

DDL AND DML COMMANDS

“BUS INFORMATION”

CREATION OF A TABLE

QUERY:-

```
CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM  
INT(6));  
SELECT *FROM BUS;
```

```
1 CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM INT(6));  
2 SELECT *FROM BUS;
```

Output

[Execution complete with exit code 0]

INSERTING VALUES

QUERY:-

```
CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM  
VARCHAR(6));  
INSERT INTO BUS VALUES(1,'DK1',25,'TN01');  
INSERT INTO BUS VALUES(2,'DK2',45,'TN03');  
INSERT INTO BUS VALUES(3,'DK3',25,'TN05');  
INSERT INTO BUS VALUES(4,'DK4',30,'TN07');  
INSERT INTO BUS VALUES(5,'DK5',35,'TN09');  
SELECT *FROM BUS;
```

```
1 CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM VARCHAR(6));  
2 INSERT INTO BUS VALUES(1,'DK1',25,'TN01');  
3 INSERT INTO BUS VALUES(2,'DK2',45,'TN03');  
4 INSERT INTO BUS VALUES(3,'DK3',25,'TN05');  
5 INSERT INTO BUS VALUES(4,'DK4',30,'TN07');  
6 INSERT INTO BUS VALUES(5,'DK5',35,'TN09');  
7 SELECT *FROM BUS;  
8 |
```

Output

1|DK1|25|TN01
2|DK2|45|TN03
3|DK3|25|TN05
4|DK4|30|TN07
5|DK5|35|TN09

[Execution complete with exit code 0]

SELECT DISTINCT:-

QUERY:-

```
CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM  
VARCHAR(6));  
INSERT INTO BUS VALUES(1,'DK1',25,'TN01');  
INSERT INTO BUS VALUES(2,'DK2',45,'TN03');  
INSERT INTO BUS VALUES(3,'DK3',25,'TN05');  
INSERT INTO BUS VALUES(4,'DK4',30,'TN07');  
INSERT INTO BUS VALUES(5,'DK5',35,'TN09');  
SELECT DISTINCT CAPACITY FROM BUS;
```

SQL ▾

```

1 CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM VARCHAR(6));
2 INSERT INTO BUS VALUES(1,'DK1',25,'TN01');
3 INSERT INTO BUS VALUES(2,'DK2',45,'TN03');
4 INSERT INTO BUS VALUES(3,'DK3',25,'TN05');
5 INSERT INTO BUS VALUES(4,'DK4',30,'TN07');
6 INSERT INTO BUS VALUES(5,'DK5',35,'TN09');
7 SELECT DISTINCT CAPACITY FROM BUS;
8

```

Run Save

Output

```

25
45
30
35

```

[Execution complete with exit code 0]

ALTER TABLE:-

QUERY:-

```

CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM
VARCHAR(6));
INSERT INTO BUS VALUES(1,'DK1',25,'TN01');
INSERT INTO BUS VALUES(2,'DK2',45,'TN03');
INSERT INTO BUS VALUES(3,'DK3',25,'TN05');
INSERT INTO BUS VALUES(4,'DK4',30,'TN07');
INSERT INTO BUS VALUES(5,'DK5',35,'TN09');
ALTER TABLE BUS ADD BUS_TYPE VARCHAR(10);
SELECT*FROM BUS;

```

SQL ▾

```

1 CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM VARCHAR(6));
2 INSERT INTO BUS VALUES(1,'DK1',25,'TN01');
3 INSERT INTO BUS VALUES(2,'DK2',45,'TN03');
4 INSERT INTO BUS VALUES(3,'DK3',25,'TN05');
5 INSERT INTO BUS VALUES(4,'DK4',30,'TN07');
6 INSERT INTO BUS VALUES(5,'DK5',35,'TN09');
7 ALTER TABLE BUS ADD BUS_TYPE VARCHAR(10);
8 SELECT*FROM BUS;
9

```

Run Save

Output

```

1|DK1|25|TN01|
2|DK2|45|TN03|
3|DK3|25|TN05|
4|DK4|30|TN07|
5|DK5|35|TN09|

```

[Execution complete with exit code 0]

UPDATE:-

QUERY:-

```

CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM
VARCHAR(6));
INSERT INTO BUS VALUES(1,'DK1',25,'TN01');
INSERT INTO BUS VALUES(2,'DK2',45,'TN03');
INSERT INTO BUS VALUES(3,'DK3',25,'TN05');
INSERT INTO BUS VALUES(4,'DK4',30,'TN07');
INSERT INTO BUS VALUES(5,'DK5',35,'TN09');
ALTER TABLE BUS ADD BUS_TYPE VARCHAR(10);
UPDATE BUS SET PLATE_NUM='TN10' WHERE BUS_ID=5;
SELECT * FROM BUS;

```

```

1 CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM VARCHAR(6));
2 INSERT INTO BUS VALUES(1,'DK1',25,'TN01');
3 INSERT INTO BUS VALUES(2,'DK2',45,'TN03');
4 INSERT INTO BUS VALUES(3,'DK3',25,'TN05');
5 INSERT INTO BUS VALUES(4,'DK4',30,'TN07');
6 INSERT INTO BUS VALUES(5,'DK5',35,'TN09');
7 ALTER TABLE BUS ADD BUS_TYPE VARCHAR(10);
8 UPDATE BUS SET PLATE_NUM='TN10' WHERE BUS_ID=5;
9 SELECT * FROM BUS;
10
11 |

```

Output

```

1|DK1|25|TN01|
2|DK2|45|TN03|
3|DK3|25|TN05|
4|DK4|30|TN07|
5|DK5|35|TN10|

```

[Execution complete with exit code 0]

WHERE:-

QUERY:-

```

CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM
VARCHAR(6));
INSERT INTO BUS VALUES(1,'DK1',25,'TN01');
INSERT INTO BUS VALUES(2,'DK2',45,'TN03');
INSERT INTO BUS VALUES(3,'DK3',25,'TN05');
INSERT INTO BUS VALUES(4,'DK4',30,'TN07');
INSERT INTO BUS VALUES(5,'DK5',35,'TN09');
ALTER TABLE BUS ADD BUS_TYPE VARCHAR(10);
UPDATE BUS SET PLATE_NUM='TN10' WHERE BUS_ID=5;
SELECT BUS_NAME FROM BUS WHERE CAPACITY=25;

```

SQL Run Save

```

1 CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM VARCHAR(6));
2 INSERT INTO BUS VALUES(1,'DK1',25,'TN01');
3 INSERT INTO BUS VALUES(2,'DK2',45,'TN03');
4 INSERT INTO BUS VALUES(3,'DK3',25,'TN05');
5 INSERT INTO BUS VALUES(4,'DK4',30,'TN07');
6 INSERT INTO BUS VALUES(5,'DK5',35,'TN09');
7 ALTER TABLE BUS ADD BUS_TYPE VARCHAR(10);
8 UPDATE BUS SET PLATE_NUM='TN10' WHERE BUS_ID=5;
9 SELECT BUS_NAME FROM BUS WHERE CAPACITY=25;
10

```

Output

```

DK1
DK3

```

[Execution complete with exit code 0]

DELETE:-

QUERY:-

```

CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM
VARCHAR(6));
INSERT INTO BUS VALUES(1,'DK1',25,'TN01');
INSERT INTO BUS VALUES(2,'DK2',45,'TN03');
INSERT INTO BUS VALUES(3,'DK3',25,'TN05');
INSERT INTO BUS VALUES(4,'DK4',30,'TN07');
INSERT INTO BUS VALUES(5,'DK5',35,'TN09');
ALTER TABLE BUS ADD BUS_TYPE VARCHAR(10);
UPDATE BUS SET PLATE_NUM='TN10' WHERE BUS_ID=5;
DELETE FROM BUS WHERE BUS_ID=5;
SELECT * FROM BUS;

```

```

1 CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM VARCHAR(6));
2 INSERT INTO BUS VALUES(1,'DK1',25,'TN01');
3 INSERT INTO BUS VALUES(2,'DK2',45,'TN03');
4 INSERT INTO BUS VALUES(3,'DK3',25,'TN05');
5 INSERT INTO BUS VALUES(4,'DK4',30,'TN07');
6 INSERT INTO BUS VALUES(5,'DK5',35,'TN09');
7 ALTER TABLE BUS ADD BUS_TYPE VARCHAR(10);
8 UPDATE BUS SET PLATE_NUM='TN10' WHERE BUS_ID=5;
9 DELETE FROM BUS WHERE BUS_ID=5;
10 SELECT * FROM BUS;
11

```

Output

```

1|DK1|25|TN01|
2|DK2|45|TN03|
3|DK3|25|TN05|
4|DK4|30|TN07|

```

[Execution complete with exit code 0]

“CUSTOMER INFORMATION”

CREATION OF TABLE

QUERY:-

```

CREATE TABLE CUSTOMER_INFO(CUST_ID INT(6),CUST_NAME VARCHAR(20),AGE
INT(2),PH_NUM INT(14));
INSERT INTO CUSTOMER_INFO VALUES(01,"KARPAGA",20,9150236217);
INSERT INTO CUSTOMER_INFO VALUES(02,"DHANA",19,8838261498);
INSERT INTO CUSTOMER_INFO VALUES(03,"PAVI",19,7904461064);
INSERT INTO CUSTOMER_INFO VALUES(04,"ASIF",20,9176811922);
INSERT INTO CUSTOMER_INFO VALUES(05,"LAKSHMI",20,9840702912);
SELECT * FROM CUSTOMER_INFO;

```

```

1 CREATE TABLE CUSTOMER_INFO(CUST_ID INT(6),CUST_NAME VARCHAR(20),AGE INT(2),PH_NUM INT(14));
2 INSERT INTO CUSTOMER_INFO VALUES(01,"KARPAGA",20,9150236217);
3 INSERT INTO CUSTOMER_INFO VALUES(02,"DHANA",19,8838261498);
4 INSERT INTO CUSTOMER_INFO VALUES(03,"PAVI",19,7904461064);
5 INSERT INTO CUSTOMER_INFO VALUES(04,"ASIF",20,9176811922);
6 INSERT INTO CUSTOMER_INFO VALUES(05,"LAKSHMI",20,9840702912);
7 SELECT * FROM CUSTOMER_INFO;
8
9

```

Output

```

1|KARPAGA|20|9150236217|
2|DHANA|19|8838261498|
3|PAVI|19|7904461064|
4|ASIF|20|9176811922|
5|LAKSHMI|20|9840702912|

```

[Execution complete with exit code 0]

SELECT DISTINCT:-

QUERY:

```

CREATE TABLE CUSTOMER_INFO(CUST_ID INT(6),CUST_NAME VARCHAR(20),AGE
INT(2),PH_NUM INT(14));
INSERT INTO CUSTOMER_INFO VALUES(01,"KARPAGA",20,9150236217);
INSERT INTO CUSTOMER_INFO VALUES(02,"DHANA",19,8838261498);
INSERT INTO CUSTOMER_INFO VALUES(03,"PAVI",19,7904461064);
INSERT INTO CUSTOMER_INFO VALUES(04,"ASIF",20,9176811922);
INSERT INTO CUSTOMER_INFO VALUES(05,"LAKSHMI",20,9840702912);
SELECT DISTINCT AGE FROM CUSTOMER_INFO;

```

Add tags (upto 10)

SQL ▾

```

1 CREATE TABLE CUSTOMER_INFO(CUST_ID INT(6),CUST_NAME VARCHAR(20),AGE INT(2),PH_NUM INT(14));
2 INSERT INTO CUSTOMER_INFO VALUES(01,"KARPAGA",20,9150236217);
3 INSERT INTO CUSTOMER_INFO VALUES(02,"DHANA",19,8838261498);
4 INSERT INTO CUSTOMER_INFO VALUES(03,"PAVI",19,7904461064);
5 INSERT INTO CUSTOMER_INFO VALUES(04,"ASIF",20,9176811922);
6 INSERT INTO CUSTOMER_INFO VALUES(05,"LAKSHMI",20,9840702912);
7 SELECT DISTINCT AGE FROM CUSTOMER_INFO;
8
9
10

```

Run Save Output

```

20
19
[Execution complete with exit code 0]

```

ALTER:-

QUERY:-

```

CREATE TABLE CUSTOMER_INFO(CUST_ID INT(6),CUST_NAME VARCHAR(20),AGE INT(2),PH_NUM INT(14));
INSERT INTO CUSTOMER_INFO VALUES(01,"KARPAGA",20,9150236217);
INSERT INTO CUSTOMER_INFO VALUES(02,"DHANA",19,8838261498);
INSERT INTO CUSTOMER_INFO VALUES(03,"PAVI",19,7904461064);
INSERT INTO CUSTOMER_INFO VALUES(04,"ASIF",20,9176811922);
INSERT INTO CUSTOMER_INFO VALUES(05,"LAKSHMI",20,9840702912);
ALTER TABLE CUSTOMER_INFO ADD EMAIL_ID VARCHAR(255);
SELECT * FROM CUSTOMER_INFO;

