Lab 4 - DML

(Insert, Update, Delete, Transactions - Commit, Rollback, Save point)

Name:	R Chaitanya Madhav
SRN:	PES1UG20CS634
Section:	K

1. Insert the shared data into the respective tables using appropriate insert query.

Insert into train_user(user_id, user_type, firstname,
lastname, age, dob, pincode, street_number)

Insert(ADM_001,admin, Narendra, Modi, Null, 1989-04-14, 600047, street_number);

And so on...

Query OK, 0 rows affected (0.000 sec) Query OK, 0 rows affected (0.000 sec) Query OK. 0 rows affected (0.000 sec) Query OK, 0 rows affected (0.000 sec) Query OK, 0 rows affected (0.000 sec) Query OK, 0 rows affected (0.000 sec) Query OK. 8 rows affected (0.181 sec) Query OK, 20 rows affected (0.001 sec) Records: 20 Duplicates: 0 Warnings: 0 Query OK. 0 rows affected (0.095 sec) Query OK, 9 rows affected (0.001 sec) Records: 9 Duplicates: θ Warnings: θ Query OK, 0 rows affected (0.094 sec) Query OK, 13 rows affected (0.001 sec) Records: 13 Duplicates: θ Warnings: θ Query OK, 0 rows affected (0.096 sec) Query OK, 44 rows affected (0.002 sec) Records: 44 Duplicates: 0 Warnings: 0 Query OK, 0 rows affected (0.096 sec) Query OK, 13 rows affected (θ.θθ2 sec) Records: 13 Duplicates: θ Warnings: θ Query OK, 0 rows affected (0.112 sec) Query OK, 21 rows affected (0.001 sec) Records: 21 Duplicates: θ Warnings: θ Query OK, 0 rows affected (0.097 sec) Query OK, 6 rows affected (0.001 sec) Records: 6 Duplicates: 0 Warnings: Query OK, 0 rows affected (0.096 sec) Query OK, 33 rows affected (0.002 sec) Records: 33 Duplicates: 0 Warnings: Query OK, 0 rows affected (0.094 sec) Query OK, 66 rows affected (0.002 sec) Records: 66 Duplicates: θ Warnings: θ Query OK, 0 rows affected (0.108 sec)

Query OK, 0 rows affected (0.210 sec) Records: 0 Duplicates: 0 Warnings: 0 Query OK, 0 rows affected (0.214 sec) Records: 0 Duplicates: 0 Warnings: 0 Query OK, 0 rows affected (0.212 sec) Records: 0 Duplicates: 0 Warnings: 0 Query OK, 0 rows affected (0.212 sec) Records: 0 Duplicates: 0 Warnings: 0 Query OK, 0 rows affected (0.215 sec) Records: 0 Duplicates: 0 Warnings: 0 Query OK, 0 rows affected (0.218 sec) Records: 0 Duplicates: 0 Warnings: 0 Query OK, 0 rows affected (0.208 sec) Records: 0 Duplicates: 0 Warnings: 0 Query OK, 0 rows affected (0.212 sec) Records: 0 Duplicates: 0 Warnings: 0 Query OK, 0 rows affected (0.195 sec) Records: 0 Duplicates: 0 Warnings: 0 Query OK, 0 rows affected (0.211 sec) Records: 0 Duplicates: 0 Warnings: 0 Query OK, 20 rows affected (0.197 sec) Records: 20 Duplicates: 0 Warnings: 0 Query OK, 13 rows affected (0.192 sec) Records: 13 Duplicates: 0 Warnings: 0 Query OK, 44 rows affected (0.193 sec) Records: 44 Duplicates: 0 Warnings: 0 Query OK, 13 rows affected (0.197 sec) Records: 13 Duplicates: 0 Warnings: 0 Query OK, 21 rows affected (0.191 sec) Records: 21 Duplicates: 0 Warnings: Query OK, 66 rows affected (0.195 sec) Records: 66 Duplicates: 0 Warnings: 0 Query OK, 103 rows affected (0.197 sec) Records: 103 Duplicates: 0 Warnings: 0 Query OK, 0 rows affected (0.000 sec) MariaDB [629_rrs]>

