

Lab 4 - DML – Insert, Update, Delete, Transactions - Commit, Rollback, Save point

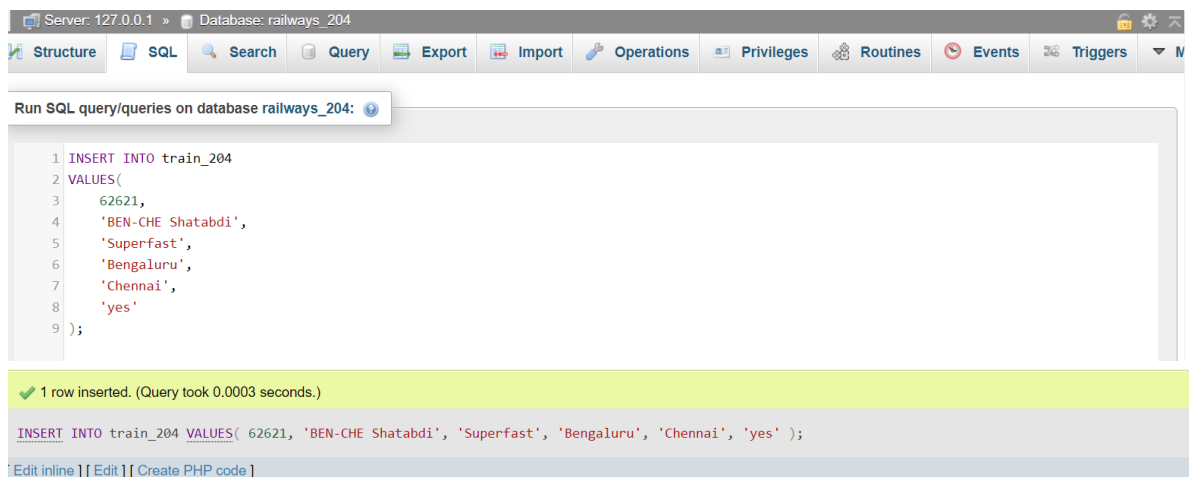
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Assignment: Railway Reservation System

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
 - Inserting into train_204



Server: 127.0.0.1 » Database: railways_204

Structure SQL Search Query Export Import Operations Privileges Routines Events Triggers

Run SQL query/queries on database railways_204:

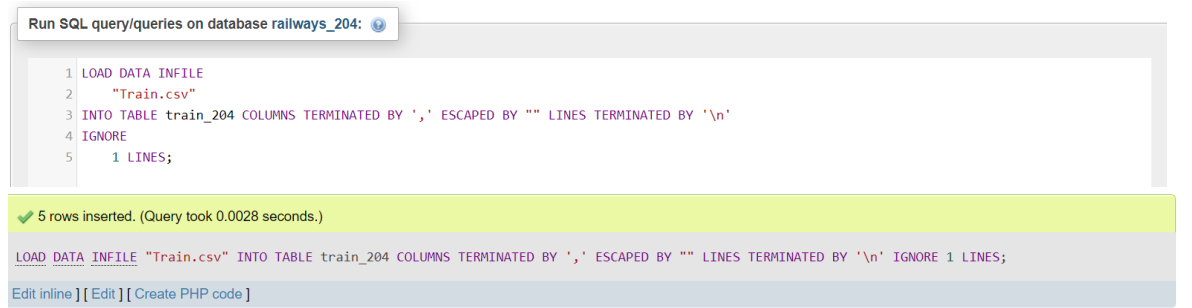
```
1 INSERT INTO train_204
2 VALUES(
3     62621,
4     'BEN-CHE Shatabdi',
5     'Superfast',
6     'Bengaluru',
7     'Chennai',
8     'yes'
9 );
```

✓ 1 row inserted. (Query took 0.0003 seconds.)

```
INSERT INTO train_204 VALUES( 62621, 'BEN-CHE Shatabdi', 'Superfast', 'Bengaluru', 'Chennai', 'yes' );
```

[Edit inline](#) [\[Edit\]](#) [\[Create PHP code\]](#)

- Loading into train_204



Run SQL query/queries on database railways_204:

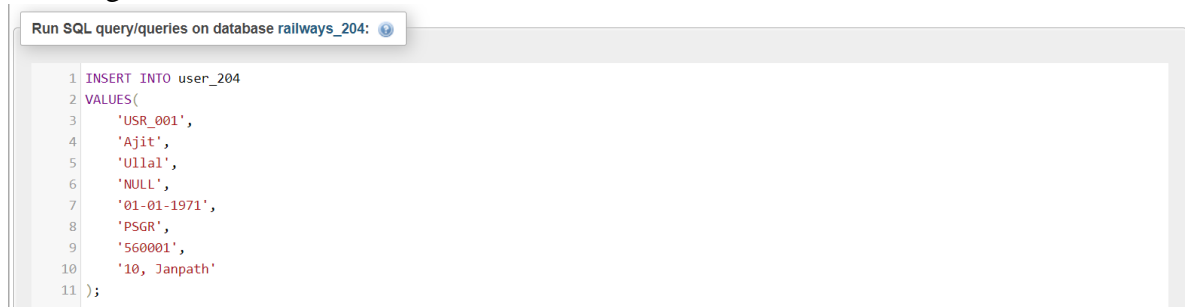
```
1 LOAD DATA INFILE
2     "Train.csv"
3 INTO TABLE train_204 COLUMNS TERMINATED BY ',' ESCAPED BY '"' LINES TERMINATED BY '\n'
4 IGNORE
5     1 LINES;
```

✓ 5 rows inserted. (Query took 0.0028 seconds.)

```
LOAD DATA INFILE "Train.csv" INTO TABLE train_204 COLUMNS TERMINATED BY ',' ESCAPED BY '"' LINES TERMINATED BY '\n' IGNORE 1 LINES;
```

[Edit inline](#) [\[Edit\]](#) [\[Create PHP code\]](#)

- Inserting into user_204



Run SQL query/queries on database railways_204:

```
1 INSERT INTO user_204
2 VALUES(
3     'USR_001',
4     'Ajit',
5     'Ullal',
6     'NULL',
7     '01-01-1971',
8     'PSGR',
9     '560001',
10    '10, Janpath'
11 );
```

✔ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0004 seconds.)

```
CREATE TABLE user_phone_204( user_id VARCHAR(255), phone_no VARCHAR(255), PRIMARY KEY(user_id, phone_no), FOREIGN KEY (user_id) REFERENCES user_204(User_ID) );
```

[\[Edit inline \]](#) [\[Edit \]](#) [\[Create PHP code \]](#)

- Loading into user_204

✔ 1 row inserted. (Query took 0.0003 seconds.)

```
INSERT INTO user_204 VALUES( 'USR_001', 'Ajit', 'Ullal', NULL, '01-01-1971', NULL, 'PSGR', '560001', '10, Janpath' );
```

[\[Edit inline \]](#) [\[Edit \]](#) [\[Create PHP code \]](#)

✔ 32 rows inserted. (Query took 0.0026 seconds.)

```
LOAD DATA INFILE "Train_User.csv" INTO TABLE user_204 COLUMNS TERMINATED BY ',' OPTIONALLY ENCLOSED BY '"' ESCAPED BY '"' LINES TERMINATED BY '\n' IGNORE 1 LINES;
```

- Insert into fare table

✔ 1 row inserted. (Query took 0.0004 seconds.)

```
INSERT INTO fare_204 VALUES('I Class', 'Superfast', 3.3);
```

- Loading into fare table

✔ 8 rows inserted. (Query took 0.0025 seconds.)

```
LOAD DATA INFILE "FareTable.csv" INTO TABLE fare_204 COLUMNS TERMINATED BY ',' OPTIONALLY ENCLOSED BY '"' ESCAPED BY '"' LINES TERMINATED BY '\n' IGNORE 1 LINES;
```

- Loading into compartment table

✔ 20 rows inserted. (Query took 0.0075 seconds.)

```
LOAD DATA INFILE "Compartment.csv" INTO TABLE compartment_204 COLUMNS TERMINATED BY ',' OPTIONALLY ENCLOSED BY '"' ESCAPED BY '"' LINES TERMINATED BY '\n' IGNORE 1 LINES;
```

[\[Edit inline \]](#) [\[Edit \]](#) [\[Create PHP code \]](#)

- Loaded data into route_info table

✔ 44 rows inserted. (Query took 0.0063 seconds.)

```
/*Loading into route_info*/ LOAD DATA INFILE "RouteInfo.csv" INTO TABLE route_info_204 COLUMNS TERMINATED BY ',' OPTIONALLY ENCLOSED BY '"' ESCAPED BY '"' LINES TERMINATED BY '\n' IGNORE 1 LINES;
```

[\[Edit inline \]](#) [\[Edit \]](#) [\[Create PHP code \]](#)

- Loading into user-phone table

✔ 66 rows inserted. (Query took 0.0026 seconds.)

```
/*load data into user-phone*/ LOAD DATA INFILE "User-Phone.csv" INTO TABLE user_phone_204 COLUMNS TERMINATED BY ',' OPTIONALLY ENCLOSED BY '"' ESCAPED BY '"' LINES TERMINATED BY '\n' IGNORE 1 LINES;
```