```

SQL ▾

```

1 CREATE TABLE CUSTOMER_INFO(CUST_ID INT(6),CUST_NAME VARCHAR(20),AGE INT(2),PH_NUM INT(14));
2 INSERT INTO CUSTOMER_INFO VALUES(01,"KARPAGA",20,9150236217);
3 INSERT INTO CUSTOMER_INFO VALUES(02,"DHANA",19,8838261498);
4 INSERT INTO CUSTOMER_INFO VALUES(03,"PAVI",19,7904461064);
5 INSERT INTO CUSTOMER_INFO VALUES(04,"ASIF",20,9176811922);
6 INSERT INTO CUSTOMER_INFO VALUES(05,"LAKSHMI",20,9840702912);
7 ALTER TABLE CUSTOMER_INFO ADD EMAIL_ID VARCHAR(255);
8
9 SELECT * FROM CUSTOMER_INFO;
10
11
12

```

Run Save Output

```

1|KARPAGA|20|9150236217|
2|DHANA|19|8838261498|
3|PAVI|19|7904461064|
4|ASIF|20|9176811922|
5|LAKSHMI|20|9840702912|
[Execution complete with exit code 0]

```

UPDATE:-

QUERY:-

```

CREATE TABLE CUSTOMER_INFO(CUST_ID INT(6),CUST_NAME VARCHAR(20),AGE INT(2),PH_NUM INT(14));
INSERT INTO CUSTOMER_INFO VALUES(01,"KARPAGA",20,9150236217);
INSERT INTO CUSTOMER_INFO VALUES(02,"DHANA",19,8838261498);
INSERT INTO CUSTOMER_INFO VALUES(03,"PAVI",19,7904461064);
INSERT INTO CUSTOMER_INFO VALUES(04,"ASIF",20,9176811922);
INSERT INTO CUSTOMER_INFO VALUES(05,"LAKSHMI",20,9840702912);
ALTER TABLE CUSTOMER_INFO ADD EMAIL_ID VARCHAR(255);
UPDATE CUSTOMER_INFO SET CUST_NAME='KAVITHA' WHERE CUST_ID=5;
SELECT * FROM CUSTOMER_INFO;

```

SQL ▾

```

1 CREATE TABLE CUSTOMER_INFO(CUST_ID INT(6),CUST_NAME VARCHAR(20),AGE INT(2),PH_NUM INT(14));
2 INSERT INTO CUSTOMER_INFO VALUES(01,"KARPAGA",20,9150236217);
3 INSERT INTO CUSTOMER_INFO VALUES(02,"DHANA",19,8838261498);
4 INSERT INTO CUSTOMER_INFO VALUES(03,"PAVI",19,7904461064);
5 INSERT INTO CUSTOMER_INFO VALUES(04,"ASIF",20,9176811922);
6 INSERT INTO CUSTOMER_INFO VALUES(05,"LAKSHMI",20,9840702912);
7 ALTER TABLE CUSTOMER_INFO ADD EMAIL_ID VARCHAR(255);
8 UPDATE CUSTOMER_INFO SET CUST_NAME='KAVITHA' WHERE CUST_ID=5;
9
10 SELECT * FROM CUSTOMER_INFO;
11
12
13

```

Run Save Output

```

1|KARPAGA|20|9150236217|
2|DHANA|19|8838261498|
3|PAVI|19|7904461064|
4|ASIF|20|9176811922|
5|KAVITHA|20|9840702912|
[Execution complete with exit code 0]

```

WHERE CLAUSE:-

QUERY:

```
CREATE TABLE CUSTOMER_INFO(CUST_ID INT(6),CUST_NAME VARCHAR(20),AGE  
INT(2),PH_NUM INT(14));  
INSERT INTO CUSTOMER_INFO VALUES(01,"KARPAGA",20,9150236217);  
INSERT INTO CUSTOMER_INFO VALUES(02,"DHANA",19,8838261498);  
INSERT INTO CUSTOMER_INFO VALUES(03,"PAVI",19,7904461064);  
INSERT INTO CUSTOMER_INFO VALUES(04,"ASIF",20,9176811922);  
INSERT INTO CUSTOMER_INFO VALUES(05,"LAKSHMI",20,9840702912);  
ALTER TABLE CUSTOMER_INFO ADD EMAIL_ID VARCHAR(255);  
UPDATE CUSTOMER_INFO SET CUST_NAME='KAVITHA' WHERE CUST_ID=5;  
UPDATE CUSTOMER_INFO SET PH_NUM=9952097196 WHERE CUST_ID=5;  
SELECT * FROM CUSTOMER_INFO;
```

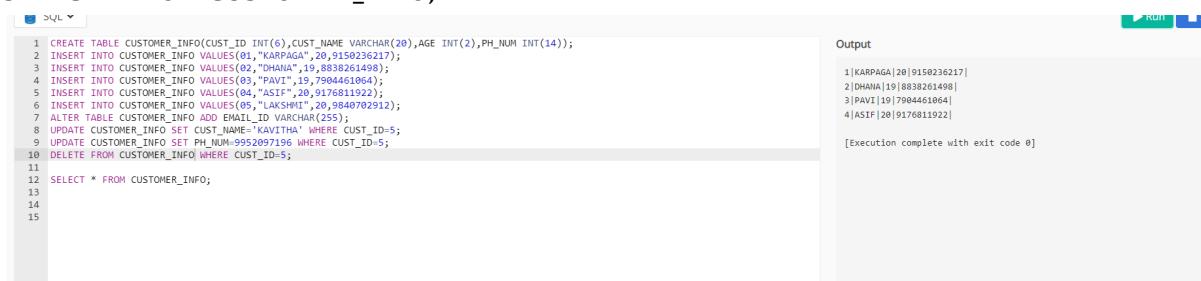


```
SQL ▾ Run Save  
1 CREATE TABLE CUSTOMER_INFO(CUST_ID INT(6),CUST_NAME VARCHAR(20),AGE INT(2),PH_NUM INT(14));  
2 INSERT INTO CUSTOMER_INFO VALUES(01,"KARPAGA",20,9150236217);  
3 INSERT INTO CUSTOMER_INFO VALUES(02,"DHANA",19,8838261498);  
4 INSERT INTO CUSTOMER_INFO VALUES(03,"PAVI",19,7904461064);  
5 INSERT INTO CUSTOMER_INFO VALUES(04,"ASIF",20,9176811922);  
6 INSERT INTO CUSTOMER_INFO VALUES(05,"LAKSHMI",20,9840702912);  
7 ALTER TABLE CUSTOMER_INFO ADD EMAIL_ID VARCHAR(255);  
8 UPDATE CUSTOMER_INFO SET CUST_NAME='KAVITHA' WHERE CUST_ID=5;  
9 UPDATE CUSTOMER_INFO SET PH_NUM=9952097196 WHERE CUST_ID=5;  
10  
11  
12  
13  
14  
15  
Output  
1|KARPAGA|20|9150236217|  
2|DHANA|19|8838261498|  
3|PAVI|19|7904461064|  
4|ASIF|20|9176811922|  
5|KAVITHA|20|9952097196|  
[Execution complete with exit code 0]
```

DELETE:-

QUERY:

```
CREATE TABLE CUSTOMER_INFO(CUST_ID INT(6),CUST_NAME VARCHAR(20),AGE  
INT(2),PH_NUM INT(14));  
INSERT INTO CUSTOMER_INFO VALUES(01,"KARPAGA",20,9150236217);  
INSERT INTO CUSTOMER_INFO VALUES(02,"DHANA",19,8838261498);  
INSERT INTO CUSTOMER_INFO VALUES(03,"PAVI",19,7904461064);  
INSERT INTO CUSTOMER_INFO VALUES(04,"ASIF",20,9176811922);  
INSERT INTO CUSTOMER_INFO VALUES(05,"LAKSHMI",20,9840702912);  
ALTER TABLE CUSTOMER_INFO ADD EMAIL_ID VARCHAR(255);  
UPDATE CUSTOMER_INFO SET CUST_NAME='KAVITHA' WHERE CUST_ID=5;  
UPDATE CUSTOMER_INFO SET PH_NUM=9952097196 WHERE CUST_ID=5;  
DELETE FROM CUSTOMER_INFO WHERE CUST_ID=5;  
SELECT * FROM CUSTOMER_INFO;
```



```
SQL ▾ Run Save  
1 CREATE TABLE CUSTOMER_INFO(CUST_ID INT(6),CUST_NAME VARCHAR(20),AGE INT(2),PH_NUM INT(14));  
2 INSERT INTO CUSTOMER_INFO VALUES(01,"KARPAGA",20,9150236217);  
3 INSERT INTO CUSTOMER_INFO VALUES(02,"DHANA",19,8838261498);  
4 INSERT INTO CUSTOMER_INFO VALUES(03,"PAVI",19,7904461064);  
5 INSERT INTO CUSTOMER_INFO VALUES(04,"ASIF",20,9176811922);  
6 INSERT INTO CUSTOMER_INFO VALUES(05,"LAKSHMI",20,9840702912);  
7 ALTER TABLE CUSTOMER_INFO ADD EMAIL_ID VARCHAR(255);  
8 UPDATE CUSTOMER_INFO SET CUST_NAME='KAVITHA' WHERE CUST_ID=5;  
9 UPDATE CUSTOMER_INFO SET PH_NUM=9952097196 WHERE CUST_ID=5;  
10  
11  
12  
13  
14  
15  
Output  
1|KARPAGA|20|9150236217|  
2|DHANA|19|8838261498|  
3|PAVI|19|7904461064|  
4|ASIF|20|9176811922|  
[Execution complete with exit code 0]
```

"DRIVER INFORMATION:-"

CREATION OF TABLE

QUERY:-

```
CREATE TABLE DRIVER_INFO(DRIVER_ID INT(10),NAME VARCHAR(25),AGE INT(2),PHNO1
INT(14));
INSERT INTO DRIVER_INFO values(45,"MUKESH",26,8767564321);
INSERT INTO DRIVER_INFO values(46,"GANESH",26,8767564329);
INSERT INTO DRIVER_INFO values(47,"SURESH",26,8767564327);
INSERT INTO DRIVER_INFO values(48,"RUPESH",26,8767564325);
INSERT INTO DRIVER_INFO values(49,"SARVESH",26,8767564371);
SELECT* FROM DRIVER_INFO;
```

The screenshot shows a SQL editor with the following code and output:

```
1 CREATE TABLE DRIVER_INFO(DRIVER_ID INT(10),NAME VARCHAR(25),AGE INT(2),PHNO1 INT(14));
2 INSERT INTO DRIVER_INFO values(45,"MUKESH",26,8767564321);
3 INSERT INTO DRIVER_INFO values(46,"GANESH",26,8767564329);
4 INSERT INTO DRIVER_INFO values(47,"SURESH",26,8767564327);
5 INSERT INTO DRIVER_INFO values(48,"RUPESH",26,8767564325);
6 INSERT INTO DRIVER_INFO values(49,"SARVESH",26,8767564371);
7
8
9 SELECT* FROM DRIVER_INFO;
10
```

Output:

```
45|MUKESH|26|8767564321
46|GANESH|26|8767564329
47|SURESH|26|8767564327
48|RUPESH|26|8767564325
49|SARVESH|26|8767564371

[Execution complete with exit code 0]
```

SELECT DISTINCT:-

QUERY:-

```
CREATE TABLE DRIVER_INFO(DRIVER_ID INT(10),NAME VARCHAR(25),AGE INT(2),PHNO1
INT(14));
INSERT INTO DRIVER_INFO values(45,"MUKESH",26,8767564321);
INSERT INTO DRIVER_INFO values(46,"GANESH",26,8767564329);
INSERT INTO DRIVER_INFO values(47,"SURESH",26,8767564327);
INSERT INTO DRIVER_INFO values(48,"RUPESH",26,8767564325);
INSERT INTO DRIVER_INFO values(49,"SARVESH",26,8767564371);
```

SELECT DISTINCT AGE FROM DRIVER_INFO;

The screenshot shows a SQL editor with the following code and output:

```
1 CREATE TABLE DRIVER_INFO(DRIVER_ID INT(10),NAME VARCHAR(25),AGE INT(2),PHNO1 INT(14));
2 INSERT INTO DRIVER_INFO values(45,"MUKESH",26,8767564321);
3 INSERT INTO DRIVER_INFO values(46,"GANESH",26,8767564329);
4 INSERT INTO DRIVER_INFO values(47,"SURESH",26,8767564327);
5 INSERT INTO DRIVER_INFO values(48,"RUPESH",26,8767564325);
6 INSERT INTO DRIVER_INFO values(49,"SARVESH",26,8767564371);
7
8
9
10
```