MariaDB [cs	634_rrs]> se	elect * from t	rain_user;				
user_id	user_type	firstname	lastname	age	dob	pincode	street_number
ADM 001	ADMIN	Narendra	Modi	NULL	1989-04-14	600047	Old Jail Road
ADM 002	ADMIN	Droupadi	Murmu	NULL	1990-04-14	640012	High Street
ADM 003	ADMIN	Manmohan	Singh	NULL	1991-04-08	575003	Pumpwell Road
USR 001	PSGR	Ajit	Ullal	NULL	1971-01-01	560001	10, Janpath
USR 002	PSGR	Muhammed	Ali	NULL	2000-10-09	560003	10, Downing
USR 003	PSGR	Sai Deepak	Reddy	NULL	1996-12-12	600001	14, Kailsh Marg
USR 004	PSGR	Rudra	Agarwal	NULL	1996-12-13	600042	5, Lohia Garden
USR 005	PSGR	Rahul	Khanna	NULL	1997-12-14	600067	1, Pink Street
USR_006	PSGR	Nirmala	Seturaman	NULL	1998-12-15	560105	3, Blue Avenue
USR_007	PSGR	Smriti	Irani	NULL	1999-12-16	575014	4, Banyan Avenie
USR_008	PSGR	Ajit	Sethi	NULL	1966-04-14	575001	6, Poes Garden
USR_009	PSGR	Arjun	Allu	NULL	1967-04-08	575020	7, Dhamaka street
USR_010	PSGR	Samanta	Prabhu	NULL	1968-04-14	600042	8, Clone Colony
USR_011	PSGR	Kiran	Bedi	NULL	1969-04-14	560003	56, Brigade Road
USR_012	PSGR	Rahul	Gandhi	NULL	1970-04-08	475001	Mirza road
USR_013	PSGR	Rashkit	Shetty	NULL	1971-04-14	560009	JC Road
USR_014	PSGR	Rishi	Sunak	NULL	1972-04-14	600034	Anna Sali
USR_015	PSGR	Vedavalli	Srinath	NULL	1973-04-14	560054	Church Street, Bangalore
USR_016	PSGR	Subbu	Saravana	NULL	1974-04-14	600043	American Street
USR_017	PSGR	Sheela	Dixit	NULL	1975-04-08	560048	Kasturba Road
USR_018	PSGR	Margaret	Alva	NULL	1976-04-14	560008	New BEL Road
USR_019	PSGR	Arun	Kumar	NULL	1977-04-14	600046	Mint Street
USR_020	PSGR	Anshu	Bhardwaj	NULL	1978-04-14	575001	KSR Road
USR_021	PSGR	Suma	Sampat	NULL	1979-04-08	560012	Old Airport Road, Bangalore
USR_022	PSGR	Srihari	Udupa	NULL	1980-04-14	560015	Suranjan Das Road
USR_023	PSGR	Satish	Kotian	NULL	1981-04-14	600044	T Nagar
USR_024	PSGR	Shradha	Nayar	NULL	1982-04-08	560006	M G Road, Bangalore
USR_025	PSGR	Manisha	Solanki	NULL	1983-04-08	575030	M G Road
USR_026	PSGR	Bharti	Devgan	NULL	1984-04-14	560059	NAL Wind Tunnel Road
USR_027	PSGR	Roopa	Ram	NULL	1985-04-14	575023	Bunder Road