[\[Edit inline \]](#) [\[Edit \]](#) [\[Create PHP code \]](#)

- Loading into table ticket as insertion manually

✔ 1 row inserted. (Query took 0.0059 seconds.)

```
INSERT INTO ticket_204 VALUES( 'PNR004', 25260, '15-08-2022', 'Mangaluru', 'Chennai', 'ADM_003', '19:15:00', '08:00:00', 'Mail', 'II Class', 'S02' );
```

[\[Edit inline \]](#) [\[Edit \]](#) [\[Create PHP code \]](#)

- Inserting into ticket table

✔ 1 row inserted. (Query took 0.0051 seconds.)

```
INSERT INTO ticket_204 VALUES( 'PNR014', 25260, '17 -08 -2022', 'Kannur', 'Palakkad', 'USR_010', '23:15:00', '04:30:00', 'Mail', 'II Class', 'S01' );
```

[\[Edit inline \]](#) [\[Edit \]](#) [\[Create PHP code \]](#)

```
✓ 1 row inserted. (Query took 0.0020 seconds.)

INSERT INTO ticket_204 VALUES( 'PNR015', 25260, '05-08-2022', 'Palakkad', 'Chennai', 'USR_012', '04:30:00', '08:00:00', 'Mail', 'II Class', 'S01' );

[ Edit inline ] [ Edit ] [ Create PHP code ]

✓ 1 row inserted. (Query took 0.0092 seconds.)

INSERT INTO ticket_204 VALUES( 'PNR003', 25261, '01-08-2022', 'Chennai', 'Mangaluru', 'ADM_003', '18:00:00', '07:30:00', 'Mail', 'III Class', 'G02' );

[ Edit inline ] [ Edit ] [ Create PHP code ]
```

- Inserted into payment table

```
✓ 13 rows inserted. (Query took 0.0069 seconds.)

INSERT INTO payment_info_204 VALUES( '342344', NULL, '5620000000000000', 'IOB', 'PNR001' ),( '676756', NULL, '7370000000000000', 'CANARA BANK', 'PNR002' ),( '978776', NULL, '1154978597435874', 'UNION BANK', 'PNR003' ),( '531343', NULL, '8950000000000000', 'SBI', 'PNR004' ),( '978098', NULL, '9890000000000000', 'INDIAN BANK', 'PNR005' ),( '146445', NULL, '1230000000000000', 'HDFC', 'PNR006' ),( '576768', NULL, '7560000000000000', 'ICICI', 'PNR007' ),( '746745', NULL, '2550000000000000', 'KOTAK', 'PNR008' ),( '867546', NULL, '4660000000000000', 'UNION BANK', 'PNR010' ),( '867547', NULL, '7470000000000000', 'SBI', 'PNR011' ),( '243535', NULL, '2440000000000000', 'UNION BANK', 'PNR012' ),( '354364', [...])

[ Edit ]
```

- Inserted into ticket passenger

```
✓ 21 rows inserted. (Query took 0.0124 seconds.)

/*insert into ticket_passenger*/ INSERT INTO ticket_passenger_204 VALUES( 'F01 -3', 'Saideepak Reddy', '27', 'PNR001' ),( 'F01 -4', 'Sheela Reddy', '25', 'PNR001' ),( 'F02 -11', 'SaiDeepak Reddy', '27', 'PNR002' ),( 'F02 -12', 'Sheela Reddy', '25', 'PNR002' ),( 'G01 -50', 'Anwar Hussein', '32', 'PNR003' ),( 'G01 -51', 'Karishma Husein', '12', 'PNR003' ),( 'G02 -31', 'Anwar Hussein', '32', 'PNR004' ),( 'G02 -32', 'Karishma Husein', '12', 'PNR004' ),( 'S01 -9', 'Ajit Ullal', '31', 'PNR005' ),( 'S01 -10', 'Hema Ullal', '27', 'PNR005' ),( 'S01 -11', 'Hima Ullal', '28', 'PNR005' ),( 'S01 -12', 'Asha Ullal', '21', 'PNR005' ),( 'S01 -35', 'Smriti Irani', '40', 'PNR006' ),( 'S01 -14', 'Christon D Souza', '27', 'PNR007' ),( [...])

[ Edit ]
```

