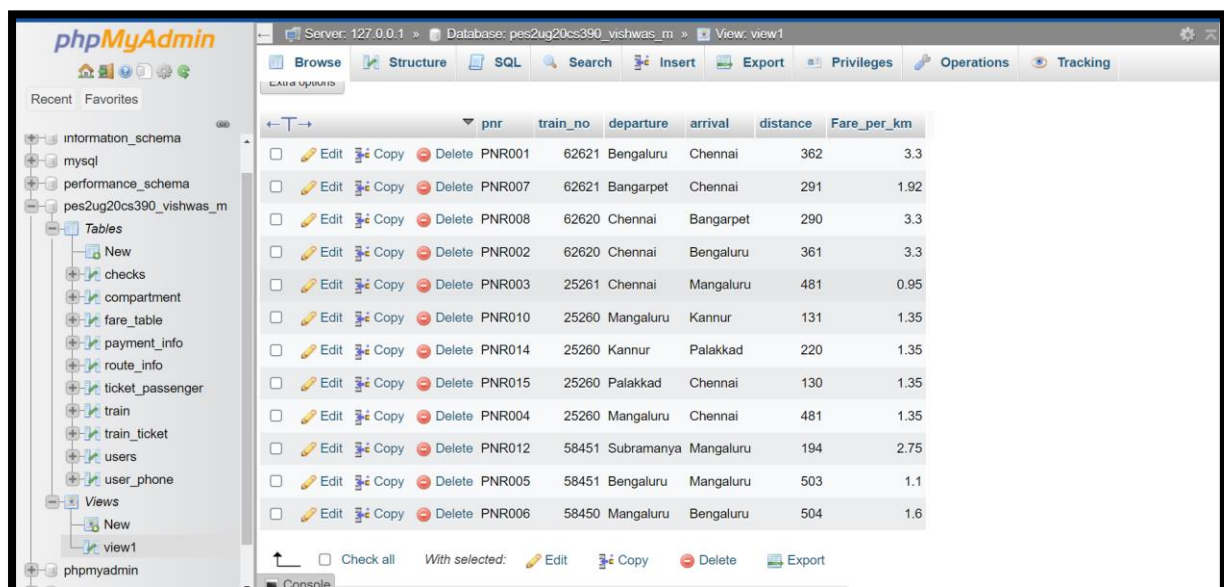
view1(PNR,Train\_no, Departure,Arrival, Distance, FareperKM)



The screenshot shows the phpMyAdmin interface with the SQL editor open. The database selected is 'pes2ug20cs390\_vishwas\_m'. The SQL query entered is:

```
create view view1 as SELECT pnr,T.train_no,departure,arrival,R.distance,F.Fare_per_km FROM route_info as R join train_ticket as T join fare_table as F WHERE R.From_Station_name=T.Departure and R.To_station_name=T.arrival and F.train_type=T.Train_type and F.compartment_type=T.Compartment_type;
```

The message below the query states: "MySQL returned an empty result set (i.e. zero rows). (Query took 0.0428 seconds.)"



The screenshot shows the phpMyAdmin interface with the 'View: view1' tab selected. The data is displayed in a table with the following columns: pnr, train\_no, departure, arrival, distance, and Fare\_per\_km. The table contains 15 rows of data.

pnr	train_no	departure	arrival	distance	Fare_per_km
PNR001	62621	Bengaluru	Chennai	362	3.3
PNR007	62621	Bangarpet	Chennai	291	1.92
PNR008	62620	Chennai	Bangarpet	290	3.3
PNR002	62620	Chennai	Bengaluru	361	3.3
PNR003	25261	Chennai	Mangaluru	481	0.95
PNR010	25260	Mangaluru	Kannur	131	1.35
PNR014	25260	Kannur	Palakkad	220	1.35
PNR015	25260	Palakkad	Chennai	130	1.35
PNR004	25260	Mangaluru	Chennai	481	1.35
PNR012	58451	Subramanya	Mangaluru	194	2.75
PNR005	58451	Bengaluru	Mangaluru	503	1.1
PNR006	58450	Mangaluru	Bengaluru	504	1.6

view2(PNR, Passenger\_number)

The screenshot shows the phpMyAdmin interface with the 'Database: pes2ug20cs390\_vishwas\_m' selected. The 'SQL' tab is active, displaying the following SQL query:

```
create view view2 AS SELECT PNR,count(pnr) as Passenger_number FROM ticket_passenger GROUP BY ticket_passenger.PNR;
```

A message above the query states: "MySQL returned an empty result set (i.e. zero rows). (Query took 0.0124 seconds.)"