ariaDB [cs634_rrs]> UPDATE train_user_SET age = DATE_FORMAT(FROM_DAYS(DATEDIFF(now(),DOB)),'%Y')+0; puery OK, 33 rows affected (0.016 sec)
Nows matched: 33 Changed: 33 Warnings: 0 ariaDB [cs634_rrs]> select * from train_user; user_id | user_type | firstname | lastname | age | dob | pincode | street_number ADM_001 | 1989-04-14 | 1990-04-14 | 1991-04-08 | ADMIN Modi 600047 Old Jail Road Narendra Droupadi Manmohan ADM_002 ADM_003 ADMIN ADMIN Murmu Singh 640012 575003 High Street
Pumpwell Road 32 31 51 25 25 24 22 56 55 54 57 59 49 48 47 46 45 44 1991-04-08 1971-01-01 2000-10-09 1996-12-12 1996-12-13 1997-12-14 1998-12-15 10, Janpath 10, Downing USR_001 USR_002 PSGR PSGR Ajit Muhammed Ullal Ali 560001 560003 14, Kailsh Marg
5, Lohia Garden
1, Pink Street
3, Blue Avenue
4, Banyan Avenie
6, Poes Garden
7 Dhamaka street Sai Deepak Rudra Rahul Nirmala USR_003 USR_004 Reddy 600001 600042 **PSGR** Agarwal Khanna Seturaman PSGR USR_005 USR_006 USR_007 USR_008 **PSGR** 600067 5600067 560105 575014 575001 575020 600042 560003 PSGR Nirmala Smriti Ajit Arjun Samanta Kiran Rahul Rashkit 1999-12-16 1966-04-14 1967-04-08 PSGR PSGR Irani Sethi Allu Prabhu Bedi 7, Dhamaka street 8, Clone Colony 56, Brigade Road Mirza road JC Road USR 009 **PSGR** USR_010 USR_011 PSGR PSGR 1968-04-14 1969-04-14 USR_012 USR_013 PSGR PSGR Gandhi Shetty 1970-04-08 1971-04-14 475001 560009 USR_014 USR_015 PSGR PSGR Rishi Vedavalli Sunak Srinath 1972-04-14 1973-04-14 600034 560054 Anna Sali Church Street, Bangalore 560054 600043 560008 600046 575001 560012 560015 USR_016 USR_017 PSGR PSGR Subbu Sheela Saravana Dixit 1974-04-14 1975-04-08 American Street Kasturba Road USR_018 USR_019 Margaret Arun Alva Kumar 1976-04-14 1977-04-14 New BEL Road Mint Street **PSGR** USR_020 USR_021 USR_022 1978-04-14 1979-04-08 1980-04-14 KSR Road Old Airport Road, Bangalore Suranjan Das Road Anshu **PSGR** Bhardwai PSGR PSGR Suma Srihari Sampat Udupa Srihari Satish Shradha Manisha Bharti USR_023 USR_024 PSGR PSGR 1981-04-14 1982-04-08 600044 560006 T Nagar M G Road, Bangalore Nayar Solanki Devgan USR_025 USR_026 PSGR PSGR 1983-04-08 1984-04-14 575030 560059 NAL Wind Tunnel Road Ram Ram Naik Murthy Bunder Road Lavelle Road Thiru V ka Salai Bejai New Road USR_027 USR_028 PSGR PSGR Roopa Pallavi 1985-04-14 1986-04-08 575023 560044 USR_029 USR_030 **PSGR** Ravi Virat 1987-04-14 1988-04-14 600045

MariaDB [cs634_rrs]	1>1+ * 6				
nariaud [CS654_rrs)> select ~ trom	route_into;			
from_station_no	to_station_no	from_station_name	to_station_name	distance	train_no
1	2	Mangaluru	Kannur	131	25260
1	3	Mangaluru	Palakkad	351	25260
1	4	Mangaluru	Chennai	481	25260
2	3	Kannur	Palakkad	220	25260
2	4	Kannur	Chennai	350	25260
4	4	Palakkad	Chennai	130	25260
1	2	Chennai	Palakkad	130	25261
1	3	Chennai	Kannur	350	25261
1	4	Chennai	Mangaluru	481	25261
2	3	Palakkad	Kannur	220	25261
2	4	Palakkad	Mangaluru	351	25261
3	4	Kannur	Mangaluru	131	25261
1	2	Mangaluru	Subramanya	195	58450
1] 3	Mangaluru	Mysore	365	58450
1	4	Mangaluru	Bengaluru	504	58450
2] 3	Subramanya	Mysore	170	58450
2	4	Subramanya	Bengaluru	309	58450
3	4	Mysore	Bengaluru	139	58450
1	2	Bengaluru	Mysore	139	58451
1] 3	Bengaluru	Subramanya	309	58451
1	4	Bengaluru	Mangaluru	503	58451
2] 3	Mysore	Subramanya	170	58451
2	4	Mysore	Mangaluru	364	58451
3	4	Subramanya	Mangaluru	194	58451
1	2	Chennai	Sholingur	90	62620
1] 3	Chennai	Katpadi	129	62620
1	4	Chennai	Bangarpet	290	62620
1	5	Chennai	Bengaluru	361	62620
2] 3	Sholingur	Katpadi	39	62620
2	4	Sholingur	Bangarpet	200	62620
2	5	Sholingur	Chennai	271	62620
3	4	Katpadi	Bangarpet	161	62620
3	5	Katpadi	Chennai	232	62620
4	5	Bangarpet	Bengaluru	71	62620
1	2	Bengaluru	Bangarpet	71	62621
1] 3	Bengaluru	Katpadi	232	62621
1	4	Bengaluru	Sholigur	272	62621
1	5	Bengaluru	Chennai	362	62621
2] 3	Bangarpet	Katpadi	161	62621
2	4	Bangarpet	Sholigur	201	62621

