## **Project Report on DBMS**

# Pseudo Taxi Management System

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> Submitted To-Ms.Sugandhi



# DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

# THAPAR INSTITUTE OF ENGINEERING AND TECHNOLOGY, (DEEMED TO BE UNIVERSITY), PATIALA, PUNJAB,

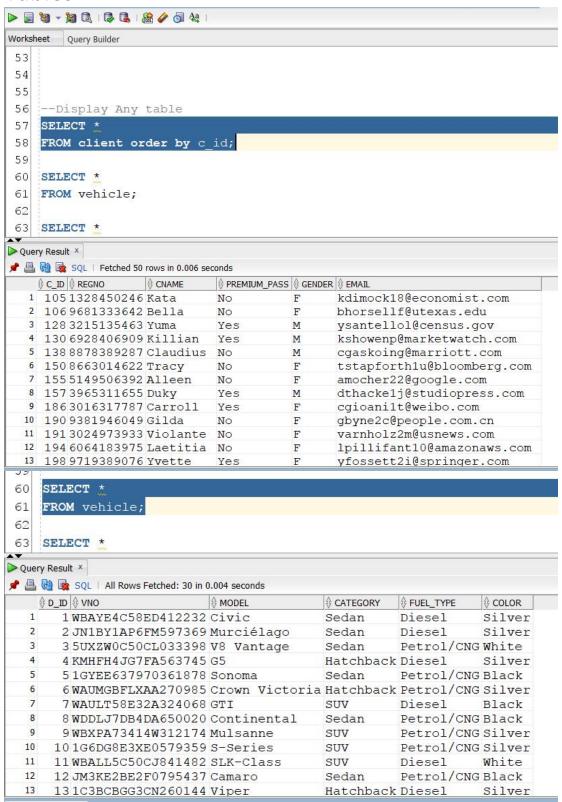
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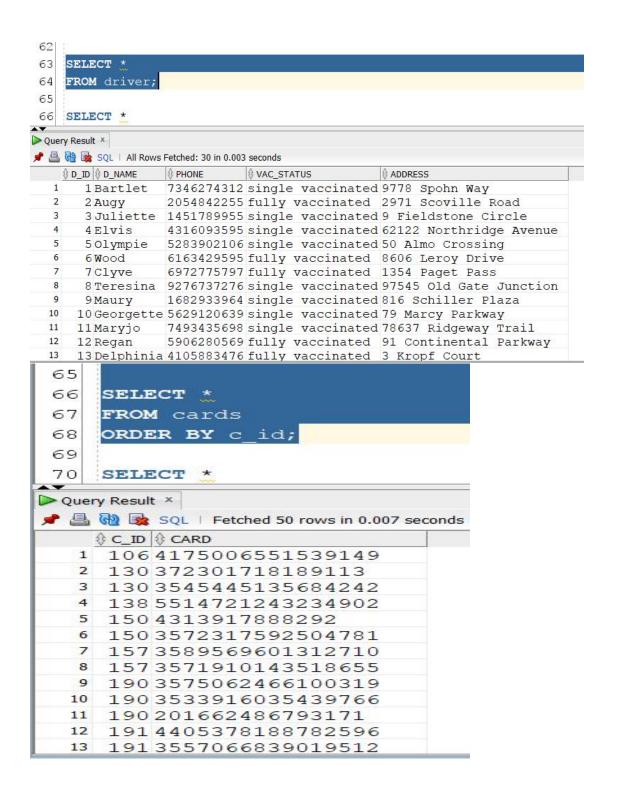
Jan-June 2022