The screenshot shows the phpMyAdmin interface with the 'Database: pes2ug20cs390\_vishwas\_m' selected. The 'View: view2' tab is active, displaying the following SQL query:

```
SELECT * FROM `view2`
```

Below the query, there are options for 'Profiling', 'Show all', 'Number of rows' (set to 25), and 'Filter rows' (Search this table). The 'Extra options' section is expanded, showing the following data:

PNR	Passenger_number
PNR001	2
PNR002	2
PNR003	2
PNR004	2
PNR005	4
PNR006	1
PNR007	1
PNR008	1

Updating price column in Payment\_info table:

The screenshot shows the phpMyAdmin interface with the SQL tab selected. The database is 'pes2ug20cs390\_vishwas\_m'. A query has been executed successfully, affecting 7 rows. The query is:

```
update payment_info join view1 join view2 set payment_info.price = view1.distance*view1.Fare_per_km*view2.Passenger_number where payment_info.PNR=view1.pnr and payment_info.PNR=view2.PNR;
```

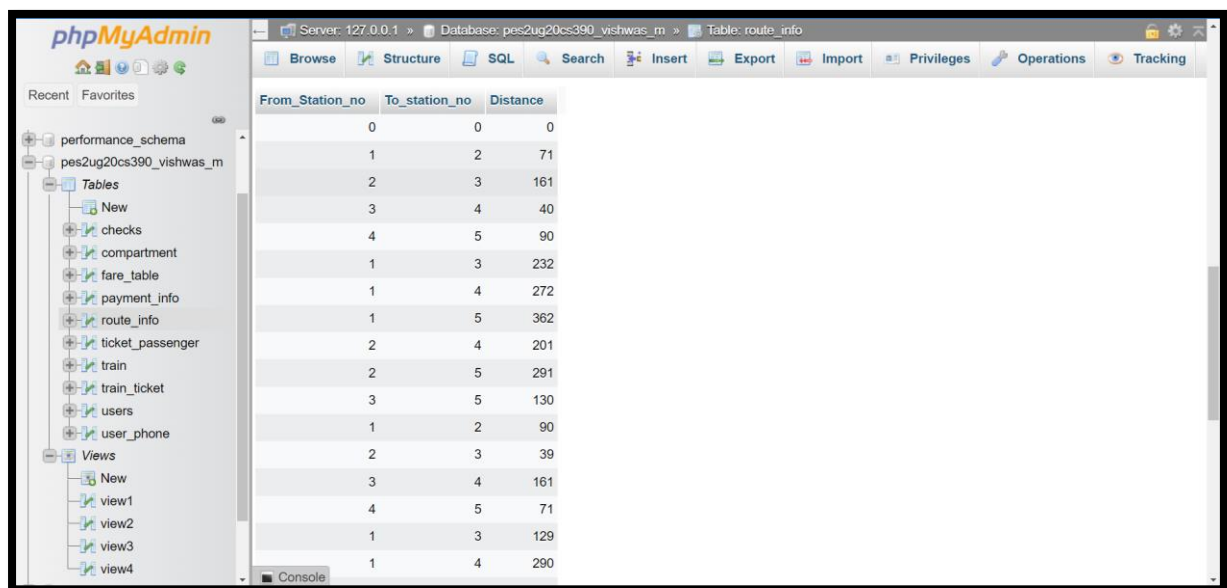
The left sidebar shows the database structure with tables like checks, compartment, fare\_table, payment\_info, route\_info, ticket\_passenger, train, train\_ticket, users, and user\_phone. Views view1, view2, view3, and view4 are also listed.