2. Calculate and update age attribute in User Table.

UPDATE train_user SET age =
DATE_FORMAT(FROM_DAYS(DATEDIFF(now(),DOB)),'%
Y')+0;

ser id l	user type	firstname	lastname	age	l dob	pincode	street number
1261 Tra	user_cype		1astilalle	l age	uob	princode	street_number
ADM 001	ADMIN	Narendra	Modi	NULL	1989-04-14	600047	Old Jail Road
ADM 002	ADMIN	Droupadi	Murmu	NULL	1990-04-14	640012	High Street
ADM 003	ADMIN	Manmohan	Singh	NULL	1991-04-08	575003	Pumpwell Road
JSR 001	PSGR	Ajit	Ullal	NULL	1971-01-01	560001	10, Janpath
JSR 002	PSGR	Muhammed	Ali	NULL	2000-10-09	560003	10, Downing
JSR 003	PSGR	Sai Deepak	Reddy	NULL	1996-12-12	600001	14, Kailsh Marg
JSR 004	PSGR	Rudra	Agarwal	NULL	1996-12-13	600042	5, Lohia Garden
JSR 005	PSGR	Rahul	Khanna	NULL	1997-12-14	600067	1, Pink Street
JSR 006	PSGR	Nirmala	Seturaman	NULL	1998-12-15	560105	3, Blue Avenue
JSR 007	PSGR	Smriti	Irani	NULL	1999-12-16	575014	4, Banyan Avenie
JSR 008	PSGR	Ajit	Sethi	NULL	1966-04-14	575001	6, Poes Garden
JSR 009	PSGR	Arjun	Allu	NULL	1967-04-08	575020	7, Dhamaka street
JSR 010	PSGR	Samanta	Prabhu	NULL	1968-04-14	600042	8, Clone Colony
JSR 011	PSGR	Kiran	Bedi	NULL	1969-04-14	560003	56, Brigade Road
JSR 012	PSGR	Rahul	Gandhi	NULL	1970-04-08	475001	Mirza road
JSR 013	PSGR	Rashkit	Shetty	NULL	1971-04-14	560009	JC Road
JSR 014	PSGR	Rishi	Sunak	NULL	1972-04-14	600034	Anna Sali
JSR 015	PSGR	Vedavalli	Srinath	NULL	1973-04-14	560054	Church Street, Bangalore
JSR_016	PSGR	Subbu	Saravana	NULL	1974-04-14	600043	American Street
JSR_017	PSGR	Sheela	Dixit	NULL	1975-04-08	560048	Kasturba Road
JSR_018	PSGR	Margaret	Alva	NULL	1976-04-14	560008	New BEL Road
JSR_019	PSGR	Arun	Kumar	NULL	1977-04-14	600046	Mint Street
JSR_020	PSGR	Anshu	Bhardwaj	NULL	1978-04-14	575001	KSR Road
JSR_021	PSGR	Suma	Sampat	NULL	1979-04-08	560012	Old Airport Road, Bangalore
JSR_022	PSGR	Srihari	Udupa	NULL	1980-04-14	560015	Suranjan Das Road
JSR_023	PSGR	Satish	Kotian	NULL	1981-04-14	600044	T Nagar
JSR_024	PSGR	Shradha	Nayar	NULL	1982-04-08	560006	M G Road, Bangalore
JSR_025	PSGR	Manisha	Solanki	NULL	1983-04-08	575030	M G Road
JSR_026	PSGR	Bharti	Devgan	NULL	1984-04-14	560059	NAL Wind Tunnel Road
JSR 027	PSGR	Roopa	Ram	NULL	1985-04-14	575023	Bunder Road

```
ariaDB [cs634_rrs]> UPDATE train_user SET
uery OK, 33 rows affected (0.016 sec)
ows matched: 33 Changed: 33 Warnings: 0
                                                                                            SET age = DATE_FORMAT(FROM_DAYS(DATEDIFF(now(),DOB)),'%Y')+0
ariaDB [cs634_rrs]> select * from train_user;
 user_id | user_type | firstname | lastname
                                                                                                                                                              | pincode | street_number
                                                                                     Modi
                                                                                                                                   1989-04-14 |
                                                                                                                                                                                           Old Jail Road
                                                                                     Murmu
Singh
Ullal
                                                                                                                                                                  640012
575003
560001
 ADM_002
ADM_003
                        ADMIN
ADMIN
                                                     Droupadi
Manmohan
                                                                                                                                   1990-04-14
1991-04-08
                                                                                                                                                                                          High Street
Pumpwell Road
                                                                                                                       32
31
21
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23
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56
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54
53
52
51
49
48
47
46
45
44
                                                                                                                                                                                        Pumpwell Road
10, Janpath
10, Downing
14, Kailsh Marg
5, Lohia Garden
1, Pink Street
3, Blue Avenue
4, Banyan Avenie
6, Poes Garden
7, Dhamaka street
8, Clone Colony
56, Brigade Road
Mirza road
JC Road
Anna Sali
Church Street, Bangalore
American Street
                                                    Manmohan
Ajit
Muhammed
Sai Deepak
Rudra
Rahul
Nirmala
Smriti
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2000-10-09
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1996-12-13
1997-12-14
 USR_001
USR_002
USR_003
                        PSGR
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560001
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 USR_004
USR_005
                        PSGR
PSGR
                                                                                     Agarwal
Khanna
 USR_006
USR_007
                        PSGR
PSGR
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1999-12-16
                                                                                                                                                                  560105