Output:

```
26

[Execution complete with exit code 0]
```

ALTER

QUERY:-

```
CREATE TABLE DRIVER_INFO(DRIVER_ID INT(10),NAME VARCHAR(25),AGE INT(2),PHNO
INT(14));
INSERT INTO DRIVER_INFO values(45,"MUKESH",26,8767564321);
INSERT INTO DRIVER_INFO values(46,"GANESH",26,8767564329);
INSERT INTO DRIVER_INFO values(47,"SURESH",26,8767564327);
INSERT INTO DRIVER_INFO values(48,"RUPESH",26,8767564325);
INSERT INTO DRIVER_INFO values(49,"SARVESH",26,8767564371);
ALTER TABLE DRIVER_INFO ADD PLACE VARCHAR(25);
SELECT * FROM DRIVER_INFO;
```

```

1 CREATE TABLE DRIVER_INFO(DRIVER_ID INT(10),NAME VARCHAR(25),AGE INT(2),PHNO1 INT(14));
2 INSERT INTO DRIVER_INFO values(45,"MUKESH",26,8767564321);
3 INSERT INTO DRIVER_INFO values(46,"GANESH",26,8767564329);
4 INSERT INTO DRIVER_INFO values(47,"SURESH",26,8767564327);
5 INSERT INTO DRIVER_INFO values(48,"RUPESH",26,8767564325);
6 INSERT INTO DRIVER_INFO values(49,"SARVESH",26,8767564371);
7 ALTER TABLE DRIVER_INFO ADD PLACE VARCHAR(25);
8 SELECT * FROM DRIVER_INFO;
9
10

```

Output
[Execution complete with exit code 0]

UPDATE:-

QUERY:-

```

CREATE TABLE DRIVER_INFO(DRIVER_ID INT(10),NAME VARCHAR(25),AGE INT(2),PHNO1 INT(14));
INSERT INTO DRIVER_INFO values(45,"MUKESH",26,8767564321);
INSERT INTO DRIVER_INFO values(46,"GANESH",26,8767564329);
INSERT INTO DRIVER_INFO values(47,"SURESH",26,8767564327);
INSERT INTO DRIVER_INFO values(48,"RUPESH",26,8767564325);
INSERT INTO DRIVER_INFO values(49,"SARVESH",26,8767564371);
ALTER TABLE DRIVER_INFO ADD PLACE VARCHAR(25);
UPDATE DRIVER_INFO SET NAME='MURALI' WHERE DRIVER_ID=49;
SELECT * FROM DRIVER_INFO;

```

```

1 CREATE TABLE DRIVER_INFO(DRIVER_ID INT(10),NAME VARCHAR(25),AGE INT(2),PHNO1 INT(14));
2 INSERT INTO DRIVER_INFO values(45,"MUKESH",26,8767564321);
3 INSERT INTO DRIVER_INFO values(46,"GANESH",26,8767564329);
4 INSERT INTO DRIVER_INFO values(47,"SURESH",26,8767564327);
5 INSERT INTO DRIVER_INFO values(48,"RUPESH",26,8767564325);
6 INSERT INTO DRIVER_INFO values(49,"SARVESH",26,8767564371);
7 ALTER TABLE DRIVER_INFO ADD PLACE VARCHAR(25);
8 UPDATE DRIVER_INFO SET NAME='MURALI' WHERE DRIVER_ID=49;
9 SELECT * FROM DRIVER_INFO;
10
11
12

```

Output
[Execution complete with exit code 0]

DELETE :-

QUERY:-

```

CREATE TABLE DRIVER_INFO(DRIVER_ID INT(10),NAME VARCHAR(25),AGE INT(2),PHNO1 INT(14));
INSERT INTO DRIVER_INFO values(45,"MUKESH",26,8767564321);
INSERT INTO DRIVER_INFO values(46,"GANESH",26,8767564329);
INSERT INTO DRIVER_INFO values(47,"SURESH",26,8767564327);
INSERT INTO DRIVER_INFO values(48,"RUPESH",26,8767564325);
INSERT INTO DRIVER_INFO values(49,"SARVESH",26,8767564371);
ALTER TABLE DRIVER_INFO ADD PLACE VARCHAR(25);
UPDATE DRIVER_INFO SET NAME='MURALI' WHERE DRIVER_ID=49;
DELETE FROM DRIVER_INFO WHERE DRIVER_ID=45;
SELECT * FROM DRIVER_INFO;

```

```

1 CREATE TABLE DRIVER_INFO(DRIVER_ID INT(10),NAME VARCHAR(25),AGE INT(2),PHNO1 INT(14));
2 INSERT INTO DRIVER_INFO values(45,"MUKESH",26,8767564321);
3 INSERT INTO DRIVER_INFO values(46,"GANESH",26,8767564329);
4 INSERT INTO DRIVER_INFO values(47,"SURESH",26,8767564327);
5 INSERT INTO DRIVER_INFO values(48,"RUPESH",26,8767564325);
6 INSERT INTO DRIVER_INFO values(49,"SARVESH",26,8767564371);
7 ALTER TABLE DRIVER_INFO ADD PLACE VARCHAR(25);
8 UPDATE DRIVER_INFO SET NAME='MURALI' WHERE DRIVER_ID=49;
9 DELETE FROM DRIVER_INFO WHERE DRIVER_ID=45;
10 SELECT * FROM DRIVER_INFO;
11
12
13

```

Output
[Execution complete with exit code 0]

NESTED QUERIES

IN:-

QUERY:-

```
CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM
VARCHAR(6));
INSERT INTO BUS VALUES(1,'DK1',25,'TN01');
INSERT INTO BUS VALUES(2,'DK2',45,'TN03');
INSERT INTO BUS VALUES(3,'DK3',25,'TN05');
INSERT INTO BUS VALUES(4,'DK4',30,'TN07');
INSERT INTO BUS VALUES(5,'DK5',35,'TN09');
ALTER TABLE BUS ADD BUS_TYPE VARCHAR(10);
UPDATE BUS SET PLATE_NUM='TN10' WHERE BUS_ID=5;
SELECT BUS_ID,PLATE_NUM,BUS_NAME FROM BUS WHERE CAPACITY IN(25,30);
```

```
1 CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM VARCHAR(6));
2 INSERT INTO BUS VALUES(1,'DK1',25,'TN01');
3 INSERT INTO BUS VALUES(2,'DK2',45,'TN03');
4 INSERT INTO BUS VALUES(3,'DK3',25,'TN05');
5 INSERT INTO BUS VALUES(4,'DK4',30,'TN07');
6 INSERT INTO BUS VALUES(5,'DK5',35,'TN09');
7 ALTER TABLE BUS ADD BUS_TYPE VARCHAR(10);
8 UPDATE BUS SET PLATE_NUM='TN10' WHERE BUS_ID=5;
9 SELECT BUS_ID,PLATE_NUM,BUS_NAME FROM BUS WHERE CAPACITY IN(25,30);
10 |
```

Program input

Output

```
1|TN01|DK1
3|TN05|DK3
4|TN07|DK4
```

[Execution complete with exit code 0]

NOT IN:-

QUERY:-

```
CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM
VARCHAR(6));
INSERT INTO BUS VALUES(1,'DK1',25,'TN01');
INSERT INTO BUS VALUES(2,'DK2',45,'TN03');
INSERT INTO BUS VALUES(3,'DK3',25,'TN05');
INSERT INTO BUS VALUES(4,'DK4',30,'TN07');
INSERT INTO BUS VALUES(5,'DK5',35,'TN09');
ALTER TABLE BUS ADD BUS_TYPE VARCHAR(10);
UPDATE BUS SET PLATE_NUM='TN10' WHERE BUS_ID=5;
SELECT BUS_ID,PLATE_NUM,BUS_NAME FROM BUS WHERE CAPACITY NOT IN(25,30);
```

```
1 CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM VARCHAR(6));
2 INSERT INTO BUS VALUES(1,'DK1',25,'TN01');
3 INSERT INTO BUS VALUES(2,'DK2',45,'TN03');
4 INSERT INTO BUS VALUES(3,'DK3',25,'TN05');
5 INSERT INTO BUS VALUES(4,'DK4',30,'TN07');
6 INSERT INTO BUS VALUES(5,'DK5',35,'TN09');
7 ALTER TABLE BUS ADD BUS_TYPE VARCHAR(10);
8 UPDATE BUS SET PLATE_NUM='TN10' WHERE BUS_ID=5;
9 SELECT BUS_ID,PLATE_NUM,BUS_NAME FROM BUS WHERE CAPACITY NOT IN(25,30);
10 |
```

Program input

Output

```
2|TN03|DK2
5|TN10|DK5
```

[Execution complete with exit code 0]

AGGREGATE FUNCTIONS

COUNT FUNCTION:-

QUERY:-

```
CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM  
VARCHAR(6));  
INSERT INTO BUS VALUES(1,'DK1',25,'TN01');  
INSERT INTO BUS VALUES(2,'DK2',45,'TN03');  
INSERT INTO BUS VALUES(3,'DK3',25,'TN05');  
INSERT INTO BUS VALUES(4,'DK4',30,'TN07');  
INSERT INTO BUS VALUES(5,'DK5',35,'TN09');  
SELECT *FROM BUS;  
SELECT COUNT(*) FROM BUS;
```

1 CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM VARCHAR(6)); 2 INSERT INTO BUS VALUES(1,'DK1',25,'TN01'); 3 INSERT INTO BUS VALUES(2,'DK2',45,'TN03'); 4 INSERT INTO BUS VALUES(3,'DK3',25,'TN05'); 5 INSERT INTO BUS VALUES(4,'DK4',30,'TN07'); 6 INSERT INTO BUS VALUES(5,'DK5',35,'TN09'); 7 SELECT *FROM BUS; 8 SELECT 9 COUNT(*) 10 FROM 11 BUS;	Output 1 DK1 25 TN01 2 DK2 45 TN03 3 DK3 25 TN05 4 DK4 30 TN07 5 DK5 35 TN09 5 [Execution complete with exit code 0]
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------

AVERAGE FUNCTION:-

QUERY:-

```
CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM  
VARCHAR(6));  
INSERT INTO BUS VALUES(1,'DK1',25,'TN01');  
INSERT INTO BUS VALUES(2,'DK2',45,'TN03');  
INSERT INTO BUS VALUES(3,'DK3',25,'TN05');  
INSERT INTO BUS VALUES(4,'DK4',30,'TN07');  
INSERT INTO BUS VALUES(5,'DK5',35,'TN09');  
SELECT *FROM BUS;  
SELECT AVG (CAPACITY) FROM BUS;
```

1 CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM VARCHAR(6)); 2 INSERT INTO BUS VALUES(1,'DK1',25,'TN01'); 3 INSERT INTO BUS VALUES(2,'DK2',45,'TN03'); 4 INSERT INTO BUS VALUES(3,'DK3',25,'TN05'); 5 INSERT INTO BUS VALUES(4,'DK4',30,'TN07'); 6 INSERT INTO BUS VALUES(5,'DK5',35,'TN09'); 7 SELECT *FROM BUS; 8 SELECT 9 COUNT(*) 10 FROM 11 BUS; 12 SELECT AVG (CAPACITY) FROM BUS;	Output 1 DK1 25 TN01 2 DK2 45 TN03 3 DK3 25 TN05 4 DK4 30 TN07 5 DK5 35 TN09 5 32.0 [Execution complete with exit code 0]
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------

SUM FUNCTION:-

QUERY:-

```
CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM  
VARCHAR(6));
```

```

INSERT INTO BUS VALUES(1,'DK1',25,'TN01');
INSERT INTO BUS VALUES(2,'DK2',45,'TN03');
INSERT INTO BUS VALUES(3,'DK3',25,'TN05');
INSERT INTO BUS VALUES(4,'DK4',30,'TN07');
INSERT INTO BUS VALUES(5,'DK5',35,'TN09');
SELECT *FROM BUS;

```

SELECT BUS_ID, SUM(CAPACITY) FROM BUS GROUP BY BUS_ID;

<pre> 1 CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM VARCHAR(6)); 2 INSERT INTO BUS VALUES(1,'DK1',25,'TN01'); 3 INSERT INTO BUS VALUES(2,'DK2',45,'TN03'); 4 INSERT INTO BUS VALUES(3,'DK3',25,'TN05'); 5 INSERT INTO BUS VALUES(4,'DK4',30,'TN07'); 6 INSERT INTO BUS VALUES(5,'DK5',35,'TN09'); 7 SELECT *FROM BUS; 8 SELECT 9 COUNT(*) 10 FROM 11 BUS; 12 SELECT AVG (CAPACITY) FROM BUS; 13 SELECT BUS_ID, SUM(CAPACITY) FROM BUS GROUP BY BUS_ID; 14 15 16 17 </pre>	<p>Output</p> <pre> 1 DK1 25 TN01 2 DK2 45 TN03 3 DK3 25 TN05 4 DK4 30 TN07 5 DK5 35 TN09 5 32.0 1 25 2 45 3 25 4 30 5 35 </pre> <p>[Execution complete with exit code 0]</p>
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

MAX,MIN FUNCTION:-

QUERY:-

```

CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM
VARCHAR(6));

```

```

INSERT INTO BUS VALUES(1,'DK1',25,'TN01');
INSERT INTO BUS VALUES(2,'DK2',45,'TN03');
INSERT INTO BUS VALUES(3,'DK3',25,'TN05');
INSERT INTO BUS VALUES(4,'DK4',30,'TN07');
INSERT INTO BUS VALUES(5,'DK5',35,'TN09');
SELECT *FROM BUS;

```

SELECT MIN (CAPACITY) FROM BUS;

SELECT MAX(CAPACITY) FROM BUS;