The screenshot shows the phpMyAdmin interface with the Table view selected for the 'payment\_info' table. The table contains 7 rows of data. The columns are Transaction\_id, Bank, Card\_no, Price, and PNR. The data is as follows:

Transaction_id	Bank	Card_no	Price	PNR
146445	HDFC	1234325465675789	806.4	PNR006
342344	IOB	5623568276587429	2389.2	PNR001
531343	SBI	8953274872387834	1298.7	PNR004
576768	ICICI	7563564537687986	558.72	PNR007
676756	CANARA BANK	7367562354828783	2382.6	PNR002
746745	KOTAK	2545643654365765	957	PNR008
978098	INDIAN BANK	9887325842587643	2213.2	PNR005
978776	UNION BANK	1154978597435874	913.9	PNR003

The left sidebar shows the database structure with tables like route\_info, ticket\_passenger, train, train\_ticket, users, and user\_phone. Views view1, view2, view3, and view4 are also listed.

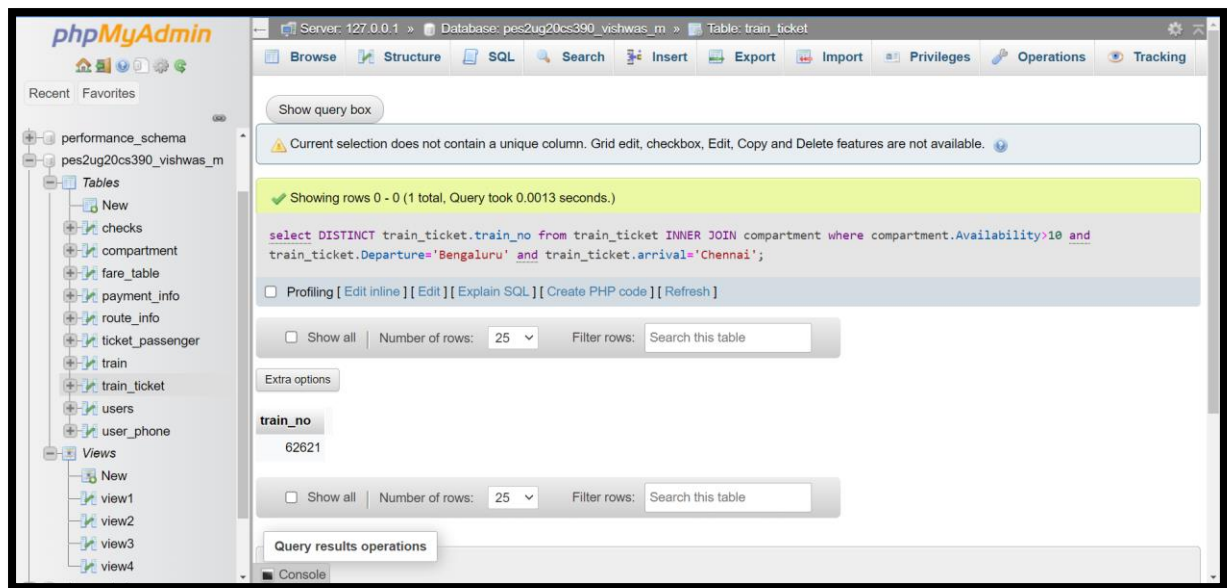
2) Retrieve all the stations along route of the Trains along with the distance between subsequent stations.