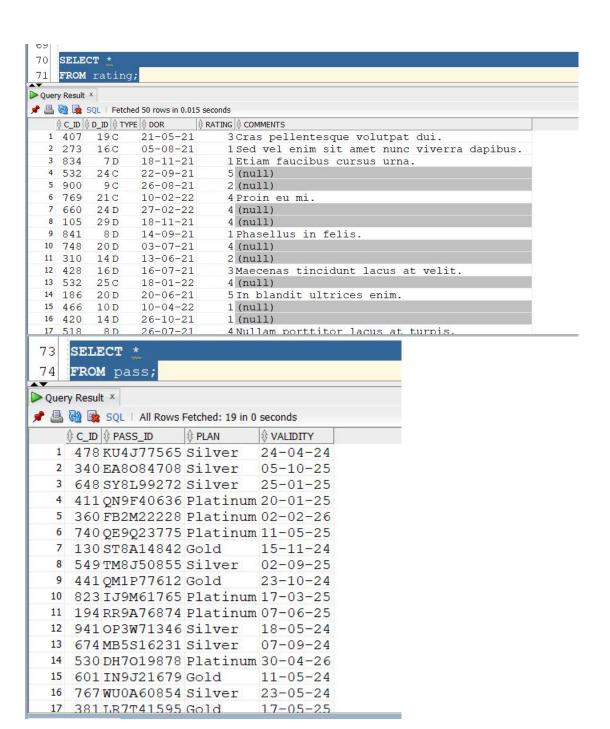
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### **Tables**







# Normalization

In Table Client , Credit Card Field is Multi Values Attribute and Requires Normalization, We used Normalization by Decomposition to make a new table cards To store multiple cards

## Normalization by Flattening

C_ID   REGNO   748 782218180	<b>⊕</b> CNAME	♦ PREMIUM_PASS	<b>♦</b> GENDER	∯ EMAIL	∯ CARD
748 78ZZI8I80	JI EINOTE	Yes		eseagroveze@goo.ne.jp	3569348449773993
662 405467772	28 Benita	No	F	bwhitemarsh2f@spotify.com	5602224281426715
529 527263371	16 Verile	Yes	F	vkitcher2h@weebly.com	3567708928253969
529 527263371	16 Verile	Yes	F	vkitcher2h@weebly.com	63049232432882595
529 527263371	16 Verile	Yes	F	vkitcher2h@weebly.com	3543776666843282
529 527263371	L6 Verile	Yes	F	vkitcher2h@weebly.com	3588458102842543
980 226263217	75 Maryann	Yes	F	mtout2k@sourceforge.net	490554999853707350
980226263217	75 Maryann	Yes	F	mtout2k@sourceforge.net	30171160868868
191 302497393	33 Violante	No	F	varnholz2m@usnews.com	3557066839019512
191 302497393	33 Violante	No	F	varnholz2m@usnews.com	4405378188782596

#### Normalization by Decomposition

IVOI	manzation by become
C_ID	CARD
106	4175006551539149
130	372301718189113
130	3545445135684242
138	5514721243234902
150	4313917888292
150	3572317592504781
157	3589569601312710
157	3571910143518655
190	3575062466100319
190	3533916035439766
190	201662486793171

1302010021007	221,1			
C_ID ∯ REGNO		♦ PREMIUM_PASS	<b>♦</b> GENDER	♦ EMAIL
105 1328450246	Kata	No	F	kdimock18@economist.com
106 9681333642	Bella	No	F	bhorsellf@utexas.edu
128 3215135463	Yuma	Yes	M	ysantellol@census.gov
130 6928406909	Killian	Yes	M	kshowenp@marketwatch.com
138 8878389287	Claudius	No	M	cgaskoing@marriott.com
1508663014622	Tracy	No	F	tstapforth1u@bloomberg.com
155 5149506392	Alleen	No	F	amocher22@google.com
157 3965311655	Duky	Yes	M	dthackelj@studiopress.com
1863016317787	Carroll	Yes	F	cgioani1t@weibo.com
190 9381946049	Gilda	No	F	gbyne2c@people.com.cn
191 3024973933	Violante	No	F	varnholz2m@usnews.com

### **PL SQL Code With Screenshots**

```
-- ***** Exception Handling *******
--Rate a Driver Program
DECLARE
rating_mt5 EXCEPTION;
rat NUMBER;
did NUMBER(2);
driv driver.d_name%TYPE;
BEGIN
did := &driver_id_of_driver;
--SELECT d_name INTO driv FROM driver;
SELECT d name
INTO driv
FROM driver
WHERE d_id = did;
rat := &rating;
IF rat > 5 OR rat < 1 THEN
 RAISE rating_mt5;
 END IF;
dbms_output.put_line('You have Rated '
           || driv
            || ' with '
           || rat
           || ' stars');
EXCEPTION
WHEN too_many_rows THEN
 dbms_output.put_line('TOO MANY ROWS');
WHEN no_data_found THEN
 dbms_output.put_line('NO DATA FOUND');
 WHEN rating_mt5 THEN
  dbms_output.put_line('Rating can only be between 1 and 5');
WHEN OTHERS THEN
  dbms_output.put_line('other errors');
END;
                                                                                 ×
                                                Enter Substitution Variable
                                          X
         Enter Substitution Variable
                                                   Enter value for rating:
            Enter value for driver_id_of_driver:
            25
                                                   7
                                                               OK
                                                                           Cancel
                        OK
                                    Cancel
               Dbms Output
               💠 🥢 🖥 🚇 | Buffer Size: 20000
               AK ×
               Rating can only be between 1 and 5
```