<pre> 1 CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM VARCHAR(6)); 2 INSERT INTO BUS VALUES(1,'DK1',25,'TN01'); 3 INSERT INTO BUS VALUES(2,'DK2',45,'TN03'); 4 INSERT INTO BUS VALUES(3,'DK3',25,'TN05'); 5 INSERT INTO BUS VALUES(4,'DK4',30,'TN07'); 6 INSERT INTO BUS VALUES(5,'DK5',35,'TN09'); 7 SELECT *FROM BUS; 8 SELECT MIN (CAPACITY) FROM BUS; 9 SELECT MAX(CAPACITY) FROM BUS; 10 </pre>	<p>Output</p> <pre> 1 DK1 25 TN01 2 DK2 45 TN03 3 DK3 25 TN05 4 DK4 30 TN07 5 DK5 35 TN09 25 45 </pre> <p>[Execution complete with exit code 0]</p>
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JOINS

JOIN :-

QUERY :-

```

CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM
VARCHAR(6),BUS_TYPE VARCHAR(10));
INSERT INTO BUS VALUES(1,'DK1',25,'TN01','AC');
INSERT INTO BUS VALUES(2,'DK2',45,'TN03','Non-AC');
INSERT INTO BUS VALUES(3,'DK3',25,'TN05','Non-AC');
INSERT INTO BUS VALUES(4,'DK4',30,'TN07','AC');
INSERT INTO BUS VALUES(5,'DK5',35,'TN09','AC');
UPDATE BUS SET PLATE_NUM='TN10' WHERE BUS_ID=5;
SELECT * FROM BUS;
CREATE TABLE DRIVER_INFO(DRIVER_ID INT(10),NAME VARCHAR(25),AGE INT(2),PHNO
INT(14),BUS_IDD INT);
INSERT INTO DRIVER_INFO values(45,"MUKESH",26,8767564321,1);
INSERT INTO DRIVER_INFO values(46,"GANESH",26,8767564329,3);
INSERT INTO DRIVER_INFO values(47,"SURESH",26,8767564327,5);
INSERT INTO DRIVER_INFO values(48,"RUPESH",26,8767564325,4);
INSERT INTO DRIVER_INFO values(49,"SARVESH",26,8767564371,1);
SELECT * FROM DRIVER_INFO;
SELECT BUS_ID,BUS_NAME,NAME,AGE FROM BUS,DRIVER_INFO WHERE BUS.BUS_ID =
DRIVER_INFO.BUS_IDD;

```

```

1 CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM VARCHAR(6),BUS_TYPE VARCHAR(10));
2 INSERT INTO BUS VALUES(1,'DK1',25,'TN01','AC');
3 INSERT INTO BUS VALUES(2,'DK2',45,'TN03','Non-AC');
4 INSERT INTO BUS VALUES(3,'DK3',25,'TN05','Non-AC');
5 INSERT INTO BUS VALUES(4,'DK4',30,'TN07','AC');
6 INSERT INTO BUS VALUES(5,'DK5',35,'TN09','AC');
7 UPDATE BUS SET PLATE_NUM='TN10' WHERE BUS_ID=5;
8 SELECT * FROM BUS;
9 CREATE TABLE DRIVER_INFO(DRIVER_ID INT(10),NAME VARCHAR(25),AGE INT(2),PHNO INT(14),BUS_IDD INT);
10 INSERT INTO DRIVER_INFO values(45,"MUKESH",26,8767564321,1);
11 INSERT INTO DRIVER_INFO values(46,"GANESH",26,8767564329,3);
12 INSERT INTO DRIVER_INFO values(47,"SURESH",26,8767564327,5);
13 INSERT INTO DRIVER_INFO values(48,"RUPESH",26,8767564325,4);
14 INSERT INTO DRIVER_INFO values(49,"SARVESH",26,8767564371,1);
15 SELECT * FROM DRIVER_INFO;
16 SELECT BUS_ID,BUS_NAME,NAME,AGE FROM BUS,DRIVER_INFO WHERE BUS.BUS_ID = DRIVER_INFO.BUS_IDD;
17
18

```

Output

```

1|DK1|25|TN01|AC
2|DK2|45|TN03|Non-AC
3|DK3|25|TN05|Non-AC
4|DK4|30|TN07|AC
5|DK5|35|TN09|AC
45|MUKESH|26|8767564321|1
46|GANESH|26|8767564329|3
47|SURESH|26|8767564327|5
48|RUPESH|26|8767564325|4
49|SARVESH|26|8767564371|1
1|DK1|MUKESH|26
1|DK1|SARVESH|26
3|DK3|GANESH|26
4|DK4|RUPESH|26
5|DK5|SURESH|26

```

[Execution complete with exit code 0]

INNER JOIN :-

QUERY:-

```

CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM
VARCHAR(6),BUS_TYPE VARCHAR(10));
INSERT INTO BUS VALUES(1,'DK1',25,'TN01','AC');
INSERT INTO BUS VALUES(2,'DK2',45,'TN03','Non-AC');
INSERT INTO BUS VALUES(3,'DK3',25,'TN05','Non-AC');
INSERT INTO BUS VALUES(4,'DK4',30,'TN07','AC');
INSERT INTO BUS VALUES(5,'DK5',35,'TN09','AC');
UPDATE BUS SET PLATE_NUM='TN10' WHERE BUS_ID=5;
SELECT * FROM BUS;

```

```

CREATE TABLE DRIVER_INFO(DRIVER_ID INT(10),NAME VARCHAR(25),AGE INT(2),PHNO
INT(14),BUS_IDD INT);
INSERT INTO DRIVER_INFO values(45,"MUKESH",26,8767564321,1);
INSERT INTO DRIVER_INFO values(46,"GANESH",26,8767564329,3);
INSERT INTO DRIVER_INFO values(47,"SURESH",26,8767564327,5);
INSERT INTO DRIVER_INFO values(48,"RUPESH",26,8767564325,4);
INSERT INTO DRIVER_INFO values(49,"SARVESH",26,8767564371,1);
SELECT * FROM DRIVER_INFO;
SELECT BUS_ID,BUS_NAME,NAME,PHNO FROM BUS INNER JOIN DRIVER_INFO ON
BUS.BUS_ID = DRIVER_INFO.BUS_IDD;

```

```

1 CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM VARCHAR(6),BUS_TYPE VARCHAR(10));
2 INSERT INTO BUS VALUES(1,'DK1',25,'TN01','AC');
3 INSERT INTO BUS VALUES(2,'DK2',45,'TN03','Non-AC');
4 INSERT INTO BUS VALUES(3,'DK3',25,'TN05','Non-AC');
5 INSERT INTO BUS VALUES(4,'DK4',30,'TN07','AC');
6 INSERT INTO BUS VALUES(5,'DK5',35,'TN09','AC');
7 UPDATE BUS SET PLATE_NUM='TN10' WHERE BUS_ID=5;
8 SELECT * FROM BUS;
9 CREATE TABLE DRIVER_INFO(DRIVER_ID INT(10),NAME VARCHAR(25),AGE INT(2),PHNO INT(14),BUS_IDD INT);
10 INSERT INTO DRIVER_INFO values(45,"MUKESH",26,8767564321,1);
11 INSERT INTO DRIVER_INFO values(46,"GANESH",26,8767564329,3);
12 INSERT INTO DRIVER_INFO values(47,"SURESH",26,8767564327,5);
13 INSERT INTO DRIVER_INFO values(48,"RUPESH",26,8767564325,4);
14 INSERT INTO DRIVER_INFO values(49,"SARVESH",26,8767564371,1);
15 SELECT * FROM DRIVER_INFO;
16 SELECT BUS_ID,BUS_NAME,NAME,PHNO FROM BUS INNER JOIN DRIVER_INFO ON BUS.BUS_ID = DRIVER_INFO.BUS_IDD;

```

Output

1 DK1 25 TN01 AC
2 DK2 45 TN03 Non-AC
3 DK3 25 TN05 Non-AC
4 DK4 30 TN07 AC
5 DK5 35 TN10 AC
45 MUKESH 26 8767564321 1
46 GANESH 26 8767564329 3
47 SURESH 26 8767564327 5
48 RUPESH 26 8767564325 4
49 SARVESH 26 8767564371 1
1 DK1 MUKESH 8767564321
3 DK3 GANESH 8767564329
4 DK4 RUPESH 8767564325
5 DK5 SURESH 8767564327

[Execution complete with exit code 0]

LEFT JOIN :-

QUERY :-

```

CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM
VARCHAR(6),BUS_TYPE VARCHAR(10));
INSERT INTO BUS VALUES(1,'DK1',25,'TN01','AC');
INSERT INTO BUS VALUES(2,'DK2',45,'TN03','Non-AC');
INSERT INTO BUS VALUES(3,'DK3',25,'TN05','Non-AC');
INSERT INTO BUS VALUES(4,'DK4',30,'TN07','AC');
INSERT INTO BUS VALUES(5,'DK5',35,'TN09','AC');
UPDATE BUS SET PLATE_NUM='TN10' WHERE BUS_ID=5;
SELECT * FROM BUS;
CREATE TABLE DRIVER_INFO(DRIVER_ID INT(10),NAME VARCHAR(25),AGE INT(2),PHNO
INT(14),BUS_IDD INT);
INSERT INTO DRIVER_INFO values(45,"MUKESH",26,8767564321,1);
INSERT INTO DRIVER_INFO values(46,"GANESH",26,8767564329,3);
INSERT INTO DRIVER_INFO values(47,"SURESH",26,8767564327,5);
INSERT INTO DRIVER_INFO values(48,"RUPESH",26,8767564325,4);
INSERT INTO DRIVER_INFO values(49,"SARVESH",26,8767564371,1);
SELECT * FROM DRIVER_INFO;
SELECT BUS_ID,BUS_NAME,NAME,AGE FROM BUS LEFT JOIN DRIVER_INFO ON BUS.BUS_ID
= DRIVER_INFO.BUS_IDD;

```

```

1 CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM VARCHAR(6),BUS_TYPE VARCHAR(10));
2 INSERT INTO BUS VALUES(1,'DK1',25,'TN01','AC');
3 INSERT INTO BUS VALUES(2,'DK2',45,'TN03','Non-AC');
4 INSERT INTO BUS VALUES(3,'DK3',25,'TN05','Non-AC');
5 INSERT INTO BUS VALUES(4,'DK4',30,'TN07','AC');
6 INSERT INTO BUS VALUES(5,'DK5',35,'TN09','AC');
7 UPDATE BUS SET PLATE_NUM='TN10' WHERE BUS_ID=5;
8 SELECT * FROM BUS;
9 CREATE TABLE DRIVER_INFO(DRIVER_ID INT(10),NAME VARCHAR(25),AGE INT(2),PHNO INT(14),BUS_IDD INT);
10 INSERT INTO DRIVER_INFO values(45,"MUKESH",26,8767564321,1);
11 INSERT INTO DRIVER_INFO values(46,"GANESH",26,8767564329,3);
12 INSERT INTO DRIVER_INFO values(47,"SURESH",26,8767564327,5);
13 INSERT INTO DRIVER_INFO values(48,"RUPESH",26,8767564325,4);
14 INSERT INTO DRIVER_INFO values(49,"SARVESH",26,8767564371,1);
15 SELECT * FROM DRIVER_INFO;
16 SELECT BUS_ID,BUS_NAME,NAME,AGE FROM BUS LEFT JOIN DRIVER_INFO ON BUS.BUS_ID = DRIVER_INFO.BUS_IDD
17

```

Output

```

1|DK1|25|TN01|AC
2|DK2|45|TN03|Non-AC
3|DK3|25|TN05|Non-AC
4|DK4|30|TN07|AC
5|DK5|35|TN09|AC
45|MUKESH|26|8767564321|1
46|GANESH|26|8767564329|3
47|SURESH|26|8767564327|5
48|RUPESH|26|8767564325|4
49|SARVESH|26|8767564371|1
1|DK1|MUKESH|26
2|DK2|
3|DK3|GANESH|26
4|DK4|RUPESH|26
5|DK5|SURESH|26

```

[Execution complete with exit code 0]

RIGHT JOIN :-

QUERY :-

```

CREATE TABLE BUS(BUS_ID INT ,BUS_NAME VARCHAR(20),CAPACITY INT,PLATE_NUM
VARCHAR(6),BUS_TYPE VARCHAR(10));
INSERT INTO BUS VALUES(1,'DK1',25,'TN01','AC');
INSERT INTO BUS VALUES(2,'DK2',45,'TN03','Non-AC');
INSERT INTO BUS VALUES(3,'DK3',25,'TN05','Non-AC');
INSERT INTO BUS VALUES(4,'DK4',30,'TN07','AC');
INSERT INTO BUS VALUES(5,'DK5',35,'TN09','AC');
SELECT * FROM BUS;
CREATE TABLE CUSTOMER_INFO(CUST_ID INT,CUST_NAME VARCHAR(20),AGE INT,BUS_IDD
INT);
INSERT INTO CUSTOMER_INFO VALUES(01,'KARPAGA',20,2);
INSERT INTO CUSTOMER_INFO VALUES(02,'DHANA',19,2);
INSERT INTO CUSTOMER_INFO VALUES(03,'PAVI',19,4);
INSERT INTO CUSTOMER_INFO VALUES(04,'ASIFA',20,5);
INSERT INTO CUSTOMER_INFO VALUES(05,'LAKSHMI',20,3);
SELECT * FROM CUSTOMER_INFO;
SELECT BUS_ID,BUS_NAME,CUST_NAME,AGE FROM BUS RIGHT JOIN CUSTOMER_INFO ON
BUS.BUS_ID = CUSTOMER_INFO.BUS_IDD;