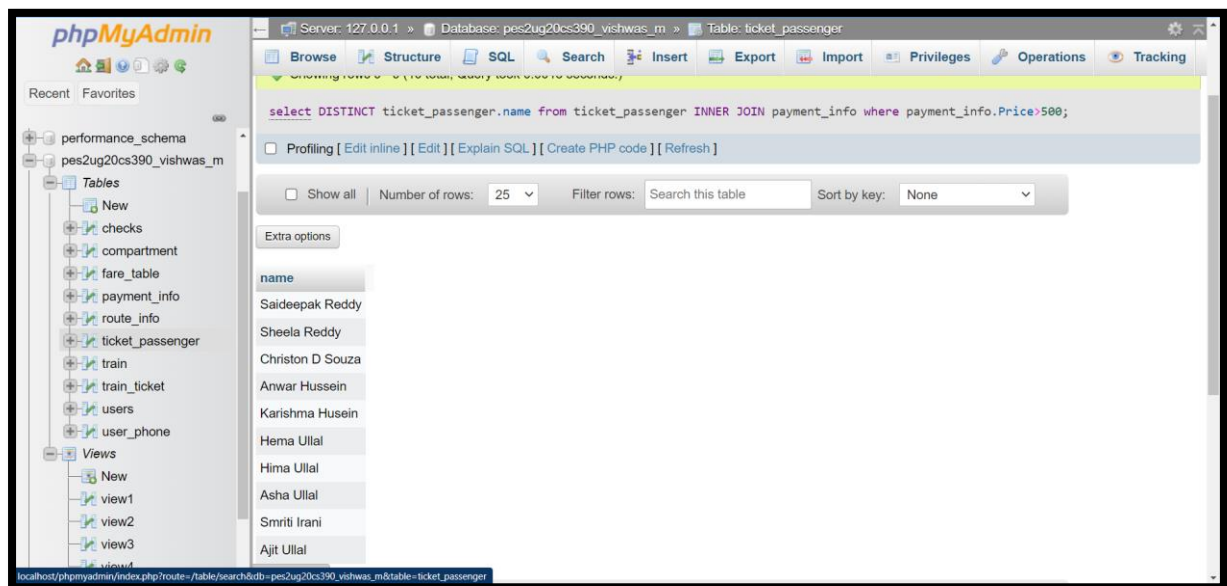
The screenshot shows the phpMyAdmin interface with the 'route\_info' table selected. The table contains the following data:

From_Station_no	To_station_no	Distance
0	0	0
1	2	71
2	3	161
3	4	40
4	5	90
1	3	232
1	4	272
1	5	362
2	4	201
2	5	291
3	5	130
1	2	90
2	3	39
3	4	161
4	5	71
1	3	129
1	4	290

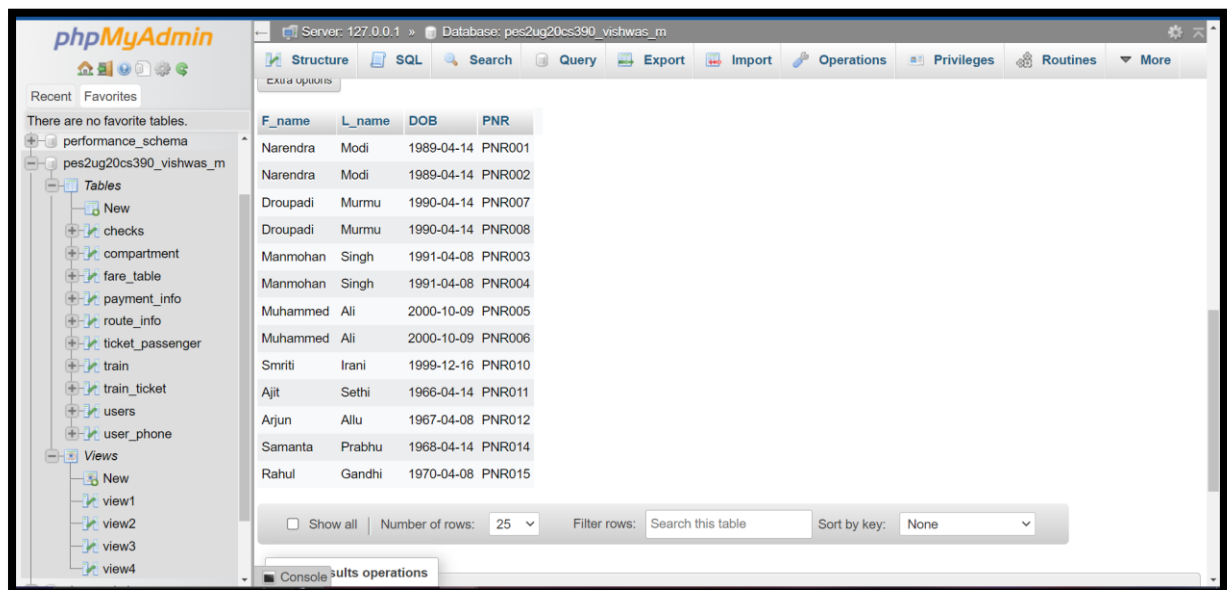
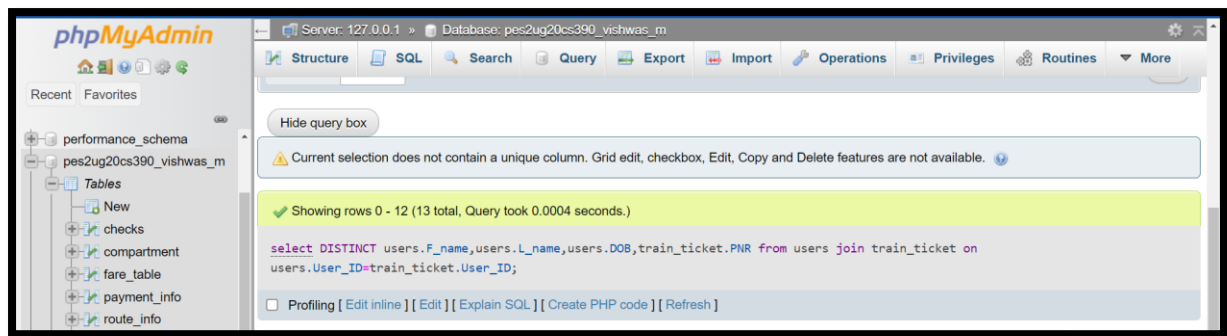
3) Retrieve the Train no of train which is leaving Bengaluru and arriving at Chennai with compartments availability greater than 10