#### --\*\*\*\*\*Trigger\*\*\*\*\*

```
CREATE OR REPLACE TRIGGER cl_upper BEFORE
INSERT OR UPDATE OF cname ON client
FOR EACH ROW
BEGIN
:new.cname := upper(:new.cname);
END;
/
update client set cname='akshit';
select* from client;
```

	CA PR	SQL   Fetched 50	rows in 0 se	conds		
	∯ C_ID	REGNO		PREMIUM_PASS		<b>♦</b> EMAIL
1	518	4611725379	AKSHIT	No	M	eickovitz0@scribd.com
2	395	3669551214	AKSHIT	No	F	nsimonnet1@dailymotion.com
3	841	4738610255	AKSHIT	Yes	M	rlyosik2@hostgator.com
4	660	1976818351	AKSHIT	No	M	mshakle3@slideshare.net
5	514	7069971163	AKSHIT	Yes	F	rfuente4@ucla.edu
6	869	2779603397	AKSHIT	Yes	F	ksaltman5@topsy.com
7	504	3819753889	AKSHIT	Yes	M	troglieri6@spiegel.de
8	340	4284012932	AKSHIT	No	F	srainger7@bizjournals.com
9	708	7684696026	AKSHIT	Yes	M	nsandford8@yellowbook.com
10	648	6567494507	AKSHIT	Yes	M	gsephton9@arizona.edu
11	310	4107408926	AKSHIT	No	F	ngrinikhinova@patch.com
10	411	220507021	BUGUER	NT	-	

#### --\*\*\*Procedure \*\*\*

```
create or replace procedure end_prem(cid number) as
begin
delete from pass where c_id = cid;
end;
/
declare
d number;
begin
d:=478;
end_prem(d);
end;
/
select* from pass;
```

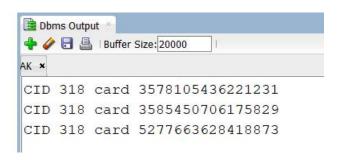
#### Before Running Above Code

	∜ C_ID	PASS_ID	<b>₽LAN</b>	<b>∜ VALIDITY</b>
1	478	KU4J77565	Silver	24-04-24
2	340	EA8084708	Silver	05-10-25
3	648	SY8L99272	Silver	25-01-25
4	411	QN9F40636	Platinum	20-01-25

#### After Running

Aitein	umme	5		
		♦ PASS_ID	<b>♦ PLAN</b>	
1	340	EA8084708	Silver	05-10-25
2	648	SY8L99272	Silver	25-01-25
3	411	QN9F40636	Platinum	20-01-25
4	360	FB2M22228	Platinum	02-02-26
5	740	QE9Q23775	Platinum	11-05-25