```

The screenshot shows the SQL Query window with the following content:

```

SQLQuery1.sql - SYS-405\U...r (51)*
1|DK1|25|TN01|AC
2|DK2|45|TN03|Non-AC
3|DK3|25|TN05|Non-AC
4|DK4|30|TN07|AC
5|DK5|35|TN09|AC
45|MUKESH|26|8767564321|1
46|GANESH|26|8767564329|3
47|SURESH|26|8767564327|5
48|RUPESH|26|8767564325|4
49|SARVESH|26|8767564371|1
1|DK1|MUKESH|26
2|DK2|
3|DK3|GANESH|26
4|DK4|RUPESH|26
5|DK5|SURESH|26

```

The Results tab displays the following table:

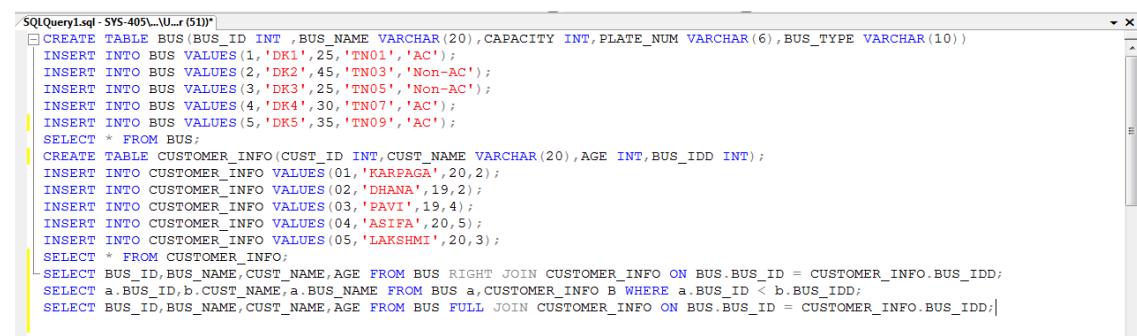
BUS_ID	BUS_NAME	CUST_NAME	AGE
1	DK2	KARPAGA	20
2	DK2	DHANA	19
3	DK4	PAVI	19
4	DK5	ASIFA	20
5	DK3	LAKSHMI	20

At the bottom of the results pane, it says "Query executed successfully."

FULL JOIN :-

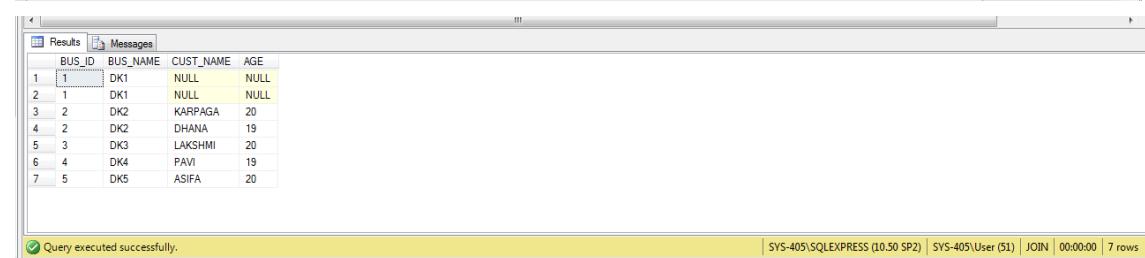
QUERY :-

```
CREATE TABLE BUS(BUS_ID INT ,BUS_NAME VARCHAR(20),CAPACITY INT,PLATE_NUM  
VARCHAR(6),BUS_TYPE VARCHAR(10))  
INSERT INTO BUS VALUES(1,'DK1',25,'TN01','AC');  
INSERT INTO BUS VALUES(2,'DK2',45,'TN03','Non-AC');  
INSERT INTO BUS VALUES(3,'DK3',25,'TN05','Non-AC');  
INSERT INTO BUS VALUES(4,'DK4',30,'TN07','AC');  
INSERT INTO BUS VALUES(5,'DK5',35,'TN09','AC');  
SELECT * FROM BUS;  
CREATE TABLE CUSTOMER_INFO(CUST_ID INT,CUST_NAME VARCHAR(20),AGE INT,BUS_IDD  
INT);  
INSERT INTO CUSTOMER_INFO VALUES(01,'KARPAGA',20,2);  
INSERT INTO CUSTOMER_INFO VALUES(02,'DHANA',19,2);  
INSERT INTO CUSTOMER_INFO VALUES(03,'PAVI',19,4);  
INSERT INTO CUSTOMER_INFO VALUES(04,'ASIFA',20,5);  
INSERT INTO CUSTOMER_INFO VALUES(05,'LAKSHMI',20,3);  
SELECT * FROM CUSTOMER_INFO;  
SELECT BUS_ID,BUS_NAME,CUST_NAME,AGE FROM BUS RIGHT JOIN CUSTOMER_INFO ON  
BUS.BUS_ID = CUSTOMER_INFO.BUS_IDD;  
SELECT a.BUS_ID,b.CUST_NAME,a.BUS_NAME FROM BUS a,CUSTOMER_INFO b WHERE a.BUS_ID  
< b.BUS_IDD;  
SELECT BUS_ID,BUS_NAME,CUST_NAME,AGE FROM BUS FULL JOIN CUSTOMER_INFO ON  
BUS.BUS_ID = CUSTOMER_INFO.BUS_IDD;
```



The screenshot shows the SQL Query window with the following content:

```
SQLQuery1.sql - SYS-405\U...r (51)*  
CREATE TABLE BUS(BUS_ID INT ,BUS_NAME VARCHAR(20),CAPACITY INT,PLATE_NUM VARCHAR(6),BUS_TYPE VARCHAR(10))  
INSERT INTO BUS VALUES(1,'DK1',25,'TN01','AC');  
INSERT INTO BUS VALUES(2,'DK2',45,'TN03','Non-AC');  
INSERT INTO BUS VALUES(3,'DK3',25,'TN05','Non-AC');  
INSERT INTO BUS VALUES(4,'DK4',30,'TN07','AC');  
INSERT INTO BUS VALUES(5,'DK5',35,'TN09','AC');  
SELECT * FROM BUS;  
CREATE TABLE CUSTOMER_INFO(CUST_ID INT,CUST_NAME VARCHAR(20),AGE INT,BUS_IDD INT);  
INSERT INTO CUSTOMER_INFO VALUES(01,'KARPAGA',20,2);  
INSERT INTO CUSTOMER_INFO VALUES(02,'DHANA',19,2);  
INSERT INTO CUSTOMER_INFO VALUES(03,'PAVI',19,4);  
INSERT INTO CUSTOMER_INFO VALUES(04,'ASIFA',20,5);  
INSERT INTO CUSTOMER_INFO VALUES(05,'LAKSHMI',20,3);  
SELECT * FROM CUSTOMER_INFO;  
SELECT BUS_ID,BUS_NAME,CUST_NAME,AGE FROM BUS RIGHT JOIN CUSTOMER_INFO ON BUS.BUS_ID = CUSTOMER_INFO.BUS_IDD;  
SELECT a.BUS_ID,b.CUST_NAME,a.BUS_NAME FROM BUS a,CUSTOMER_INFO b WHERE a.BUS_ID < b.BUS_IDD;  
SELECT BUS_ID,BUS_NAME,CUST_NAME,AGE FROM BUS FULL JOIN CUSTOMER_INFO ON BUS.BUS_ID = CUSTOMER_INFO.BUS_IDD;
```



The screenshot shows the Results grid with the following data:

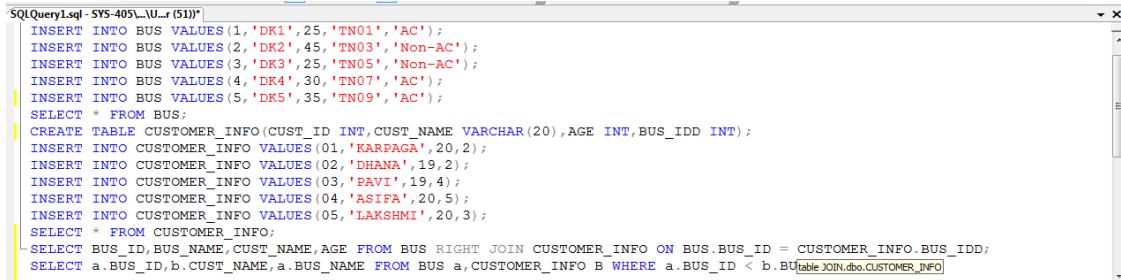
	BUS_ID	BUS_NAME	CUST_NAME	AGE
1	1	DK1	NULL	NULL
2	1	DK1	KARPAGA	20
3	2	DK2	DHANA	19
4	2	DK2	PAVI	19
5	3	DK3	LAKSHMI	20
6	4	DK4	ASIFA	20
7	5	DK5		

At the bottom of the results grid, there is a message bar indicating: "Query executed successfully." and "SYS-405\SQLEXPRESS (10.50 SP2) | SYS-405\User (51) | JOIN | 00:00:00 | 7 rows".

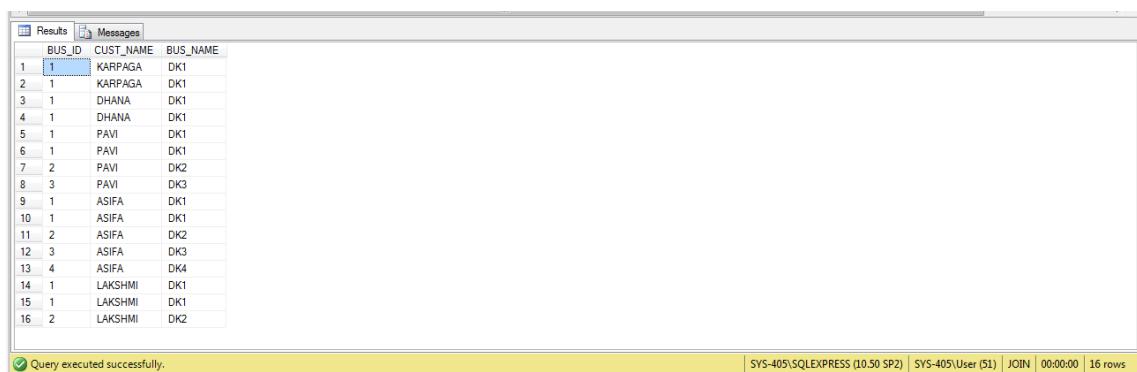
SELF JOIN :-

QUERY :-

```
CREATE TABLE BUS(BUS_ID INT ,BUS_NAME VARCHAR(20),CAPACITY INT,PLATE_NUM  
VARCHAR(6),BUS_TYPE VARCHAR(10))  
INSERT INTO BUS VALUES(1,'DK1',25,'TN01','AC');  
INSERT INTO BUS VALUES(2,'DK2',45,'TN03','Non-AC');  
INSERT INTO BUS VALUES(3,'DK3',25,'TN05','Non-AC');  
INSERT INTO BUS VALUES(4,'DK4',30,'TN07','AC');  
INSERT INTO BUS VALUES(5,'DK5',35,'TN09','AC');  
SELECT * FROM BUS;  
CREATE TABLE CUSTOMER_INFO(CUST_ID INT,CUST_NAME VARCHAR(20),AGE INT,BUS_IDD  
INT);  
INSERT INTO CUSTOMER_INFO VALUES(01,'KARPAGA',20,2);  
INSERT INTO CUSTOMER_INFO VALUES(02,'DHANA',19,2);  
INSERT INTO CUSTOMER_INFO VALUES(03,'PAVI',19,4);  
INSERT INTO CUSTOMER_INFO VALUES(04,'ASIFA',20,5);  
INSERT INTO CUSTOMER_INFO VALUES(05,'LAKSHMI',20,3);  
SELECT * FROM CUSTOMER_INFO;  
SELECT BUS_ID,BUS_NAME,CUST_NAME,AGE FROM BUS RIGHT JOIN CUSTOMER_INFO ON  
BUS.BUS_ID = CUSTOMER_INFO.BUS_IDD;  
SELECT a.BUS_ID,b.CUST_NAME,a.BUS_NAME FROM BUS a,CUSTOMER_INFO b WHERE  
a.BUS_ID < b.BUS_IDD;
```



```
SQLQuery1.sql - SYS-405\U_U-(51) [ ]  
| INSERT INTO BUS VALUES(1,'DK1',25,'TN01','AC');  
| INSERT INTO BUS VALUES(2,'DK2',45,'TN03','Non-AC');  
| INSERT INTO BUS VALUES(3,'DK3',25,'TN05','Non-AC');  
| INSERT INTO BUS VALUES(4,'DK4',30,'TN07','AC');  
| INSERT INTO BUS VALUES(5,'DK5',35,'TN09','AC');  
| SELECT * FROM BUS;  
| CREATE TABLE CUSTOMER_INFO(CUST_ID INT,CUST_NAME VARCHAR(20),AGE INT,BUS_IDD INT);  
| INSERT INTO CUSTOMER_INFO VALUES(01,'KARPAGA',20,2);  
| INSERT INTO CUSTOMER_INFO VALUES(02,'DHANA',19,2);  
| INSERT INTO CUSTOMER_INFO VALUES(03,'PAVI',19,4);  
| INSERT INTO CUSTOMER_INFO VALUES(04,'ASIFA',20,5);  
| INSERT INTO CUSTOMER_INFO VALUES(05,'LAKSHMI',20,3);  
| SELECT * FROM CUSTOMER_INFO;  
| -SELECT BUS_ID,BUS_NAME,CUST_NAME,AGE FROM BUS RIGHT JOIN CUSTOMER_INFO ON BUS.BUS_ID = CUSTOMER_INFO.BUS_IDD;  
| -SELECT a.BUS_ID,b.CUST_NAME,a.BUS_NAME FROM BUS a,CUSTOMER_INFO b WHERE a.BUS_ID < b.BUS_IDD;
```