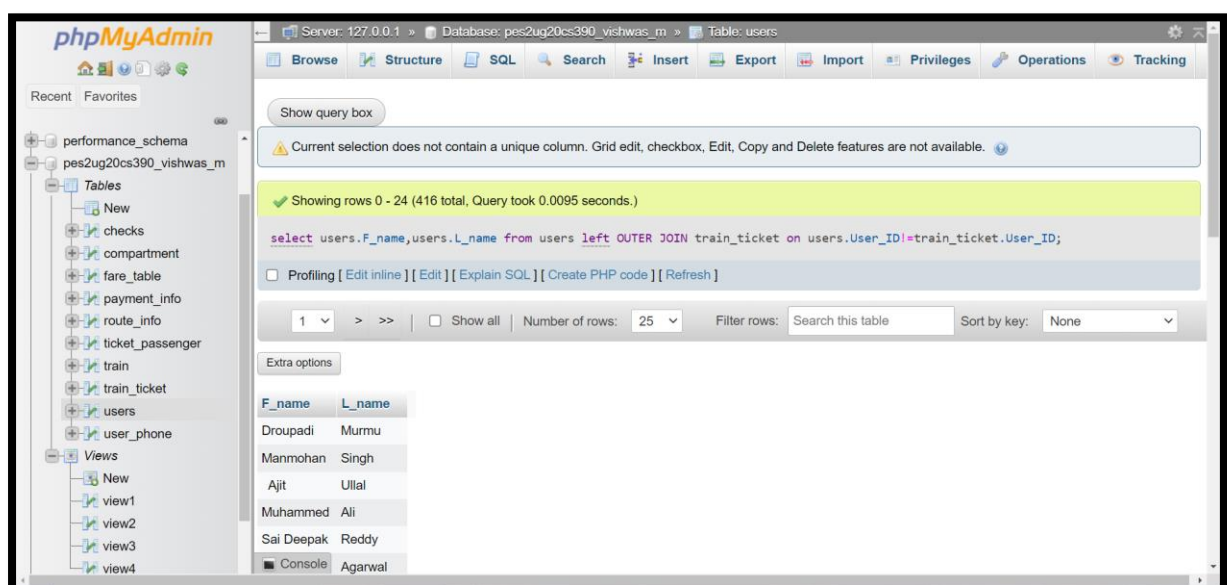
4) Retrieve first and last name of users who have booked a ticket with price greater than 500



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



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





The screenshot shows the phpMyAdmin interface. On the left, the database 'pes2ug20cs390\_vishwas\_m' is selected, and the 'users' table is highlighted under the 'Tables' section. The main area displays the table structure with columns 'F\_name' and 'L\_name'. Below the structure, the table data is shown as a list of rows.