## -- \*\*\*\*\*\*\*Cursor Handling \*\*\*\*\*



## **Output Screenshots Other Queries**

```
--Display
                                                                         Drivers with their
                                                                                                                                                                           avg ratings
                select a.d id
                                                                                                                                                                            "Driver ID",
     79
                                                                                                                                                                           "Driver Name",
                                                       a.d name
                                                       round (AVG (b.rating), 2) AS "AVG Rating"
     80
                      FROM driver a,
     81
     82
                                             rating b
     83
                      WHERE a.d id = b.d id
                                                  AND b.type = 'D'
     84
                      GROUP BY a.d id,
     85
     86
                                                                 a.d name
                      ORDER BY a.d id;
     87
    88
 Query... ×
  🗸 📇 🙀 🔯 SQL | All Rows Fetched: 22 in 0.027 seconds

    ⊕ Driver ID    ⊕ Driver Name

                                                                                              AVG Rating
             1
                                           2 Augy
                                                                                                                              2
             2
                                            4 Elvis
                                                                                                                              3
             3
                                            5 Olympie
                                                                                                                             1
                                           7 Clyve
                                                                                                                    1.5
              5
                                           8 Teresina
                                                                                                               3.33
              6
                                           9 Maury
                                                                                                                              4
              7
                                       10 Georgette
                                                                                                                    1.5
              8
                                       11 Maryjo
                                                                                                               3.17
              9
                                       12 Regan
                                                                                                                             2
           10
                                       14 Susanna
                                                                                                               2.75
           11
                                       15 Yasmin
                                                                                                                              3
           12
                                                                                                                              4
                                       16 Aida
                                                                                                                              5
          13
                                       17 Donaugh
           14
                                       20 Annnora
                                                                                                               4.25
           15
                                                                                                                              5
                                       21 Lelia
                                                                                                                              3
                                       22 Pepe
           17
                                       23 Lvnnette
            --Display All Drivers With Vehicle Details
  Query Result × Query Result 1 ×
3 🔠 🍓 📚 SQL | All Rows Fetched: 30 in 0.01 seconds
                | D| D| D| AMR | PHONE | PAGE 
         1 WBAYE4C58ED412232 Civic
                                                                                                                                                                                                                                                                       Sedan
                                                                                                                                                                                                                                                                                              Diesel
                                                                                                                                                                                                                                                                                                                       Silver
                                                                                                                                                                                     2 JN1BY1AP6FM597369 Murciélago
3 5UXZW0C50CL033398 V8 Vantage
                                                                                                                                                                                                                                                                       Sedan
                                                                                                                                                                                                                                                                                                                       Silver
                                                                                                                                                                                                                                                                                              Petrol/CNG White
                                                                                                                                                                                                                                                                       Sedan
                                                                                                                                                                                      4 KMHFH4JG7FA563745 G5
                                                                                                                                                                                                                                                                       Hatchback Diesel
                                                                                                                                                                                                                                                                                                                      Silver
                                                                                                                                                                                      51GYEE637970361878 Sonoma
                                                                                                                                                                                                                                                                                              Petrol/CNG Black

        501ympie
        5283902106 single vaccinated 50 Almo Crossing

        6Wood
        6163429595 fully vaccinated 8066 Leroy Drive

        7Clyve
        6972775797 fully vaccinated 1354 Paget Pass

        8Teresina
        9276737276 single vaccinated 97545 Old Gate Junction

        9Maury
        1682933964 single vaccinated 816 Schiller Plaza

        10 Georgette 5629120639 single vaccinated 79 Marcy Parkway

        11 Maryjo
        7493435698 single vaccinated 78637 Ridgeway Trail

        12 Regan
        5906280569 fully vaccinated 91 Continental Parkway

        13 Delphinia 4105883476 fully vaccinated 3 Kropf Court

        14 Susanna
        1403951585 fully vaccinated 42310 Bartelt Court

        15 Yasmin 6664137993 fully vaccinated 3 Logan Plaza

        16 Aida 9442406360 fully vaccinated 2816 Maywood Junction

        17 Donaugh 5478428228 fully vaccinated 2 Fairfield Way

                                                                                                                                                                                                                                                                       Sedan
                                                                                                                                                                                                                                                                      Hatchback Petrol/CNG Silver
                                                                                                                                                                                     6 WAUMGBFLXAA270985 Crown Victoria
                                                                                                                                                                                     7 WAULT58E32A324068 GTI
8 WDDLJ7DB4DA650020 Continental
                                                                                                                                                                                                                                                                                             Diesel Black
Petrol/CNG Black
                                                                                                                                                                                                                                                                       Sedan
                                                                                                                                                                                   9 WBXPA73414W312174 Mulsanne
10 1G6DG8E3XE0579359 S-Series
                                                                                                                                                                                                                                                                       SIIV
                                                                                                                                                                                                                                                                                              Petrol/CNG Silver
                                                                                                                                                                                                                                                                                              Petrol/CNG Silver
                                                                                                                                                                                                                                                                       SUV
                                                                                                                                                                                   11 WBALL5C50CJ841482 SLK-Class
                                                                                                                                                                                                                                                                       SIIV
                                                                                                                                                                                                                                                                                              Diesel
                                                                                                                                                                                                                                                                                                                      White
                                                                                                                                                                                                                                                                                              Petrol/CNG Black
                                                                                                                                                                                   12 JM3KE2BE2F0795437 Camaro
                                                                                                                                                                                   131C3BCBGG3CN260144 Viper
                                                                                                                                                                                                                                                                       Hatchback Diesel
                                                                                                                                                                                                                                                                                                                      Silver
                                                                                                                                                                                   142HNYD18602H309482 Passport
                                                                                                                                                                                                                                                                       SUV
                                                                                                                                                                                                                                                                                              Petrol/CNG Black
                                                                                                                                                                                                                                                                       Hatchback Diesel
                                                                                                                                                                                   15 3VW507AT8FM728434 tC
                                                                                                                                                                                                                                                                                                                       White
                                                                                                                                                                                                                                                                                             Petrol/CNG Black
                                                                                                                                                                                   165GAKVAED6CJ335193Caravan
17WBAYF8C50ED545748Familia
                                                                                                                                                                                                                                                                       Sedan
                                                                                                                                                                                                                                                                                             Petrol/CNG Black
                                                                                                                                                                                                                                                                       SUV
```