575014
                                                                                     Irani
Sethi
Allu
                                                     Amriti
Ajit
Arjun
Samanta
Kiran
Rahul
Rashkit
 USR_008
USR_009
                        PSGR
PSGR
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1967-04-08
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575020
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Bedi
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USR_011
                        PSGR
PSGR
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1969-04-14
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560003
 USR_012
USR_013
USR_014
USR_015
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1971-04-14
1972-04-14
1973-04-14
                                                                                                                                                                 475001
560009
600034
560054
                        PSGR
PSGR
PSGR
                                                                                     Gandhi
Shetty
                                                      Rishi
                                                                                      Sunak
                                                     Rishi
Vedavalli
Subbu
Sheela
Margaret
Arun
Anshu
                                                                                      Srinath
                                                                                                                                                                                         Church Street, Bangalore
American Street
Kasturba Road
New BEL Road
Mint Street
KSR Road
Old Airport Road, Bangalore
Suranjan Das Road
                                                                                                                                   1974-04-14
1975-04-08
1976-04-14
                                                                                                                                                                  600043
560048
560008
                        PSGR
PSGR
PSGR
                                                                                     Saravana
Dixit
 USR_016
 USR_017
USR 018
                                                                                     Alva
Kumar
Bhardwaj
                                                                                                                                                                 600046
575001
560012
560015
                        PSGR
PSGR
                                                                                                                                  1977-04-14
1978-04-14
 USR_019
 USR 020
 USR_021
USR_022
USR_023
USR_024
                        PSGR
PSGR
                                                      Suma
Srihari
                                                                                     Sampat
Udupa
                                                                                                                                   1979-04-08
1980-04-14
                                                     Satish
Shradha
Manisha
Bharti
                                                                                                                                                                                          T Nagar
M G Road, Bangalore
M G Road
NAL Wind Tunnel Road
                        PSGR
PSGR
                                                                                                                                   1981-04-14
1982-04-08
                                                                                                                                                                  600044
560006
                                                                                      Nayar
 USR_025
USR_026
USR_027
USR_028
                                                                                                                                  1983-04-08
1984-04-14
1985-04-14
1986-04-08
                                                                                                                                                                  575030
560059
575023
560044
                        PSGR
PSGR
PSGR
PSGR
                                                                                     Solanki
Devgan
                                                                                                                                                                                          Bunder Road
Lavelle Road
Thiru V ka Salai
Bejai New Road
                                                      Roopa
Pallavi
                                                                                     Ram
Ram
                                                      Ravi
Virat
                                                                                                                                   1987-04-14
1988-04-14
 USR 029
                                                                                     Naik
                                                                                                                                                                  600045
    rows in set (0.001 sec)
```

