

```
[21bcs048@mepcolinux join]$clear
```

```
[21bcs048@mepcolinux join]$ls
```

```
jo join.prn
```

```
[21bcs048@mepcolinux join]$cat jo
```

1.NATURAL JOIN

=====

1.NATURAL JOIN BETWEEN THE USER1 AND THE CREDITCARD TABLE.

```
select * FROM USER1 natural join CREDITCARD;
```

USERID CID	NAME CVV TYPE	PHONENO MAIL	ADHAARID LICENCENO	TID ADDRESS
303 291726	SURESH 100001 TRAVEL	9098751231 suresh@gmail.com	4587234 23676459	104 KARUR
301 29139	SRI 65453 STUDENT	9087654341 sri@gmail.com	2838501 34678262	102 MADURAI
355 311	ABI 50000 STUDENT	9800003217 abi@gmail.com	2815099 67312653	109 DPI
302 29000	BALA 11000 BUSINESS	9098754321 bala@gmail.com	6578432 45367892	105 SALEM
370 29780	VICKY 100001 STUDENT	9990003217 vicky@gmail.com	2815067 54231755	108 HARUR

NATURAL JOIN USING CONDITION

=====

PERFORM NATURAL JOIN WHEN USERID IS 301:

=====

SQL COMMAND:

```
SELECT * FROM USER1 NATURAL JOIN CREDITCARD WHERE USERID=301;
```

OUTPUT:

USERID CID	NAME CVV TYPE	PHONENO MAIL	ADHAARID	LICENCENO	TID ADDRESS
301 SRI 29132 65453 STUDENT	9087654321 sri@gmail.com	2838501	34678262	102 MADURAI	
301 SRI 29139 65453 STUDENT	9087654321 sri@gmail.com	2838501	34678262	102 MADURAI	

NATURAL JOIN USING THREE TABLES.

=====

```
SELECT * FROM USER1 NATURAL JOIN(SELECT * FROM CREDITCARD NATURAL JOIN GIFTCARD)
WHERE USERID=USERID;
```

USERID CID	NAME CVV TYPE	PHONENO MAIL	GID	AMOUNT GVALID	ADHAARID	LICENCENO	TID ADDRESS
301 SRI 29139 65453 STUDENT	9087654341 sri@gmail.com	2838501	34678262	102 MADURAI			
303 SURESH 291726 100001 TRAVEL	9098751231 suresh@gmail.com	4587234	23676459	104 KARUR			
303 SURESH 291726 100001 TRAVEL	9098751231 suresh@gmail.com	4587234	23676459	104 KARUR			
355 ABI 311 50000 STUDENT	9800003217 abi@gmail.com	2815099	67312653	109 DPI			

370 VICKY	9990003217 vicky@gmail.com	2815067	54231755	108 HARUR
29780	100001 STUDENT	530	38887	04-DEC-90

2.CARTESIAN JOIN

=====

1. CARTESIAN JOIN BETWEEN USER1 TABLE AND THE GIFTCARD TABLE.

SELECT * FROM USER1 cross join GIFTCARD;

USERID	NAME	PHONENO	MAIL	ADHAARID	LICENCENO	TID	ADDRESS
GID	USERID	AMOUNT	GVALID				
570	301	5000	07-FEB-30	2838501	34678262	102	MADURAI
570	301	5000	07-FEB-30	6578432	45367892	105	SALEM
570	301	5000	07-FEB-30	4587234	23676459	104	KARUR
570	301	5000	07-FEB-30	2815099	67312653	109	DPI

30 rows selected.

USING CONDITION CARTESIAN JOIN

=====

(1)SQL COMMAND:

```
SQL> SELECT * FROM GIFTCARD G,USER1 U WHERE G.USERID=U.USERID;
```

GID	USERID	AMOUNT	GVALID	USERID NAME	PHONENO	MAIL
ADHAARID	LICENCENO	TID	ADDRESS			
570	301	20000	07-FEB-30	301 SRI	9087654341	sri@gmail.com 2838501
34678262	102	MADURAI				
590	303	8000	04-APR-30	303 SURESH	9098751231	suresh@gmail.com
4587234	23676459	104	KARUR			
540	303	70987	09-MAY-80	303 SURESH	9098751231	suresh@gmail.com
4587234	23676459	104	KARUR			
548	355	34987	07-JAN-50	355 ABI	9800003217	abi@gmail.com
2815099	67312653	109	DPI			
530	370	38887	04-DEC-90	370 VICKY	9990003217	vicky@gmail.com
2815067	54231755	108	HARUR			

```
(2) SELECT * FROM USER1 U,GIFTCARD G;
```