#### **Full Code**

```
CREATE TABLE client (
         NUMBER PRIMARY KEY,
c_id
regno
         VARCHAR(20),
cname
          VARCHAR(20),
premium_pass VARCHAR(5),
gender
          CHAR,
email
         VARCHAR(30)
);
CREATE TABLE cards (
c id NUMBER
 REFERENCES client ( c id ),
card VARCHAR(20)
);
CREATE TABLE driver (
d_id
       NUMBER PRIMARY KEY,
d name VARCHAR(20),
phone VARCHAR(10),
vac_status VARCHAR(20),
address VARCHAR(30)
CREATE TABLE vehicle (
d id NUMBER PRIMARY KEY
 REFERENCES driver ( d_id ),
vno VARCHAR(25) UNIQUE,
model VARCHAR(20),
category VARCHAR(20),
fuel type VARCHAR(10),
color VARCHAR(20)
);
CREATE TABLE pass (
c_id NUMBER
 REFERENCES client ( c_id ),
pass_id VARCHAR(10) PRIMARY KEY,
plan VARCHAR(10),
validity DATE
);
CREATE TABLE rating (
c_id NUMBER
 REFERENCES client ( c id ),
d id NUMBER
 REFERENCES driver ( d_id ),
type CHAR,
dor
      DATE,
rating INT,
comments VARCHAR(50)
);
```

```
insert into client (c id, cname, regno, premium pass, gender, email) values (518, 'Elton',
'4611725379', 'No', 'M', 'eickovitz0@scribd.com');
insert into client (c_id, cname, regno, premium_pass, gender, email) values (395, 'Nedda',
'3669551214', 'No', 'F', 'nsimonnet1@dailymotion.com');
insert into client (c id, cname, regno, premium pass, gender, email) values (841, 'Roma',
'4738610255', 'Yes', 'M', 'rlyosik2@hostgator.com');
insert into client (c id, cname, regno, premium pass, gender, email) values (660, 'Meier',
'1976818351', 'No', 'M', 'mshakle3@slideshare.net');
insert into client (c_id, cname, regno, premium_pass, gender, email) values (514, 'Roanne',
'7069971163', 'Yes', 'F', 'rfuente4@ucla.edu');
insert into client (c_id, cname, regno, premium_pass, gender, email) values (869, 'Kerrin',
'2779603397', 'Yes', 'F', 'ksaltman5@topsy.com');
insert into client (c_id, cname, regno, premium_pass, gender, email) values (504, 'Tiebout',
'3819753889', 'Yes', 'M', 'troglieri6@spiegel.de');
insert into client (c id, cname, regno, premium pass, gender, email) values (340, 'Sharia',
'4284012932', 'No', 'F', 'srainger7@bizjournals.com'):
insert into client (c_id, cname, regno, premium_pass, gender, email) values (708, 'Niko', '7684696026',
'Yes', 'M', 'nsandford8@yellowbook.com');
insert into client (c_id, cname, regno, premium_pass, gender, email) values (648, 'Gasper',
'6567494507', 'Yes', 'M', 'gsephton9@arizona.edu');
insert into client (c id, cname, regno, premium pass, gender, email) values (310, 'Nannette',
'4107408926', 'No', 'F', 'ngrinikhinova@patch.com');
insert into client (c id, cname, regno, premium pass, gender, email) values (411, 'Jannel',
'2205879931', 'No', 'F', 'jtremoilleb@stumbleupon.com');
insert into client (c id, cname, regno, premium pass, gender, email) values (360, 'Kellia',
'9546271574', 'Yes', 'F', 'kgoric@apache.org');
insert into client (c id, cname, regno, premium pass, gender, email) values (740, 'Letisha',
'3703661736', 'No', 'F', 'lhoytd@soup.io');
insert into client (c_id, cname, regno, premium_pass, gender, email) values (273, 'Stevy',
'8133684552', 'No', 'M', \( \frac{\scosgrovee@cbsnews.com'}{}; \)
```

```
insert into cards (c id, card) values (360,
'4936828317835077');
insert into cards (c id, card) values (771,
'5405358479701809');
insert into cards (c id, card) values (530,
'6334033742445591');
insert into cards (c id, card) values (478,
'5602215920657538');
insert into cards (c id, card) values (441,
'633338943922426129');
insert into cards (c id, card) values (190,
'3533916035439766');
insert into cards (c id, card) values (557,
'56022518209266110');
insert into cards (c id, card) values (504,
'5569702618539509');
insert into cards (c id, card) values (514,
'3582968595835347');
insert into cards (c id, card) values (130,
'3545445135684242');
insert into cards (c id, card) values (138,
'5514721243234902');
```

```
insert into driver (d id, d name, phone, vac status, address)