2. Calculate and update age attribute in User Table.

Before update

	User_ID	Firstname	Lastname	age	DOB	user_type	pincode	street_no
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	ADM_001	Narendra	Modi	0	1989-04-14	ADMIN	600047	Old Jail Road
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	ADM_002	Droupadi	Murmu	0	1990-04-14	ADMIN	640012	High Street
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	ADM_003	Manmohan	Singh	0	1991-04-08	ADMIN	575003	Pumpwell Road
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	USR_001	Ajit	Ullal	0	1971-01-01	PSGR	560001	10,Janpath
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	USR_002	Muhammed	Ali	0	2000-10-09	PSGR	560003	"10 Downing"
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	USR_003	Sai Deepak	Reddy	0	1996-12-12	PSGR	600001	"14 Kailsh Marg"
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	USR_004	Rudra	Agarwal	0	1996-12-13	PSGR	600042	"5 Lohia Garden"
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	USR_005	Rahul	Khanna	0	1997-12-14	PSGR	600067	"1 Pink Street"
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	USR_006	Nirmala	Seturaman	0	1998-12-15	PSGR	560105	"3 Blue Avenue"
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	USR_007	Smriti	Irani	0	1999-12-16	PSGR	575014	"4 Banyan Avenie"
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	USR_008	Ajit	Sethi	0	1966-04-14	PSGR	575001	"6 Poes Garden"
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	USR_009	Arjun	Allu	0	1967-04-08	PSGR	575020	"7 Dhamaka street"
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	USR_010	Samanta	Prabhu	0	1968-04-14	PSGR	600042	"8 Clone Colony"
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	USR_011	Kiran	Bedi	0	1969-04-14	PSGR	560003	"56 Brigade Road"
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	USR_012	Rahul	Gandhi	0	1970-04-08	PSGR	475001	Mirza road

Query

```
✓ 33 rows affected. (Query took 0.0030 seconds.)

/*2. Calculate and update age attribute in User Table.*/ UPDATE user_204 SET age = DATE_FORMAT( FROM_DAYS(DATEDIFF(NOW(), DOB)), '%Y') + 0;
```

Output

				User_ID	Firstname	Lastname	age	DOB	user_type	pincode	street_no
<input type="checkbox"/>				ADM_001	Narendra	Modi	33	1989-04-14	ADMIN	600047	Old Jail Road
<input type="checkbox"/>				ADM_002	Droupadi	Murmu	32	1990-04-14	ADMIN	640012	High Street
<input type="checkbox"/>				ADM_003	Manmohan	Singh	31	1991-04-08	ADMIN	575003	Pumpwell Road
<input type="checkbox"/>				USR_001	Ajit	Ullal	51	1971-01-01	PSGR	560001	10,Janpath
<input type="checkbox"/>				USR_002	Muhammed	Ali	21	2000-10-09	PSGR	560003	"10 Downing"
<input type="checkbox"/>				USR_003	Sai Deepak	Reddy	25	1996-12-12	PSGR	600001	"14 Kailsh Marg"
<input type="checkbox"/>				USR_004	Rudra	Agarwal	25	1996-12-13	PSGR	600042	"5 Lohia Garden"
<input type="checkbox"/>				USR_005	Rahul	Khanna	24	1997-12-14	PSGR	600067	"1 Pink Street"
<input type="checkbox"/>				USR_006	Nirmala	Seturaman	23	1998-12-15	PSGR	560105	"3 Blue Avenue"
<input type="checkbox"/>				USR_007	Smriti	Irani	22	1999-12-16	PSGR	575014	"4 Banyan Avenie"
<input type="checkbox"/>				USR_008	Ajit	Sethi	56	1966-04-14	PSGR	575001	"6 Poes Garden"
<input type="checkbox"/>				USR_009	Arjun	Allu	55	1967-04-08	PSGR	575020	"7 Dhamaka street"
<input type="checkbox"/>				USR_010	Samanta	Prabhu	54	1968-04-14	PSGR	600042	"8 Clone Colony"
<input type="checkbox"/>				USR_011	Kiran	Bedi	53	1969-04-14	PSGR	560003	"56 Brigade Road"
<input type="checkbox"/>				USR_012	Rahul	Gandhi	52	1970-04-08	PSGR	475001	Mirza road
<input type="checkbox"/>				USR_013	Rashkit	Shetty	51	1971-04-14	PSGR	560009	JC Road
<input type="checkbox"/>				USR_014	Rishi	Sunak	50	1972-04-14	PSGR	600034	Anna Sali
<input type="checkbox"/>				USR_015	Vedavalli	Srinath	49	1973-04-14	PSGR	560054	"Church Street Bangalore"
<input type="checkbox"/>				USR_016	Subbu	Saravana	48	1974-04-14	PSGR	600043	American Street
<input type="checkbox"/>				USR_017	Sheela	Dixit	47	1975-04-08	PSGR	560048	Kasturba Road
<input type="checkbox"/>				USR_018	Margaret	Alva	46	1976-04-14	PSGR	560008	New BEL Road
Console											
<input type="checkbox"/>				USR_019	Arun	Kumar	45	1977-04-14	PSGR	600046	Mint Street
<input type="checkbox"/>				USR_020	Anshu	Bhardwaj	44	1978-04-14	PSGR	575001	KSR Road
<input type="checkbox"/>				USR_021	Suma	Sampat	43	1979-04-08	PSGR	560012	"Old Airport Road Bangalore"
<input type="checkbox"/>				USR_022	Srihari	Udupa	42	1980-04-14	PSGR	560015	Suranjan Das Road
	<input type="checkbox"/> Check all	With selected:					Export				
1	>	>>	<input type="checkbox"/> Show all	Number of rows:	25	Filter rows:	Search this table	Sort by key:	None		