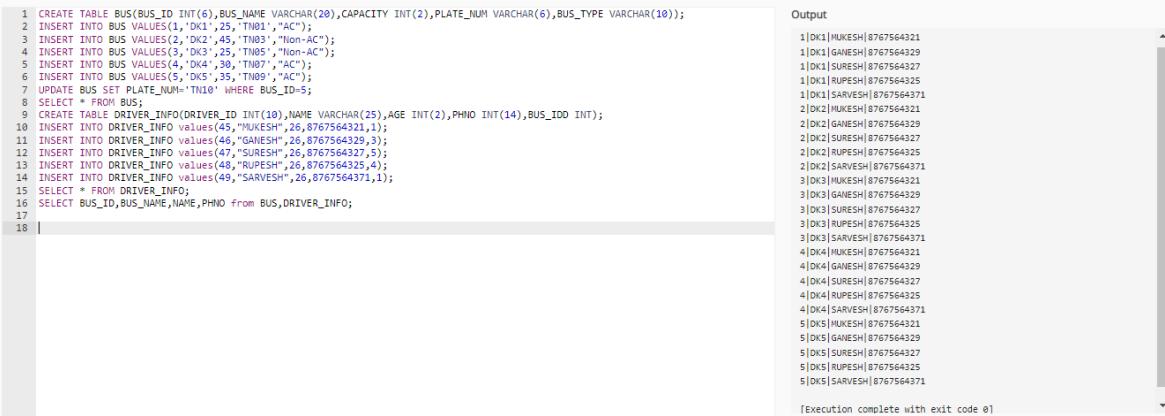


	BUS_ID	CUST_NAME	BUS_NAME
1	1	KARPAGA	DK1
2	1	KARPAGA	DK1
3	1	DHANA	DK1
4	1	DHANA	DK1
5	1	PAVI	DK1
6	1	PAVI	DK1
7	2	PAVI	DK2
8	3	PAVI	DK3
9	1	ASIFA	DK1
10	1	ASIFA	DK1
11	2	ASIFA	DK2
12	3	ASIFA	DK3
13	4	ASIFA	DK4
14	1	LAKSHMI	DK1
15	1	LAKSHMI	DK1
16	2	LAKSHMI	DK2

CARTESIAN JOIN :-

QUERY :-

```
CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM  
VARCHAR(6),BUS_TYPE VARCHAR(10));  
INSERT INTO BUS VALUES(1,'DK1',25,'TN01','AC');  
INSERT INTO BUS VALUES(2,'DK2',45,'TN03','Non-AC');  
INSERT INTO BUS VALUES(3,'DK3',25,'TN05','Non-AC');  
INSERT INTO BUS VALUES(4,'DK4',30,'TN07','AC');  
INSERT INTO BUS VALUES(5,'DK5',35,'TN09','AC');  
UPDATE BUS SET PLATE_NUM='TN10' WHERE BUS_ID=5;  
SELECT * FROM BUS;  
CREATE TABLE DRIVER_INFO(DRIVER_ID INT(10),NAME VARCHAR(25),AGE INT(2),PHNO  
INT(14),BUS_IDD INT);  
INSERT INTO DRIVER_INFO values(45,"MUKESH",26,8767564321,1);  
INSERT INTO DRIVER_INFO values(46,"GANESH",26,8767564329,3);  
INSERT INTO DRIVER_INFO values(47,"SURESH",26,8767564327,5);  
INSERT INTO DRIVER_INFO values(48,"RUPESH",26,8767564325,4);  
INSERT INTO DRIVER_INFO values(49,"SARVESH",26,8767564371,1);  
SELECT * FROM DRIVER_INFO;  
SELECT BUS_ID,BUS_NAME,NAME,PHNO from BUS,DRIVER_INFO;
```



The screenshot shows a terminal window with two panes. The left pane contains the SQL code provided above. The right pane shows the output of the queries:

```
Output  
1|DK1|MUKESH|8767564321  
1|DK1|GANESH|8767564329  
1|DK1|SURESH|8767564327  
1|DK1|RUPESH|8767564325  
1|DK1|SARVESH|8767564371  
2|DK2|MUKESH|8767564321  
2|DK2|GANESH|8767564329  
2|DK2|SURESH|8767564327  
2|DK2|RUPESH|8767564325  
2|DK2|SARVESH|8767564371  
3|DK3|MUKESH|8767564321  
3|DK3|GANESH|8767564329  
3|DK3|SURESH|8767564327  
3|DK3|RUPESH|8767564325  
3|DK3|SARVESH|8767564371  
4|DK4|MUKESH|8767564321  
4|DK4|GANESH|8767564329  
4|DK4|SURESH|8767564327  
4|DK4|RUPESH|8767564325  
4|DK4|SARVESH|8767564371  
5|DK5|MUKESH|8767564321  
5|DK5|GANESH|8767564329  
5|DK5|SURESH|8767564327  
5|DK5|RUPESH|8767564325  
5|DK5|SARVESH|8767564371
```

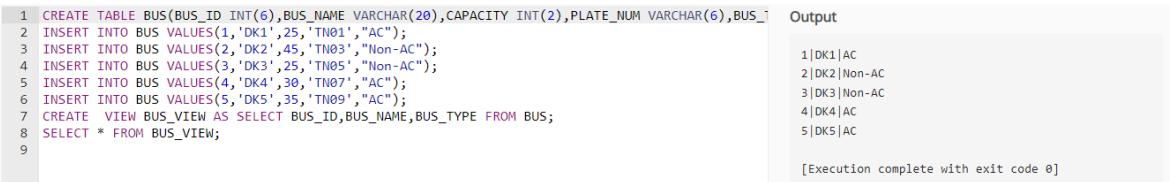
Execution complete with exit code 0

VIEWS AND SET OPERATORS

VIEW :-

QUERY :-

```
CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM  
VARCHAR(6),BUS_TYPE VARCHAR(10));  
INSERT INTO BUS VALUES(1,'DK1',25,'TN01','AC');  
INSERT INTO BUS VALUES(2,'DK2',45,'TN03','Non-AC');  
INSERT INTO BUS VALUES(3,'DK3',25,'TN05','Non-AC');  
INSERT INTO BUS VALUES(4,'DK4',30,'TN07','AC');  
INSERT INTO BUS VALUES(5,'DK5',35,'TN09','AC');  
CREATE VIEW BUS_VIEW AS SELECT BUS_ID,BUS_NAME,BUS_TYPE FROM BUS;  
SELECT * FROM BUS_VIEW;
```



```
1 CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM VARCHAR(6),BUS_  
2 INSERT INTO BUS VALUES(1,'DK1',25,'TN01','AC');  
3 INSERT INTO BUS VALUES(2,'DK2',45,'TN03','Non-AC');  
4 INSERT INTO BUS VALUES(3,'DK3',25,'TN05','Non-AC');  
5 INSERT INTO BUS VALUES(4,'DK4',30,'TN07','AC');  
6 INSERT INTO BUS VALUES(5,'DK5',35,'TN09','AC');  
7 CREATE VIEW BUS_VIEW AS SELECT BUS_ID,BUS_NAME,BUS_TYPE FROM BUS;  
8 SELECT * FROM BUS_VIEW;  
9
```

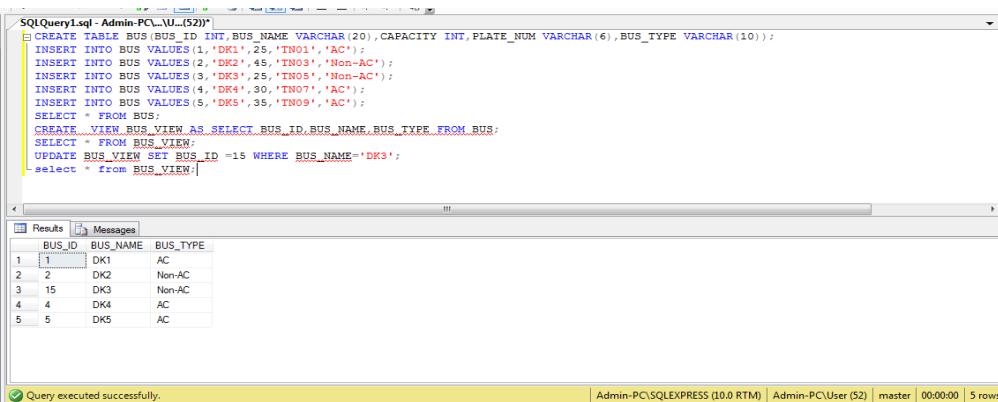
1	DK1 AC			
2	DK2 Non-AC			
3	DK3 Non-AC			
4	DK4 AC			
5	DK5 AC			

[Execution complete with exit code 0]

UPDATE :-

QUERY :-

```
CREATE TABLE BUS(BUS_ID INT,BUS_NAME VARCHAR(20),CAPACITY INT,PLATE_NUM  
VARCHAR(6),BUS_TYPE VARCHAR(10));  
INSERT INTO BUS VALUES(1,'DK1',25,'TN01','AC');  
INSERT INTO BUS VALUES(2,'DK2',45,'TN03','Non-AC');  
INSERT INTO BUS VALUES(3,'DK3',25,'TN05','Non-AC');  
INSERT INTO BUS VALUES(4,'DK4',30,'TN07','AC');  
INSERT INTO BUS VALUES(5,'DK5',35,'TN09','AC');  
SELECT * FROM BUS;  
CREATE VIEW BUS_VIEW AS SELECT BUS_ID,BUS_NAME,BUS_TYPE FROM BUS;  
SELECT * FROM BUS_VIEW;  
UPDATE BUS_VIEW SET BUS_ID =15 WHERE BUS_NAME='DK3';  
SELECT * from BUS_VIEW;
```



```
SQLQuery1.sql - Admin-PC\U-(52) [ ]  
CREATE TABLE BUS(BUS_ID INT,BUS_NAME VARCHAR(20),CAPACITY INT,PLATE_NUM VARCHAR(6),BUS_TYPE VARCHAR(10));  
INSERT INTO BUS VALUES(1,'DK1',25,'TN01','AC');  
INSERT INTO BUS VALUES(2,'DK2',45,'TN03','Non-AC');  
INSERT INTO BUS VALUES(3,'DK3',25,'TN05','Non-AC');  
INSERT INTO BUS VALUES(4,'DK4',30,'TN07','AC');  
INSERT INTO BUS VALUES(5,'DK5',35,'TN09','AC');  
SELECT * FROM BUS;  
CREATE VIEW BUS_VIEW AS SELECT BUS_ID,BUS_NAME,BUS_TYPE FROM BUS;  
SELECT * FROM BUS_VIEW;  
UPDATE BUS_VIEW SET BUS_ID =15 WHERE BUS_NAME='DK3';  
select * from BUS_VIEW;
```

BUS_ID	BUS_NAME	BUS_TYPE
1	DK1	AC
2	DK2	Non-AC
3	DK3	Non-AC
4	DK4	AC
5	DK5	AC
15	DK3	Non-AC

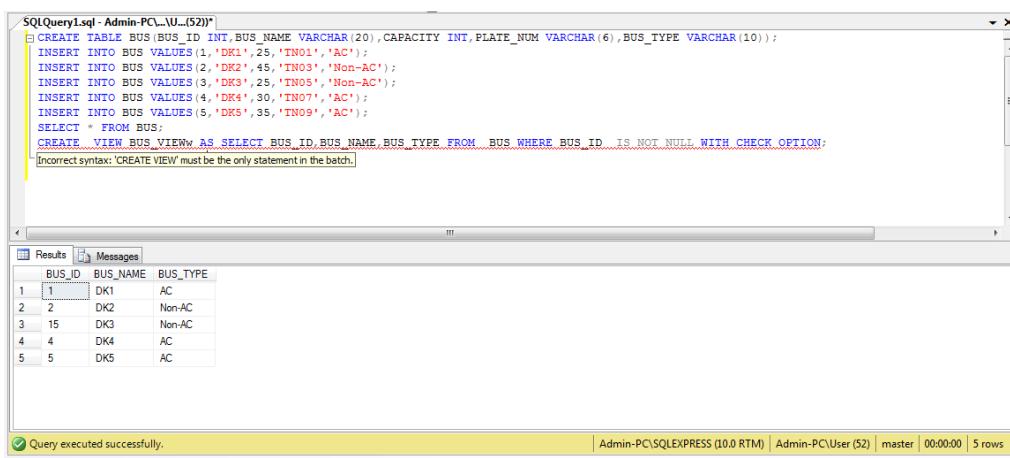
Query executed successfully.