values (1, 'Bartlet', '7346274312', 'single vaccinated', '9778
Spohn Way');
insert into driver (d id, d name, phone, vac status, address)
values (2, 'Augy', '2054842255', 'fully vaccinated', '2971
Scoville Road');
insert into driver (d id, d name, phone, vac status, address)
values (3, 'Juliette', '1451789955', 'single vaccinated', '9
Fieldstone Circle');
insert into driver (d id, d name, phone, vac status, address)
values (4, 'Elvis', '4316093595', 'single vaccinated', '62122
Northridge Avenue');
insert into driver (d id, d name, phone, vac status, address)
values (5, 'Olympie', '5283902106', 'single vaccinated', '50
Almo Crossing');
insert into pass (c id, pass id, plan, validity) values (478,
'KU4J77565', 'Silver', '24-Apr-2024');
insert into pass (c_id, pass_id, plan, validity) values (340,
'EA8084708', 'Silver', '05-Oct-2025');
insert into pass (c_id, pass_id, plan, validity) values (648,
'SY8L99272', 'Silver', '25-Jan-2025');
insert into pass (c id, pass id, plan, validity) values (411,
'QN9F40636', 'Platinum', '20-Jan-2025');
insert into pass (c_id, pass id, plan, validity) values (360,
'FB2M22228', 'Platinum', '02-Feb-2026');
insert into pass (c id, pass id, plan, validity) values (740,
'QE9Q23775', 'Platinum', '11-May-2025');
insert into pass (c id, pass id, plan, validity) values (130,
'ST8A14842', 'Gold', '15-Nov-2024');
insert into pass (c_id, pass_id, plan, validity) values (549,
'TM8J50855', 'Silver', '02-Sep-2025');
insert into pass (c id, pass id, plan, validity) values (441,
'QM1P77612', 'Gold', '23-Oct-2024');
insert into pass (c_id, pass_id, plan, validity) values (823,
'IJ9M61765', 'Platinum', '17-Mar-2025');
insert into pass (c id, pass id, plan, validity) values (194,
insert into rating (c id, d id, type, dor, rating, comments)
values (407, 19, 'C', '21-May-2021', 3, 'Cras pellentesque
volutpat dui.');
insert into rating (c id, d id, type, dor, rating, comments)
values (273, 16, 'C', '05-Aug-2021', 1, 'Sed vel enim sit amet
nunc viverra dapibus.');
insert into rating (c id, d id, type, dor, rating, comments)
values (834, 7, 'D', '18-Nov-2021', 1, 'Etiam faucibus cursus
urna.');
insert into rating (c_id, d_id, type, dor, rating, comments)
values (532, 24, 'C', '22-Sep-2021', 5, null);
insert into rating (c id, d id, type, dor, rating, comments)
values (900, 9, 'C', '26-Aug-2021', 2, null);
```

```
insert into rating (c_id, d_id, type, dor, rating, comments)
values (769, 21, 'C', '10-Feb-2022', 4, 'Proin eu mi.');
insert into rating (c id, d id, type, dor, rating, comments)
values (660, 24, 'D', '27-Feb-2022', 4, null);
insert into rating (c id, d id, type, dor, rating, comments)
values (105, 29, 'D', '18-Nov-2021', 4, null);
insert into rating (c id, d id, type, dor, rating, comments)
values (841, 8, 'D', '14-Sep-2021', 1, 'Phasellus in felis.');
insert into rating (c_id, d_id, type, dor, rating, comments)
values (748, 20, 'D', '03-Jul-2021', 4, null);
insert into vehicle (d id, vno, model, category, fuel type,
color) values (1, 'WBAYE4C58ED412232', 'Civic', 'Sedan',
'Diesel', 'Silver');
insert into vehicle (d_id, vno, model, category, fuel_type,
color) values (2, 'JN1BY1AP6FM597369', 'Murciélago', 'Sedan',
'Diesel', 'Silver');
insert into vehicle (d id, vno, model, category, fuel_type,
color) values (3, '5UXZW0C50CL033398', 'V8 Vantage', 'Sedan',
'Petrol/CNG', 'White');
insert into vehicle (d id, vno, model, category, fuel type,
color) values (4, 'KMHFH4JG7FA563745', 'G5', 'Hatchback',
'Diesel', 'Silver');
insert into vehicle (d id, vno, model, category, fuel type,
color) values (5, '1GYEE637970361878', 'Sonoma', 'Sedan',
'Petrol/CNG', 'Black');
--Display Any table
SELECT *
FROM client order by c id;
SELECT *
FROM vehicle;
SELECT*
FROM driver;
SELECT *
FROM cards
ORDER BY c id;
SELECT*
FROM rating;
SELECT *
FROM pass;
--Display Drivers with their avg ratings
SELECT a.d id
              "Driver ID",
```