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

Query

✓ Showing rows 0 - 11 (12 total, Query took 0.0009 seconds.)

```
/*Q2*/ SELECT * FROM route_info_204 WHERE ( DISTANCE <= 150 AND DISTANCE >= 70 );
```

Output

		from_station_no	to_station_no	from_station_name	to_station_name	DISTANCE	Train_No
<input type="checkbox"/>	Edit Copy Delete	1	2	Mangaluru	Kannur	131	25260
<input type="checkbox"/>	Edit Copy Delete	1	2	Chennai	Palakkad	130	25261
<input type="checkbox"/>	Edit Copy Delete	1	2	Bengaluru	Mysore	139	58451
<input type="checkbox"/>	Edit Copy Delete	1	2	Chennai	Sholingur	90	62620
<input type="checkbox"/>	Edit Copy Delete	1	2	Bengaluru	Bangarpet	71	62621
<input type="checkbox"/>	Edit Copy Delete	1	3	Chennai	Katpadi	129	62620
<input type="checkbox"/>	Edit Copy Delete	3	4	Kannur	Mangaluru	131	25261
<input type="checkbox"/>	Edit Copy Delete	3	4	Mysore	Bengaluru	139	58450
<input type="checkbox"/>	Edit Copy Delete	3	5	Katpadi	Chennai	130	62621
<input type="checkbox"/>	Edit Copy Delete	4	4	Palakkad	Chennai	130	25260
<input type="checkbox"/>	Edit Copy Delete	4	5	Bangarpet	Bengaluru	71	62620
<input type="checkbox"/>	Edit Copy Delete	4	5	Sholingur	Chennai	90	62621

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

Query

Run SQL query/queries on database railways_204:

```

1  /*Q3*/
2  SELECT
3      *
4  FROM
5      route_info_204
6  WHERE
7      (
8          (
9              from_station_name = 'Chennai' AND to_station_name = 'Sholingur'
10             ) OR (
11                 from_station_name = 'Sholingur' AND to_station_name = 'Chennai'
12             )
13         )

```

Output

Showing rows 0 - 2 (3 total, Query took 0.0008 seconds.)

```
/*Q3*/ SELECT * FROM route_info_204 WHERE ( ( from_station_name = 'Chennai' AND to_station_name = 'Sholingur' ) OR( from_station_name = 'Sholingur' AND to_station_name = 'Chennai' ) );
```

[Edit inline](#) [Edit](#) [Create PHP code](#)

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

Extra options

			from_station_no	to_station_no	from_station_name	to_station_name	DISTANCE	Train_No	
<input type="checkbox"/>				1	2	Chennai	Sholingur	90	62620
<input type="checkbox"/>				2	5	Sholingur	Chennai	271	62620
<input type="checkbox"/>				4	5	Sholingur	Chennai	90	62621

☐ Check all | With selected: Edit Copy Delete Export

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

Query

Run SQL query/queries on database railways_204:

```
1 /*Train details not mail*/
2 SELECT
3 *
4 FROM
5 train_204
6 WHERE
7 train_type != 'Mail';
```

Output

Showing rows 0 - 3 (4 total, Query took 0.0002 seconds.)

```
/*Train details not mail*/ SELECT * FROM train_204 WHERE train_type != 'Mail';
```

[Edit inline](#) [Edit](#) [Create PHP code](#)

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

Extra options

				Train_no	Train_name	Train_Type	SOURCE	destination	availability
<input type="checkbox"/>				58450	MAN-BEN Express	Fast	Mangaluru	Bengaluru	yes
<input type="checkbox"/>				58451	BEN-MAN Express	Fast	Bengaluru	Mangaluru	yes
<input type="checkbox"/>				62620	CHE-BEN Shatabdi	Superfast	Chennai	Bengaluru	No
<input type="checkbox"/>				62621	BEN-CHE Shatabdi	Superfast	Bengaluru	Chennai	yes