F_name	L_name
Ajit	Sethi
Arjun	Allu
Samanta	Prabhu
Kiran	Bedi
Rahul	Gandhi
Rashkit	Shetty
Rishi	Sunak
Vedavalli	Srinath
Subbu	Saravana
Sheela	Dixit
Margaret	Alva
Arun	Kumar
Anshu	Bhardwaj
Suma	Sampat
Srihari	Udupa
Satish	Kotian

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

The screenshot shows the SQL query editor in phpMyAdmin. A query has been entered to retrieve the PNR, train number, travel date, and user names from the 'train\_ticket' and 'users' tables. The query uses a RIGHT OUTER JOIN. The interface also shows a warning message about the current selection not containing a unique column and a status bar indicating the query was successful.

```

select train_ticket.PNR,train_ticket.train_no,train_ticket.Travel_date,users.F_name,users.L_name from users RIGHT outer JOIN
train_ticket on users.User_ID=train_ticket.User_ID;
  
```

Showing rows 0 - 12 (13 total, Query took 0.0005 seconds.)

Profiling [ Edit inline ] [ Edit ] [ Explain SQL ] [ Create PHP code ] [ Refresh ]



The screenshot shows the phpMyAdmin interface for a database named 'pes2ug20cs390\_vishwas\_m'. The 'Structure' tab is selected, displaying a table with the following columns: PNR, train\_no, Travel\_date, F\_name, and L\_name. The table contains 15 rows of data.

PNR	train_no	Travel_date	F_name	L_name
PNR001	62621	2022-08-07	Narendra	Modi
PNR002	62620	2022-08-14	Narendra	Modi
PNR003	25261	2022-08-01	Manmohan	Singh
PNR004	25260	2022-08-15	Manmohan	Singh
PNR005	58451	2022-08-03	Muhammed	Ali
PNR006	58450	2033-08-04	Muhammed	Ali
PNR007	62621	2022-08-07	Droupadi	Murmu
PNR008	62620	2022-08-02	Droupadi	Murmu
PNR010	25260	2022-08-19	Smriti	Irani
PNR011	62621	2022-08-22	Ajit	Sethi
PNR012	58451	2022-08-11	Arjun	Allu
PNR014	25260	2022-08-17	Samanta	Prabhu
PNR015	25260	2022-08-05	Rahul	Gandhi

8) Retrieve the user id if they've travelled in a train along with train id and name of all trains.

The screenshot shows the phpMyAdmin interface with the 'Query' tab selected. A SQL query is entered in the query box, and the results are displayed below. A warning message indicates that the current selection does not contain a unique column, so grid edit, checkbox, Edit, Copy, and Delete features are not available.

Showing rows 0 - 14 (15 total, Query took 0.0005 seconds.)

```
select train_ticket.User_ID,train.Train_no,train.Train_name from train_ticket right outer join train on train_ticket.train_no = train.Train_no;
```

Profiling [ Edit inline ] [ Edit ] [ Explain SQL ] [ Create PHP code ] [ Refresh ]

The screenshot shows the phpMyAdmin interface with the 'train' table selected. The table has three columns: User\_ID, Train\_no, and Train\_name. The data is as follows:

User_ID	Train_no	Train_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
NULL	0	Train_name
NULL	62622	Delhi Express

9) Retrieve the train no of trains whose destination is not Mangaluru. (Correlated)

The screenshot shows the phpMyAdmin interface with the 'train' table selected. The SQL query entered is:

```
select DISTINCT train.Train_no from train where train.Destination!='Mangaluru';
```

The results show the following train numbers:

Train_no
0
25260
25261
58450
58451
62620
62621
62622

10) Retrieve the User ID who has spent more ticket price than the average ticket price. (Uncorrelated)

Server: 127.0.0.1 » Database: pes2ug20cs390\_vishwas\_m » Table: train\_ticket

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Show query box

⚠ Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available. ⓘ

✓ Showing rows 0 - 8 (9 total, Query took 0.0004 seconds.)

```
SELECT DISTINCT train_ticket.User_ID from train_ticket join payment_info where payment_info.Price>(select AVG(payment_info.Price) from payment_info);
```

☐ Profiling [[Edit inline](#)] [[Edit](#)] [[Explain SQL](#)] [[Create PHP code](#)] [[Refresh](#)]

phpMyAdmin

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☐ Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

Extra options

User_ID
ADM_001
ADM_002
ADM_003
USR_002
USR_007
USR_008
USR_009
USR_010
USR_012

☐ Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

Query results operations

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