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

select * from route_info where distance between 70 and 150;

MariaDB [cs634_rrs]> select * from	route_info;			
from_station_no	to_station_no	from_station_name	to_station_name	distance	train_no
1	2	Mangaluru	Kannur	131	25260
1	3	Mangaluru	Palakkad	351	25260
1	4	Mangaluru	Chennai	481	25260
2	3	Kannur	Palakkad	220	25260
2	4	Kannur	Chennai	350	25260
4	4	Palakkad	Chennai	130	25260
1	2	Chennai	Palakkad	130	25261
1	3	Chennai	Kannur	350	25261
1	4	Chennai	Mangaluru	481	25261
2	3	Palakkad	Kannur	220	25261
2	4	Palakkad	Mangaluru	351	25261
3	4	Kannur	Mangaluru	131	25261
1	2	Mangaluru	Subramanya	195	58450
1	3	Mangaluru	Mysore	365	58450
1	4	Mangaluru	Bengaluru	504	58450
2	3	Subramanya	Mysore	170	58450
2	4	Subramanya	Bengaluru	309	58450
3	4	Mysore	Bengaluru	139	58450
1	2	Bengaluru	Mysore	139	58451
1	3	Bengaluru	Subramanya	309	58451
1	4	Bengaluru	Mangaluru	503	58451
2	3	Mysore	Subramanya	170	58451
2	4	Mysore	Mangaluru	364	58451
3	4	Subramanya	Mangaluru	194	58451
1	2	Chennai	Sholingur	90	62620
1	3	Chennai	Katpadi	129	62620
1	4	Chennai	Bangarpet	290	62620
1	5	Chennai	Bengaluru	361	62620
2	3	Sholingur	Katpadi	39	62620
2	4	Sholingur	Bangarpet	200	62620
2	5	Sholingur	Chennai	271	62620
3	4	Katpadi	Bangarpet	161	62620
3	5	Katpadi	Chennai	232	62620
4	5	Bangarpet	Bengaluru	71	62620
1	2	Bengaluru	Bangarpet	71	62621
1	3	Bengaluru	Katpadi	232	62621
1	4	Bengaluru	Sholigur	272	62621
1	5	Bengaluru	Chennai	362	62621
2] 3	Bangarpet	Katpadi	161	62621
2	4	Bangarpet	Sholigur	201	62621

from_station_no	to_station_no	from_station_name	to_station_name	distance	train_no
1	2	Mangaluru	Kannur	131	25260
4	4	Palakkad	Chennai	130	25260
1	2	Chennai	Palakkad	130	25261
3	4	Kannur	Mangaluru	131	25261
3	4	Mysore	Bengaluru	139	58450
1	2	Bengaluru	Mysore	139	58451
1	2	Chennai	Sholingur	90	62620
1	3	Chennai	Katpadi	129	62620
4	5	Bangarpet	Bengaluru	71	62620
1	2	Bengaluru	Bangarpet	71	62621
3	5	Katpadi	Chennai	130	62621
4	5	Sholingur	Chennai	90	62621
rows in set (0.			·	+	+

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

select * from route_info where from_station_name =
'Chennai' and to_station_name = 'Sholingur';

```
MariaDB [cs634_rrs]> select * from route_info where from_station_name = 'Chennai' and to_station_name = 'Sholingur';

| from_station_no | to_station_no | from_station_name | to_station_name | distance | train_no |

| 1 | 2 | Chennai | Sholingur | 90 | 62620 |

| row in set (0.001 sec)

| MariaDB [cs634_rrs]>
```