Admin-PC\SQLEXPRESS (10.0 RTM) | Admin-PC\User (52) | master | 00:00:00 | 5 rows

WITH CHECK OPTION :-

QUERY :-

```
CREATE TABLE BUS(BUS_ID INT,BUS_NAME VARCHAR(20),CAPACITY INT,PLATE_NUM  
VARCHAR(6),BUS_TYPE VARCHAR(10));  
INSERT INTO BUS VALUES(1,'DK1',25,'TN01','AC');  
INSERT INTO BUS VALUES(2,'DK2',45,'TN03','Non-AC');  
INSERT INTO BUS VALUES(3,'DK3',25,'TN05','Non-AC');  
INSERT INTO BUS VALUES(4,'DK4',30,'TN07','AC');  
INSERT INTO BUS VALUES(5,'DK5',35,'TN09','AC');  
SELECT * FROM BUS;  
CREATE VIEW BUS_VIEWw AS SELECT BUS_ID,BUS_NAME,BUS_TYPE FROM BUS WHERE  
BUS_ID IS NOT NULL WITH CHECK OPTION;  
SELECT * FROM BUS_VIEWw;
```



The screenshot shows the SQL Query window with the following content:

```
SQLQuery1.sql - Admin-PC\...\User (S2)*  
CREATE TABLE BUS(BUS_ID INT,BUS_NAME VARCHAR(20),CAPACITY INT,PLATE_NUM  
VARCHAR(6),BUS_TYPE VARCHAR(10));  
INSERT INTO BUS VALUES(1,'DK1',25,'TN01','AC');  
INSERT INTO BUS VALUES(2,'DK2',45,'TN03','Non-AC');  
INSERT INTO BUS VALUES(3,'DK3',25,'TN05','Non-AC');  
INSERT INTO BUS VALUES(4,'DK4',30,'TN07','AC');  
INSERT INTO BUS VALUES(5,'DK5',35,'TN09','AC');  
SELECT * FROM BUS;  
CREATE VIEW BUS_VIEWw AS SELECT BUS_ID,BUS_NAME,BUS_TYPE FROM BUS WHERE BUS_ID IS NOT NULL WITH CHECK OPTION;  
[Incorrect syntax: 'CREATE VIEW' must be the only statement in the batch.]
```

The Results tab displays the data from the BUS table:

BUS_ID	BUS_NAME	BUS_TYPE
1	DK1	AC
2	DK2	Non-AC
3	DK3	Non-AC
4	DK4	AC
5	DK5	AC

Message bar: Query executed successfully.

DELETING ROWS INTO A VIEW:-

QUERY:-

```
CREATE TABLE BUS(BUS_ID INT,BUS_NAME VARCHAR(20),CAPACITY INT,PLATE_NUM  
VARCHAR(6),BUS_TYPE VARCHAR(10));  
INSERT INTO BUS VALUES(1,'DK1',25,'TN01','AC');  
INSERT INTO BUS VALUES(2,'DK2',45,'TN03','Non-AC');  
INSERT INTO BUS VALUES(3,'DK3',25,'TN05','Non-AC');  
INSERT INTO BUS VALUES(4,'DK4',30,'TN07','AC');  
INSERT INTO BUS VALUES(5,'DK5',35,'TN09','AC');  
SELECT * FROM BUS;  
CREATE VIEW BUS_VIEWw AS SELECT BUS_ID,BUS_NAME,BUS_TYPE FROM BUS WHERE  
BUS_ID IS NOT NULL WITH CHECK OPTION;  
SELECT * FROM BUS_VIEWw;  
DELETE FROM BUS_VIEWw WHERE BUS_ID =4;  
SELECT * FROM BUS_VIEWw;
```

```

Microsoft SQL Server Management Studio
File Edit View Query Debug Tools Window Community Help
New Query Object Explorer SQL Server Object Explorer
SQlQueryLog - Admin-PC\SQLUser (S2)
CREATE TABLE BUS(BUS_ID INT,BUS_NAME VARCHAR(20),CAPACITY INT,PLATE_NUM VARCHAR(6),BUS_TYPE VARCHAR(10));
INSERT INTO BUS VALUES(1,'DK1',25,'TN01','AC');
INSERT INTO BUS VALUES(2,'DK2',45,'TN03','Non-AC');
INSERT INTO BUS VALUES(3,'DK3',25,'TN05','Non-AC');
INSERT INTO BUS VALUES(4,'DK4',30,'TN07','AC');
INSERT INTO BUS VALUES(5,'DK5',35,'TN09','AC');
SELECT * FROM BUS;
CREATE VIEW BUS_VIEW AS SELECT BUS_ID,BUS_NAME,BUS_TYPE FROM BUS WHERE BUS_ID IS NOT NULL WITH CHECK OPTION;
select * FROM BUS_VIEW;
DELETE FROM BUS_VIEW
WHERE BUS_ID = 4;
select * FROM BUS_VIEW;

```

Results

BUS_ID	BUS_NAME	BUS_TYPE
1	DK1	AC
2	DK2	Non-AC
3	DK3	Non-AC
4	DK5	AC

Query executed successfully.

UNION:-

QUERY:-

```

CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM
VARCHAR(6),BUS_TYPE VARCHAR(10));
INSERT INTO BUS VALUES(1,'DK1',25,'TN01',"AC");
INSERT INTO BUS VALUES(2,'DK2',45,'TN03',"Non-AC");
INSERT INTO BUS VALUES(3,'DK3',25,'TN05',"Non-AC");
INSERT INTO BUS VALUES(4,'DK4',30,'TN07',"AC");
INSERT INTO BUS VALUES(5,'DK5',35,'TN09',"AC");
CREATE TABLE DRIVER_INFO(DRIVER_ID INT(10),NAME VARCHAR(25),AGE INT(2),PHNO
INT(14),BUS_ID INT);
INSERT INTO DRIVER_INFO values(45,"MUKESH",26,8767564321,1);
INSERT INTO DRIVER_INFO values(46,"GANESH",26,8767564329,3);
INSERT INTO DRIVER_INFO values(47,"SURESH",26,8767564327,5);
INSERT INTO DRIVER_INFO values(48,"RUPESH",26,8767564325,4);
INSERT INTO DRIVER_INFO values(49,"SARVESH",26,8767564371,1);
SELECT * FROM BUS UNION SELECT * FROM DRIVER_INFO;

```

```

1 CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM VARCHAR(6),BUS_
2 INSERT INTO BUS VALUES(1,'DK1',25,'TN01',"AC");
3 INSERT INTO BUS VALUES(2,'DK2',45,'TN03',"Non-AC");
4 INSERT INTO BUS VALUES(3,'DK3',25,'TN05',"Non-AC");
5 INSERT INTO BUS VALUES(4,'DK4',30,'TN07',"AC");
6 INSERT INTO BUS VALUES(5,'DK5',35,'TN09',"AC");
7 CREATE TABLE DRIVER_INFO(DRIVER_ID INT(10),NAME VARCHAR(25),AGE INT(2),PHNO INT(14),BUS_ID :
8 INSERT INTO DRIVER_INFO values(45,"MUKESH",26,8767564321,1);
9 INSERT INTO DRIVER_INFO values(46,"GANESH",26,8767564329,3);
10 INSERT INTO DRIVER_INFO values(47,"SURESH",26,8767564327,5);
11 INSERT INTO DRIVER_INFO values(48,"RUPESH",26,8767564325,4);
12 INSERT INTO DRIVER_INFO values(49,"SARVESH",26,8767564371,1);
13 SELECT * FROM BUS UNION SELECT * FROM DRIVER_INFO;
14

```

Output

1 DK1 25 TN01 AC
2 DK2 45 TN03 Non-AC
3 DK3 25 TN05 Non-AC
4 DK4 30 TN07 AC
5 DK5 35 TN09 AC
45 MUKESH 26 8767564321 1
46 GANESH 26 8767564329 3
47 SURESH 26 8767564327 5
48 RUPESH 26 8767564325 4
49 SARVESH 26 8767564371 1

[Execution complete with exit code 0]

UNION ALL:-

QUERY:-

```

CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM
VARCHAR(6),BUS_TYPE VARCHAR(10));
INSERT INTO BUS VALUES(1,'DK1',25,'TN01',"AC");

```

```

INSERT INTO BUS VALUES(2,'DK2',45,'TN03',"Non-AC");
INSERT INTO BUS VALUES(3,'DK3',25,'TN05',"Non-AC");
INSERT INTO BUS VALUES(4,'DK4',30,'TN07',"AC");
INSERT INTO BUS VALUES(5,'DK5',35,'TN09',"AC");
CREATE TABLE DRIVER_INFO(DRIVER_ID INT(10),NAME VARCHAR(25),AGE INT(2),PHNO
INT(14),BUS_IDD INT);
INSERT INTO DRIVER_INFO values(45,"MUKESH",26,8767564321,1);
INSERT INTO DRIVER_INFO values(46,"GANESH",26,8767564329,3);
INSERT INTO DRIVER_INFO values(47,"SURESH",26,8767564327,5);
INSERT INTO DRIVER_INFO values(48,"RUPESH",26,8767564325,4);
INSERT INTO DRIVER_INFO values(49,"SARVESH",26,8767564371,1);
SELECT * FROM BUS UNION ALL SELECT * FROM DRIVER_INFO;

```

```

1 CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM VARCHAR(6),BUS_
2 INSERT INTO BUS VALUES(1,'DK1',25,'TN01',"AC");
3 INSERT INTO BUS VALUES(2,'DK2',45,'TN03',"Non-AC");
4 INSERT INTO BUS VALUES(3,'DK3',25,'TN05',"Non-AC");
5 INSERT INTO BUS VALUES(4,'DK4',30,'TN07',"AC");
6 INSERT INTO BUS VALUES(5,'DK5',35,'TN09',"AC");
7 CREATE TABLE DRIVER_INFO(DRIVER_ID INT(10),NAME VARCHAR(25),AGE INT(2),PHNO INT(14),BUS_IDD :
8 INSERT INTO DRIVER_INFO values(45,"MUKESH",26,8767564321,1);
9 INSERT INTO DRIVER_INFO values(46,"GANESH",26,8767564329,3);
10 INSERT INTO DRIVER_INFO values(47,"SURESH",26,8767564327,5);
11 INSERT INTO DRIVER_INFO values(48,"RUPESH",26,8767564325,4);
12 INSERT INTO DRIVER_INFO values(49,"SARVESH",26,8767564371,1);
13 SELECT * FROM BUS UNION ALL SELECT * FROM DRIVER_INFO;
14
15
16
17

```

Output

```

1|DK1|25|TN01|AC
2|DK2|45|TN03|Non-AC
3|DK3|25|TN05|Non-AC
4|DK4|30|TN07|AC
5|DK5|35|TN09|AC
45|MUKESH|26|8767564321|1
46|GANESH|26|8767564329|3
47|SURESH|26|8767564327|5
48|RUPESH|26|8767564325|4
49|SARVESH|26|8767564371|1

```

[Execution complete with exit code 0]

INTERSECT:-

QUERY:-

```

CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM
VARCHAR(6),BUS_TYPE VARCHAR(10));
INSERT INTO BUS VALUES(1,'DK1',25,'TN01',"AC");
INSERT INTO BUS VALUES(2,'DK2',45,'TN03',"Non-AC");
INSERT INTO BUS VALUES(3,'DK3',25,'TN05',"Non-AC");
INSERT INTO BUS VALUES(4,'DK4',30,'TN07',"AC");
INSERT INTO BUS VALUES(5,'DK5',35,'TN09',"AC");
CREATE TABLE DRIVER_INFO(DRIVER_ID INT(10),NAME VARCHAR(25),AGE INT(2),PHNO
INT(14),BUS_ID INT);
INSERT INTO DRIVER_INFO values(45,"MUKESH",26,8767564321,1);
INSERT INTO DRIVER_INFO values(46,"GANESH",26,8767564329,3);
INSERT INTO DRIVER_INFO values(47,"SURESH",26,8767564327,5);
INSERT INTO DRIVER_INFO values(48,"RUPESH",26,8767564325,4);
INSERT INTO DRIVER_INFO values(49,"SARVESH",26,8767564371,1);
SELECT * FROM BUS INTERSECT SELECT * FROM DRIVER_INFO;