USERID NAME	PHONENO	MAIL	ADHAARID	LICENCENO	TID	ADDRESS
GID	USERID	AMOUNT	GVALID			
301 SRI	9087654341	sri@gmail.com	2838501	34678262	102	MADURAI
570	301	5000	07-FEB-30			
301 SRI	9087654341	sri@gmail.com	2838501	34678262	102	MADURAI
590	303	8000	04-APR-30			
301 SRI	9087654341	sri@gmail.com	2838501	34678262	102	MADURAI
540	303	70987	09-MAY-80			
301 SRI	9087654341	sri@gmail.com	2838501	34678262	102	MADURAI
548	355	34987	07-JAN-50			

30 rows selected.

3)CROSS JOIN USING CONDITION.

SQL> select * from user1 cross join giftcard where user1.userid=giftcard.userid;

	USERID	NAME	PHONENO	MAIL	ADHAARID	LICENCENO	TID	ADDRESS
GID	USERID	AMOUNT	GVALID					
570	301	5000	07-FEB-30	301 SRI	9087654341	sri@gmail.com	2838501 34678262	102 MADURAI
590	303	8000	04-APR-30	303 SURESH	9098751231	suresh@gmail.com	4587234 23676459	104 KARUR
540	303	70987	09-MAY-80	303 SURESH	9098751231	suresh@gmail.com	4587234 23676459	104 KARUR
548	355	34987	07-JAN-50	355 ABI	9800003217	abi@gmail.com	2815099 67312653	109 DPI
530	370	38887	04-DEC-90	370 VICKY	9990003217	vicky@gmail.com	2815067 54231755	108 HARUR

3.OUTER JOIN.

=====

1.LEFT OUTER JOIN BETWEEN THE TABLES USER1 AND CREDITCARD.

SELECT * FROM USER1 U LEFT OUTER JOIN CREDITCARD C ON U.USERID=C.USERID;

OUTPUT:

=====

USERID	NAME	PHONENO	MAIL	ADHAARID	LICENCENO	TID	ADDRESS
CID	CVV	USERID	TYPE				
303	SURESH	9098751231	suresh@gmail.com	4587234	23676459	104	KARUR
291726	100001	303	TRAVEL				
301	SRI	9087654341	sri@gmail.com	2838501	34678262	102	MADURAI
29139	65453	301	STUDENT				
355	ABI	9800003217	abi@gmail.com	2815099	67312653	109	DPI
311	50000	355	STUDENT				
302	BALA	9098754321	bala@gmail.com	6578432	45367892	105	SALEM
29000	11000	302	BUSINESS				
370	VICKY	9990003217	vicky@gmail.com	2815067	54231755	108	HARUR
29780	100001	370	STUDENT				
330	PRABU	9991103217	prabu@gmail.com	2812367	87242751	107	CHENNAI

6 rows selected.

LEFT OUTER JOIN USING CONDITION:

=====

DISPLAY THE DETAILS OF THE USERID WHOSE AMOUNT IS GREATER THAN THE 20000 RUPEES.

```

SELECT U.USERID AS
U_USERID,NAME,PHONENO,MAIL,ADHAARID,LICENCENO,TID,ADDRESS,G.USERID AS
G_USERID,GID,AMOUNT GVALID FROM USER1 U LEFT OUTER JOIN GIFTCARD G ON
U.USERID=G.USERID WHERE AMOUNT>20000;

```

U_USERID	NAME	PHONENO	MAIL	ADHAARID	LICENCENO	TID	ADDRESS
G_USERID	GID	GVALID					
303	SURESH	9098751231	suresh@gmail.com	4587234	23676459	104	KARUR
303	540	70987					
355	ABI	9800003217	abi@gmail.com	2815099	67312653	109	DPI
355	548	34987					

370 VICKY	9990003217 vicky@gmail.com	2815067	54231755	108 HARUR
370 530 38887				

2.RIGHT OUTER JOIN BETWEEN THE TABLES USER1 AND GIFTCARD.