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

select * from train where train_type not in ('Mail');

```
ariaDB [cs634_rrs]> select * from train;
train_no | train_name
                                                     | destination | availability
                            | train_type | source
   25260
           Chennai Mail
                              Mail
                                           Mangaluru |
                                                       Chennai
                                                                     Yes
   25261
           Managaluru Mail
                              Mail
                                           Chennai
                                                       Mangaluru
                                                                     Yes
           MAN-BEN Express
   58450
                              Fast
                                           Mangaluru |
                                                       Bengaluru
                                                                     yes
   58451
           BEN-MAN Express
                              Fast
                                           Bengaluru |
                                                       Mangaluru
                                                                     yes
           CHE-BEN Shatabdi
   62620
                              Superfast
                                           Chennai
                                                       Bengaluru
                                                                     No
           BEN-CHE Shatabdi
   62621
                              Superfast
                                           Bengaluru |
                                                      Chennai
                                                                     yes
rows in set (0.003 sec)
ariaDB [cs634_rrs]> select * from train where train_type not in ('Mail');
train_no | train_name
                            | train_type | source
                                                      destination | availability
   58450
           MAN-BEN Express
                                           Mangaluru |
                                                       Bengaluru
   58451
           BEN-MAN Express
                              Fast
                                           Bengaluru
                                                       Mangaluru
                                                                     yes
          CHE-BEN Shatabdi
                              Superfast
   62620
                                         Chennai
                                                       Bengaluru
                                                                     No
   62621 | BEN-CHE Shatabdi | Superfast | Bengaluru | Chennai
rows in set (0.001 sec)
ariaDB [cs634_rrs]>
```

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

select * from train where source = 'Bengaluru' and
destination = 'Chennai';

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

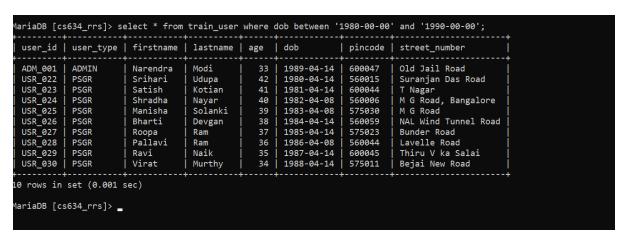
select * from ticket where departure = 'Chennai' and departure_time > 8;

nr	train_no	travel_date	departure	arrival	departure_time	arrival_time	passenger_id	train_type	compartment_type	compartment_no
NR001	62621	2022-08-07	Bengaluru	Chennai	16:00:00	20:30:00	ADM 001	Superfast	I Class	F01
NR002	62620	2022-08-14	Chennai	Bengaluru	08:00:00	12:25:00	ADM 001	Superfast	I Class	F02
PNRØØ3	25261	2022-08-01	Chennai	Mangaluru	18:00:00	07:30:00	ADM 003	Mail	III Class	GØ2
PNR004	25260	2022-08-15	Mangaluru	Chennai	19:15:00	08:00:00	ADM_003	Mail	II Class	S02
PNRØØ5	58451	2022-08-03	Bengaluru	Mangaluru	06:00:00	14:00:00	USR_002	Fast	III Class	G01
PNRØØ6	58450	2033-08-04	Mangaluru	Bengaluru	08:00:00	10:15:00	USR_002	Fast	II Class	SØ1
PNRØØ7	62621	2022-08-07	Bangarpet	Chennai	18:00:00	20:30:00	ADM_002	Superfast	II Class	SØ1
PNRØØ8	62620	2022-08-02	Chennai	Bangarpet	08:00:00	09:00:00	ADM_002	Superfast	I Class	F01
PNRØ10	25260	2022-08-19	Mangaluru	Kannur	19:15:00	23:15:00	USR_007	Mail	II Class	SØ1
PNRØ11	62621	2022-08-22	Katapadi	Chennai	19:00:00	20:30:00	USR_008	Superfast	I Class	F01
PNRØ12	58451	2022-08-11	Subramanya	Mangaluru	11:00:00	14:00:00	USR_009	Fast	I Class	F01
PNR014	25260	2022-08-17	Kannur	Palakkad	23:15:00	04:30:00	USR_010	Mail	II Class	S01
PNRØ15	25260	2022-08-05	Palakkad	Chennai	04:30:00	08:00:00	USR_012	Mail	II Class	SØ1