☐ Check all | With selected: Edit Copy Delete Export

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

Console

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

Query

```
Run SQL query/queries on database railways_204: ⓘ

1  /*Display train name that goes from Chennai to Bangalore*/
2  SELECT
3      Train_name
4  FROM
5      train_204
6  WHERE
7      (
8          SOURCE = 'Chennai' AND destination = 'Bengaluru'
9      );
```

Output

✓ Showing rows 0 - 0 (1 total, Query took 0.0003 seconds.)

```
/*Display train name that goes from Chennai to Bangalore*/ SELECT Train_name FROM train_204 WHERE ( SOURCE = 'Chennai' AND destination = 'Bengaluru' );
```

[Edit inline] [Edit] [Create PHP code]

☐ Show all | Number of rows: 25 | Filter rows: Search this table

Extra options

	Train_name
<input type="checkbox"/> Edit Copy Delete	CHE-BEN Shatabdi

↑ ☐ Check all With selected: Edit Copy Delete Export

☐ Show all | Number of rows: 25 | Filter rows: Search this table




























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

Query

```
Run SQL query/queries on database railways_204: ⓘ

1  /*List of trains starting from chennai after 8:00*/
2  SELECT
3      *
4  FROM
5      ticket_204
6  WHERE
7      (
8          (departure = 'Chennai') AND(
9              departure_time >= TIME('08 :00 :00')
10         )
11     );
```


Output

				user_id	firstname	lastname
<input type="checkbox"/>		Edit		Copy		Delete
				USR_003	Sai Deepak	Reddy
<input type="checkbox"/>		Edit		Copy		Delete
				USR_007	Smriti	Irani
<input type="checkbox"/>		Edit		Copy		Delete
				USR_010	Samanta	Prabhu
<input type="checkbox"/>		Edit		Copy		Delete
				USR_016	Subbu	Saravana
<input type="checkbox"/>		Edit		Copy		Delete
				USR_017	Sheela	Dixit
<input type="checkbox"/>		Edit		Copy		Delete
				USR_021	Suma	Sampat
<input type="checkbox"/>		Edit		Copy		Delete
				USR_022	Srihari	Udupa
<input type="checkbox"/>		Edit		Copy		Delete
				USR_023	Satish	Kotian
<input type="checkbox"/>		Edit		Copy		Delete
				USR_024	Shradha	Nayar

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

Query

Run SQL query/queries on database railways_204: 

```
1 /*10. Find the availability of I Class compartment of the train number 62621*/
2 SELECT TYPE
3     ,
4     train_number,
5     availability
6 FROM
7     compartment_204
8 WHERE
9     train_number = 62621;
```

Output

✓ Showing rows 0 - 4 (5 total, Query took 0.0005 seconds.)

```
/*10. Find the availability of I Class compartment of the train number 62621*/  
SELECT TYPE , train_number, availability FROM compartment_204  
WHERE train_number = 62621;
```

[Edit inline] [Edit] [Create PHP code]

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

Extra options

	TYPE	train_number	availability
<input type="checkbox"/> Edit Copy Delete	I Class	62621	6
<input type="checkbox"/> Edit Copy Delete	III Class	62621	10
<input type="checkbox"/> Edit Copy Delete	III Class	62621	12
<input type="checkbox"/> Edit Copy Delete	II Class	62621	4
<input type="checkbox"/> Edit Copy Delete	II Class	62621	6

↑ ☐ Check all With selected: Edit Copy Delete Export

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

Query

Run SQL query/queries on database railways_204: ?

```
1 /*11. Find the PNR and Transaction ID of the users who made payment via Union Bank.*/  
2 SELECT  
3     pnr,  
4     transaction_no  
5 FROM  
6     payment_info_204  
7 WHERE  
8     bank = 'UNION BANK';
```

Output

✓ Showing rows 0 - 3 (4 total, Query took 0.0004 seconds.)

```
/*11. Find the PNR and Transaction ID of the users who made payment via Union Bank.*/  
SELECT pnr, transaction_no FROM payment_info_204 WHERE bank = 'UNION BANK';
```

[Edit inline] [Edit] [Create PHP code]

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

Extra options

	pnr	transaction_no
<input type="checkbox"/> Edit Copy Delete	PNR012	243535
<input type="checkbox"/> Edit Copy Delete	PNR015	758900
<input type="checkbox"/> Edit Copy Delete	PNR010	867546
<input type="checkbox"/> Edit Copy Delete	PNR003	978776

Task-II: Use DCL and TCL statements for the following:

1. Grant privileges on different tables to users and observe the effect.

Query to see all users

Showing rows 0 - 3 (4 total, Query took 0.0011 seconds)

```
select host, user from mysql.user;
```

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

☐ Show all | Number of rows: 25 | Filter rows:

Extra options

Host	User
127.0.0.1	root
:::1	root
localhost	pma
localhost	root

Grant privileges for all users

Run SQL query/queries on database railway: ?

```
1 GRANT ALL
2 ON
3     compartment_204 TO 'pma'@'localhost';
4 SHOW GRANTS FOR
5     'pma'@'localhost';
```

Output of granting privileges to all users

Show query box

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0019 seconds.)

```
GRANT ALL ON compartment_204 TO 'pma'@'localhost';
```

[\[Edit inline \]](#) [\[Edit \]](#) [\[Create PHP code \]](#)

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

Your SQL query has been executed successfully.

```
SHOW GRANTS FOR 'pma'@'localhost';
```

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

Extra options

Grants for pma@localhost

```
GRANT USAGE ON *.* TO 'pma'@'localhost'
GRANT ALL PRIVILEGES ON `railway`.`compartment_204...`
```

Query results operations

Print Copy to clipboard Create view

2. Revoke UPDATE & DELETE privileges on any tables and observe the effect if any deletion/updation is performed.

Revoke update and delete command

```
Run SQL query/queries on database railway: ⓘ

1 REVOKE
2 UPDATE
3
4 DELETE
5 ON
6   compartment_204
7 FROM
8   'pma'@'localhost';
9 SHOW GRANTS FOR
10  'pma'@'localhost';
```

Output

```
✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0011 seconds.)

REVOKE UPDATE , DELETE ON compartment_204 FROM 'pma'@'localhost';
[ Edit inline ] [ Edit ] [ Create PHP code ]

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

Your SQL query has been executed successfully

SHOW GRANTS FOR 'pma'@'localhost';
☐ Profiling [ Edit inline ] [ Edit ] [ Create PHP code ] [ Refresh ]

Extra options

Grants for pma@localhost
GRANT USAGE ON *.* TO 'pma'@'localhost'
GRANT SELECT, INSERT, CREATE, DROP, REFERENCES, IN...
```

3. Create different save points and perform some insert/update/delete operations. Observe the effect of commit & rollback operations and release any created savepoints.

Delete operation

```
Run SQL query/queries on database railway: ⓘ

1 SAVEPOINT
2   sp1;
3 DELETE
4 FROM
5   fare_204
6 WHERE
7   train_type = 'Fast'; SAVEPOINT sp2;
```

Output of delete operation

Show query box

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0002 seconds.)

```
SAVEPOINT sp1;
```

[Edit inline] [Edit] [Create PHP code]

✓ 3 rows affected. (Query took 0.0023 seconds.)

```
DELETE FROM fare_204 WHERE train_type = 'Fast';
```


[Edit inline] [Edit] [Create PHP code]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0002 seconds.)

```
SAVEPOINT sp2;
```

[Edit inline] [Edit] [Create PHP code]

Update operation

Run SQL query/queries on database railway: 

```
1 SAVEPOINT
2   sp4;
3 UPDATE
4   fare_204
5 SET
6   fare_per_km = 1.56
7 WHERE
8   compartment_type = 'II Class'; SAVEPOINT sp3;
```

Effect on update operation

Show query box

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0002 seconds.)

```
SAVEPOINT sp4;
```

[Edit inline] [Edit] [Create PHP code]

✓ 2 rows affected. (Query took 0.0015 seconds.)

```
UPDATE fare_204 SET fare_per_km = 1.56 WHERE compartment_type = 'II Class';
```

[Edit inline] [Edit] [Create PHP code]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0001 seconds.)

```
SAVEPOINT sp3;
```

[Edit inline] [Edit] [Create PHP code]