"Driver Name",

a.d name

```
round(AVG(b.rating), 2) AS "AVG Rating"
FROM driver a,
  rating b
WHERE a.d id = b.d id
   AND b.type = 'D'
GROUP BY a.d_id,
    a.d name
ORDER BY a.d_id;
--Display All Drivers With Vehicle Details
SELECT a.*,
   b.*
FROM driver a,
  vehicle b
WHERE a.d_id = b.d_id;
-- ***** Exception Handling ******
--Rate a Driver Program
DECLARE
rating_mt5 EXCEPTION;
rat NUMBER;
did NUMBER(2);
driv driver.d_name%TYPE;
did := &driver_id_of_driver;
--SELECT d_name INTO driv FROM driver;
SELECT d_name
INTO driv
FROM driver
WHERE d_id = did;
rat := &rating;
IF rat > 5 OR rat < 1 THEN
 RAISE rating_mt5;
END IF;
dbms_output.put_line('You have Rated '
           || driv
           || ' with '
           || rat
           || ' stars');
EXCEPTION
WHEN too_many_rows THEN
 dbms_output.put_line('TOO MANY ROWS');
WHEN no_data_found THEN
 dbms_output_line('NO DATA FOUND');
WHEN rating mt5 THEN
 dbms_output.put_line('Rating can only be between 1 and 5');
WHEN OTHERS THEN
  dbms_output.put_line('other errors');
END;
-- *******Cursor Handling *****
```

```
DECLARE
 CURSOR c1 IS
 SELECT *
 FROM cards
 WHERE c_id = 318;
BEGIN
 FOR rec IN c1 LOOP
 dbms_output.put_line('CID'
             || rec.c_id
             || ' card '
             || rec.card);
 END LOOP;
END;
--*****Trigger*****
CREATE OR REPLACE TRIGGER cl_upper BEFORE
 INSERT OR UPDATE OF cname ON client
 FOR EACH ROW
BEGIN
 :new.cname := upper(:new.cname);
END;
update client set cname='akshit';
select* from client;
--***Procedure ***
create or replace procedure end_prem(cid number) as
delete from pass where c_id = cid;
end;
declare
d number;
begin
d:=478;
end_prem(d);
end;
select* from pass;
```