NR002 62620 2022-08-14 Chennai Bengaluru 08:00:00 12:25:00 ADM_001 Superfast I Class F02 NR003 25261 2022-08-01 Chennai Mangaluru 18:00:00 07:30:00 ADM_003 Mail III Class G02	onr	train_no	travel_date							compartment_type	
1.11100 0.020 2012 00 02 0.111111111 0.11111110 0.1111110 0.1111111111	PNR002 PNR003 PNR008	25261 62620	2022-08-01 2022-08-02	Chennai Chennai Chennai	Bengaluru Mangaluru Bangarpet	08:00:00 18:00:00 08:00:00	12:25:00 07:30:00 09:00:00	ADM_001 ADM_003 ADM_002	Superfast Mail Superfast	I Class III Class I Class	F02 G02 F01

8. Display the list of users who are born between 1980 to 1990.

select * from train_user where dob between '1980-00-00' and '1990-00-00';



9. Display the train users whose name starts with the letter 'S'.

select * from train_user where firstname like 'S%';



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

select * from compartment where
compartment_type ='I Class' and train_number =
62621;

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

Select transaction_no,pnr from payment_info where bank = 'UNION BANK';

Lab 4 - DML

TASK - 2

Name:	R Chaitanya Madhav
SRN:	PES1UG20CS634
Section:	K

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

```
C:\xampp\mysql\bin>mysql -u root
Welcome to the MariaDB monitor. Commands end with ; or \g. Your MariaDB connection id is 42
Server version: 10.4.24-MariaDB mariadb.org binary distribution
Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
MariaDB [(none)]> use cs634_rrs;
Database changed
MariaDB [cs634_rrs]> create user abs identified by "Chaitanya";
Query OK, 0 rows affected (0.015 sec)
MariaDB [cs634_rrs]> grant UPDATE,SELECT on fare to abs;
Query OK, 0 rows affected (0.013 sec)
MariaDB [cs634_rrs]> show grants;
Grants for root@localhost
 GRANT ALL PRIVILEGES ON *.* TO `root`@`localhost` WITH GRANT OPTION |
 GRANT PROXY ON ''@'%' TO 'root'@'localhost' WITH GRANT OPTION
2 rows in set (0.000 sec)
MariaDB [cs634_rrs]> show grants for abs;
 Grants for abs@%
 GRANT USAGE ON *.* TO `abs`@`%` IDENTIFIED BY PASSWORD '*4A571E3B875F37949419CF8572FC3B2FCDB81D0D'
 GRANT SELECT, UPDATE ON `cs634_rrs`.`fare` TO `abs`@`%`
2 rows in set (0.000 sec)
MariaDB [cs634_rrs]> _
```

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

```
train_type | compartment_type | fare_per_km
           I Class
           I Class
Mail
                                        2
Superfast | I Class
                                        3
Fast
           | II Class
                                        2
Mail
           II Class
Superfast |
            II Class
Fast
            III Class
                                        1
Mail
            III Class
                                        1
Superfast | III Class
rows in set (0.001 sec)
```

Since compartment access was not given to user, it raised an error.

```
ERROR 1142 (42000): SELECT command denied to user 'abs'@'localhost' for table 'compartment'
```

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

```
train_type
                | compartment_type | fare_per_km
                 I Class
Mail
                | I Class
                | I Class
Superfast
SuperSuperfast | I Class
Fast
                | II Class
Mail
                | II Class
                | II Class
Superfast
SuperSuperfast | II Class
                 III Class
Fast
Mail
                 III Class
                | III Class
Superfast
1 rows in set (0.009 sec)
```

Savepoint s2;

Query OK, 0 rows affected (0.000 sec)

Select * from fare;

train_type	compartment_type	fare_per_km
Fast	I Class	3
Mail	I Class	2
Superfast	I Class	3
SuperSuperfast	I Class	7 [
Fast	II Class	2
Mail	II Class	1 1
Superfast	II Class	2
SuperSuperfast	II Class	5
Fast	III Class	1
Mail	III Class	1 1
Superfast	III Class	1
SuperSuperfast	IV Class	5
+		
12 rows in set (0.	001 sec)	

Rollback to s2;

```
Query OK, 0 rows affected (0.000 sec)
```

Select *from fare;

	·	
train_type	compartment_type	fare_per_km
Fast	I Class	3
Mail	I Class	2
Superfast	I Class	3
SuperSuperfast	I Class	7
Fast	II Class	2
Mail	II Class	1
Superfast	II Class	2
SuperSuperfast	II Class	5
Fast	III Class	1
Mail	III Class	1
Superfast	III Class	1
l1 rows in set (0.	.009 sec)	