Effect of commit

```
C:\xampp\mysql\bin\mysql.exe
MariaDB [railway_810]> select @@autocommit;
+-----+
| @@autocommit |
+-----+
|           1 |
+-----+
1 row in set (0.000 sec)

MariaDB [railway_810]> set autocommit=0;
Query OK, 0 rows affected (0.000 sec)

MariaDB [railway_810]> select @@autocommit;
+-----+
| @@autocommit |
+-----+
|           0 |
+-----+
1 row in set (0.000 sec)

MariaDB [railway_810]> delete from ticket_passenger_204 where age=40;
Query OK, 1 row affected (0.000 sec)

MariaDB [railway_810]> commit;
Query OK, 0 rows affected (0.001 sec)
```

```
C:\xampp\mysql\bin\mysql.exe
MariaDB [railway_810]> delete from ticket_passenger_204 where PNR='PNR005';
Query OK, 0 rows affected (0.001 sec)

MariaDB [railway_810]> savepoint A;
Query OK, 0 rows affected (0.000 sec)

MariaDB [railway_810]> delete from ticket_passenger_204 where age=21;
Query OK, 3 rows affected (0.001 sec)

MariaDB [railway_810]> select * from ticket_passenger_204;
+-----+-----+-----+-----+
| seat_No | NAME           | age | PNR  |
+-----+-----+-----+-----+
| F01-3   | Saideepak Reddy | 27  | PNR001 |
| F01-4   | Sheela Reddy   | 25  | PNR001 |
| F02-11  | SaiDeepak Reddy | 27  | PNR002 |
| F02-12  | Sheela Reddy   | 25  | PNR002 |
| G01-50  | Anwar Hussein  | 32  | PNR003 |
| G02-31  | Anwar Hussein  | 32  | PNR004 |
| S01-10  | Hema Ullal     | 27  | PNR005 |
| S01-11  | Hima Ullal     | 28  | PNR005 |
| S01-9   | Ajit Ullal     | 31  | PNR005 |
| S01-14  | Christon D Souza | 27  | PNR007 |
| F01-8   | Christon D Souza | 27  | PNR008 |
| F01-7   | Sheela Seth    | 33  | PNR011 |
| F01-13  | Ramya R        | 45  | PNR012 |
| S01-2   | Shradha Nayar  | 20  | PNR014 |
| S01-29  | Khushi Jha     | 18  | PNR015 |
+-----+-----+-----+-----+
15 rows in set (0.000 sec)
```

```

C:\xampp\mysql\bin\mysql.exe
MariaDB [railway_810]> update ticket_passenger_204 set age=37 where age=27;
Query OK, 5 rows affected (0.001 sec)
Rows matched: 5  Changed: 5  Warnings: 0

MariaDB [railway_810]> savepoint C;
Query OK, 0 rows affected (0.000 sec)

```

Effect of rollback

```

MariaDB [railway_810]> select * from ticket_passenger_204;
+-----+-----+-----+-----+
| seat_No | NAME           | age | PNR   |
+-----+-----+-----+-----+
| F01-3   | Saideepak Reddy | 27  | PNR001 |
| F01-4   | Sheela Reddy    | 25  | PNR001 |
| F02-11  | SaiDeepak Reddy | 27  | PNR002 |
| F02-12  | Sheela Reddy    | 25  | PNR002 |
| G01-50  | Anwar Hussein   | 32  | PNR003 |
| G02-31  | Anwar Hussein   | 32  | PNR004 |
| S01-10  | Hema Ullal      | 27  | PNR005 |
| S01-11  | Hima Ullal      | 28  | PNR005 |
| S01-9   | Ajit Ullal      | 31  | PNR005 |
| S01-14  | Christon D Souza | 27  | PNR007 |
| F01-8   | Christon D Souza | 27  | PNR008 |
| F01-7   | Sheela Seth     | 33  | PNR011 |
| F01-13  | Ramya R         | 45  | PNR012 |
| S01-2   | Shradha Nayar   | 20  | PNR014 |
| S01-29  | Khushi Jha      | 18  | PNR015 |
+-----+-----+-----+-----+
15 rows in set (0.000 sec)

MariaDB [railway_810]> select * from ticket_passenger_204;
+-----+-----+-----+-----+
| seat_No | NAME           | age | PNR   |
+-----+-----+-----+-----+
| F01-3   | Saideepak Reddy | 27  | PNR001 |
| F01-4   | Sheela Reddy    | 25  | PNR001 |
| F02-11  | SaiDeepak Reddy | 27  | PNR002 |
| F02-12  | Sheela Reddy    | 25  | PNR002 |
| G01-50  | Anwar Hussein   | 32  | PNR003 |
| G02-31  | Anwar Hussein   | 32  | PNR004 |
| S01-10  | Hema Ullal      | 27  | PNR005 |
| S01-11  | Hima Ullal      | 28  | PNR005 |
| S01-9   | Ajit Ullal      | 31  | PNR005 |
| S01-14  | Christon D Souza | 27  | PNR007 |
| F01-8   | Christon D Souza | 27  | PNR008 |
| F01-7   | Sheela Seth     | 33  | PNR011 |
| F01-13  | Ramya R         | 45  | PNR012 |
| S01-2   | Shradha Nayar   | 20  | PNR014 |
| S01-29  | Khushi Jha      | 18  | PNR015 |
+-----+-----+-----+-----+
15 rows in set (0.000 sec)

MariaDB [railway_810]>

```

Releasing savepoint

```
C:\xampp\mysql\bin\mysql.exe
MariaDB [railway_810]> release savepoint B;
Query OK, 0 rows affected (0.000 sec)

MariaDB [railway_810]> rollback to B;
ERROR 1305 (42000): SAVEPOINT B does not exist
MariaDB [railway_810]>
```