```

```

1 CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM VARCHAR(6),BUS_
2 INSERT INTO BUS VALUES(1,'DK1',25,'TN01',"AC");
3 INSERT INTO BUS VALUES(2,'DK2',45,'TN03',"Non-AC");
4 INSERT INTO BUS VALUES(3,'DK3',25,'TN05',"Non-AC");
5 INSERT INTO BUS VALUES(4,'DK4',30,'TN07',"AC");
6 INSERT INTO BUS VALUES(5,'DK5',35,'TN09',"AC");
7 CREATE TABLE DRIVER_INFO(DRIVER_ID INT(10),NAME VARCHAR(25),AGE INT(2),PHNO INT(14),BUS_ID I
8 INSERT INTO DRIVER_INFO values(45,"MUKESH",26,8767564321,1);
9 INSERT INTO DRIVER_INFO values(46,"GANESH",26,8767564329,3);
10 INSERT INTO DRIVER_INFO values(47,"SURESH",26,8767564327,5);
11 INSERT INTO DRIVER_INFO values(48,"RUPESH",26,8767564325,4);
12 INSERT INTO DRIVER_INFO values(49,"SARVESH",26,8767564371,1);
13 SELECT * FROM BUS INTERSECT SELECT * FROM DRIVER_INFO;
14
15
16
17

```

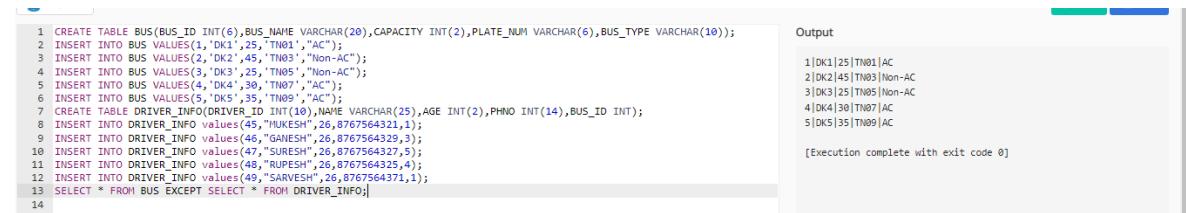
Output

[Execution complete with exit code 0]

MINUS (EXCEPT) :-

QUERY:-

```
CREATE TABLE BUS(BUS_ID INT(6),BUS_NAME VARCHAR(20),CAPACITY INT(2),PLATE_NUM  
VARCHAR(6),BUS_TYPE VARCHAR(10));  
INSERT INTO BUS VALUES(1,'DK1',25,'TN01','AC');  
INSERT INTO BUS VALUES(2,'DK2',45,'TN03','Non-AC');  
INSERT INTO BUS VALUES(3,'DK3',25,'TN05','Non-AC');  
INSERT INTO BUS VALUES(4,'DK4',30,'TN07','AC');  
INSERT INTO BUS VALUES(5,'DK5',35,'TN09','AC');  
CREATE TABLE DRIVER_INFO(DRIVER_ID INT(10),NAME VARCHAR(25),AGE INT(2),PHNO  
INT(14),BUS_ID INT);  
INSERT INTO DRIVER_INFO values(45,"MUKESH",26,8767564321,1);  
INSERT INTO DRIVER_INFO values(46,"GANESH",26,8767564329,3);  
INSERT INTO DRIVER_INFO values(47,"SURESH",26,8767564327,5);  
INSERT INTO DRIVER_INFO values(48,"RUPESH",26,8767564325,4);  
INSERT INTO DRIVER_INFO values(49,"SARVESH",26,8767564371,1);  
SELECT * FROM BUS EXCEPT SELECT * FROM DRIVER_INFO;
```



The screenshot shows a database terminal window with two panes. The left pane contains the SQL code provided above. The right pane is titled 'Output' and displays the results of the query. The results are as follows:

Row	Bus ID	Plate Number	Type
1	DK1	25	TN01
2	DK2	45	TN03
3	DK3	25	TN05
4	DK4	30	TN07
5	DK5	35	TN09

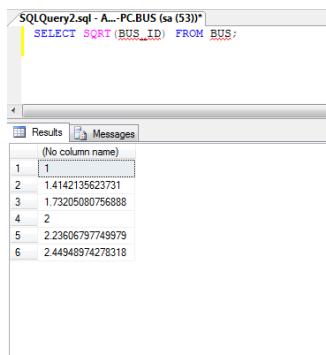
[Execution complete with exit code 0]

BUILT IN FUNCTIONS

SQRT:-

QUERY:-

```
CREATE TABLE BUS(BUS_ID INT ,BUS_NAME VARCHAR(20),CAPACITY INT,PLATE_NUM  
VARCHAR(6),BUS_TYPE VARCHAR(10))  
INSERT INTO BUS VALUES(1,'DK1',25,'TN01','AC');  
INSERT INTO BUS VALUES(2,'DK2',45,'TN03','Non-AC');  
INSERT INTO BUS VALUES(3,'DK3',25,'TN05','Non-AC');  
INSERT INTO BUS VALUES(4,'DK4',30,'TN07','AC');  
INSERT INTO BUS VALUES(5,'DK5',35,'TN09','AC');  
SELECT * FROM BUS;  
SELECT SQRT(BUS_ID) FROM BUS;
```



The screenshot shows a SQL query window titled "SQLQuery2.sql - A... PC.BUS (sa (53))". The query is:

```
SELECT SQRT(BUS_ID) FROM BUS;
```

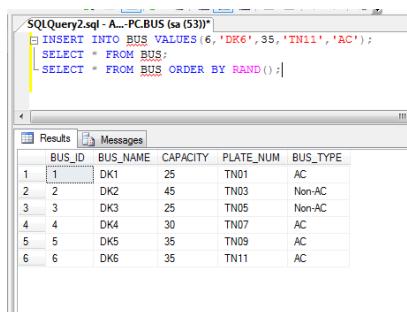
The results pane shows the output:

	(No column name)
1	1
2	1.4142135623731
3	1.73205080756888
4	2
5	2.23606797749979
6	2.44948974278318

RAND():-

QUERY:-

```
CREATE TABLE BUS(BUS_ID INT ,BUS_NAME VARCHAR(20),CAPACITY INT,PLATE_NUM  
VARCHAR(6),BUS_TYPE VARCHAR(10))  
INSERT INTO BUS VALUES(1,'DK1',25,'TN01','AC');  
INSERT INTO BUS VALUES(2,'DK2',45,'TN03','Non-AC');  
INSERT INTO BUS VALUES(3,'DK3',25,'TN05','Non-AC');  
INSERT INTO BUS VALUES(4,'DK4',30,'TN07','AC');  
INSERT INTO BUS VALUES(5,'DK5',35,'TN09','AC');  
INSERT INTO BUS VALUES(6,'DK6',35,'TN11','AC');  
SELECT * FROM BUS ORDER BY RAND();
```



The screenshot shows a SQL query window titled "SQLQuery2.sql - A... PC.BUS (sa (53))". The query is:

```
INSERT INTO BUS VALUES(6,'DK6',35,'TN11','AC');  
SELECT * FROM BUS;  
SELECT * FROM BUS ORDER BY RAND();
```

The results pane shows the output:

BUS_ID	BUS_NAME	CAPACITY	PLATE_NUM	BUS_TYPE
1	DK1	25	TN01	AC
2	DK2	45	TN03	Non-AC
3	DK3	25	TN05	Non-AC
4	DK4	30	TN07	AC
5	DK5	35	TN09	AC
6	DK6	35	TN11	AC

CONCAT():-

QUERY:-

```
CREATE TABLE BUS(BUS_ID INT ,BUS_NAME VARCHAR(20),CAPACITY INT,PLATE_NUM
VARCHAR(6),BUS_TYPE VARCHAR(10))
INSERT INTO BUS VALUES(1,'DK1',25,'TN01','AC');
INSERT INTO BUS VALUES(2,'DK2',45,'TN03','Non-AC');
INSERT INTO BUS VALUES(3,'DK3',25,'TN05','Non-AC');
INSERT INTO BUS VALUES(4,'DK4',30,'TN07','AC');
INSERT INTO BUS VALUES(5,'DK5',35,'TN09','AC');
INSERT INTO BUS VALUES(6,'DK6',35,'TN11','AC');
SELECT concat(BUS_ID,BUS_NAME) from BUS;
```

The screenshot shows the SQL Query window with the following code:

```
SQLQuery2.sql - DE...[rpagalakshmi (54)]*  X
select * from bus;
select concat(bus_id,bus_name) from bus;
select * from bus order by rand()
select concat(bus_id,bus_name) from bus;
select ascii('d')
```

The Results pane displays the output of the first two queries:

(No column name)
1 DK1
2 DK2
3 DK3
4 DK4
5 DK5
6 DK6

A message at the bottom of the results pane says "Query executed successfully."

CONCAT() -STRINGS:-

QUERY:-

```
SELECT concat('bus_id','bus_name')
```

The screenshot shows the SQL Query window with the following code:

```
SQLQuery1.sql - ADMIN-[PCa (sa (53))]*  X
select concat('bus_id','bus_name')
```

The Results pane displays the output:

(No column name)
bus_idbus_name

ASCII:-

QUERY:-

```
SELECT ASCII('d')
```

The screenshot shows the SQL Query window with the following code:

```
SQLQuery1.sql - ADMIN-[PCa (sa (53))]*  X
select ascii('d')
```

The Results pane displays the output:

(No column name)
100

CURSORS

QUERY:-

```
SELECT * from bus;
DECLARE B CURSOR FOR SELECT * FROM BUS;
OPEN B
FETCH NEXT FROM B
CLOSE B
DEALLOCATE B
```

The screenshot shows a SQL query results window. At the top, there are tabs for 'Results' and 'Messages'. Below the tabs, there is a table with four columns: 'BUS_ID', 'BUS_NAME', 'CAPACITY', and 'PLATE_NUM'. A single row of data is displayed: BUS_ID is 1, BUS_NAME is DK1, CAPACITY is 25, and PLATE_NUM is TN01. The entire table is enclosed in a light gray border. At the bottom of the window, there is a yellow bar containing the text 'Query executed successfully.' with a small green circular icon.

	BUS_ID	BUS_NAME	CAPACITY	PLATE_NUM
1	1	DK1	25	TN01

Query executed successfully.

TRIGGERS

QUERY :-

```
CREATE TABLE BUS_LOG(BUS_ID INT,ACTION VARCHAR(10),ATIME DATETIME);
SELECT * FROM BUS;
SELECT * FROM BUS_LOG;
INSERT INTO BUS VALUES(7,'DK7',37,'TN13','AC');
CREATE TRIGGER BUS_TRIGGER_INSERT ON BUS AFTER INSERT
AS
BEGIN
    INSERT INTO BUS_LOG SELECT BUS_ID,'INSERTED',GETDATE() FROM
    INSERTED
END
```

The screenshot shows the SQL Query window with the following content:

```
SQLQuery1.sql - A...PC.BUS (sa (52))*
CREATE TABLE BUS_LOG(BUS_ID INT,ACTION VARCHAR(10),ATIME DATETIME);
SELECT * FROM BUS;
SELECT * FROM BUS_LOG;
INSERT INTO BUS VALUES(7,'DK7',37,'TN13','AC');
CREATE TRIGGER BUS_TRIGGER_INSERT ON BUS AFTER INSERT
AS
BEGIN
    INSERT INTO BUS_LOG SELECT BUS_ID,'INSERTED',GETDATE() FROM
    INSERTED
END
```

Below the code, the Results tab displays the data from the BUS table:

BUS_ID	BUS_NAME	CAPACITY	PLATE_NUM	BUS_TYPE
1	DK1	25	TN01	AC
2	DK2	45	TN03	Non-AC
3	DK3	25	TN05	Non-AC
4	DK4	30	TN07	AC
5	DK5	35	TN09	AC
6	DK6	35	TN11	AC
7	DK7	37	TN13	AC
8	DK7	37	TN13	AC

The Messages tab shows the log entry:

bus_id	action	ATime
1	7	inserted

At the bottom, a message indicates the query was executed successfully.

ROLES AND PRIVILEGES

QUERY :-

CREATING USER :-

```
CREATE USER 'karpaga'@'localhost' IDENTIFIED BY 'karpaga';
```

```
mysql> CREATE USER 'karpaga'@'localhost' IDENTIFIED by 'karpaga';
Query OK, 0 rows affected (0.02 sec)
```

GRANTS FOR USER :-

```
GRANT SELECT ON BUS TO 'karpaga'@'localhost';
```

```
mysql> GRANT SELECT ON bus TO 'karpaga'@'localhost';
Query OK, 0 rows affected (0.01 sec)
```

REVOKE FOR USER :-

```
REVOKE SELECT ON BUS FROM 'karpaga'@'localhost';
```

```
mysql> REVOKE SELECT ON bus FROM  'karpaga'@'localhost';
Query OK, 0 rows affected (0.01 sec)
```

DROP USER :-

```
DROP USER 'karpaga'@'localhost';
```

```
mysql> DROP USER 'karpaga'@'localhost';
Query OK, 0 rows affected (0.00 sec)
```