SELECT * FROM USER1 U RIGHT OUTER JOIN GIFTCARD G ON U.USERID=G.USERID;

USERID NAME	PHONENO MAIL	ADHAARID	LICENCENO	TID ADDRESS
GID USERID	AMOUNT GVALID			
301 SRI	9087654341 sri@gmail.com	2838501	34678262	102 MADURAI
570 301	20000 07-FEB-30			
303 SURESH	9098751231 suresh@gmail.com	4587234	23676459	104 KARUR
590 303	8000 04-APR-30			
303 SURESH	9098751231 suresh@gmail.com	4587234	23676459	104 KARUR
540 303	70987 09-MAY-80			
355 ABI	9800003217 abi@gmail.com	2815099	67312653	109 DPI
548 355	34987 07-JAN-50			
370 VICKY	9990003217 vicky@gmail.com	2815067	54231755	108 HARUR
530 370	38887 04-DEC-90			

RIGHT OUTER JOIN USING CONDITION:

=====

DISPLAY THE DETAILS OF THE USER WHO IS HAVE TYPE TRAVEL.

SELECT U.USERID AS
U_USERID,NAME,PHONENO,MAIL,ADHAARID,LICENCENO,TID,ADDRESS,G.USERID AS
G_USERID,CID,CVV,TYPE FROM USER1 U RIGHT OUTER JOIN CREDITCARD G ON U.USERID=G.USERID
WHERE TYPE='TRAVEL';

U_USERID	NAME	PHONENO	MAIL	ADHAARID	LICENCENO	TID	ADDRESS
----------	------	---------	------	----------	-----------	-----	---------

303	SURESH	9098751231	suresh@gmail.com	4587234	23676459	104	KARUR
303	291726	100001	TRAVEL				

3.FULL OUTER JOIN BETWEEN USER1 AND THE CREDITCARD TABLE.

```
SELECT NAME,PHONENO,MAIL,ADHAARID,LICENCENO,TID,ADDRESS,U.USERID AS
U_USERID,C.USERID AS C_USERID FROM USER1 U FULL OUTER JOIN CREDITCARD C ON
U.USERID=C.USERID;
```

NAME	PHONENO	MAIL	ADHAARID	LICENCENO	TID	ADDRESS
------	---------	------	----------	-----------	-----	---------

U_USERID	C_USERID
----------	----------

SURESH	9098751231	suresh@gmail.com	4587234	23676459	104	KARUR
303	303					

SRI	9087654341	sri@gmail.com	2838501	34678262	102	MADURAI
301	301					

ABI	9800003217	abi@gmail.com	2815099	67312653	109	DPI
355	355					

BALA	9098754321	bala@gmail.com	6578432	45367892	105	SALEM
302	302					

VICKY	9990003217	vicky@gmail.com	2815067	54231755	108	HARUR
370	370					

PRABU	9991103217	prabu@gmail.com	2812367	87242751	107	CHENNAI
330						

6 rows selected.

FULL OUTER JOIN USING CONDITION:

=====

DISPLAY THE USER DETAILS WHO HAS THE CVV 65453.

```
SELECT U.USERID AS
U_USERID,NAME,PHONENO,MAIL,ADHAARID,LICENCENO,TID,ADDRESS,G.USERID AS
G_USERID,CID,CVV,TYPE FROM USER1 U FULL OUTER JOIN CREDITCARD G ON U.USERID=G.USERID
WHERE CVV=65453;
```

U_USERID	NAME	PHONENO	MAIL	ADHAARID	LICENCENO	TID	ADDRESS
G_USERID	CID	CVV	TYPE				

301	SRI	9087654341	sri@gmail.com	2838501	34678262	102	MADURAI
301	29139	65453	STUDENT				

4.INNER JOIN

=====

```
SQL> SELECT * FROM USER1 INNER JOIN CREDITCARD ON USER1.USERID=CREDITCARD.CID;
```

OUTPUT:

USERID	NAME	PHONENO	MAIL	ADHAARID	LICENCENO	TID	ADDRESS
CID	CVV	USERID	TYPE				

303	SURESH	9098751231	suresh@gmail.com	4587234	23676459	104	KARUR
291726	100001	303	TRAVEL				

301	SRI	9087654341	sri@gmail.com	2838501	34678262	102	MADURAI
29139	65453	301	STUDENT				

355	ABI	9800003217	abi@gmail.com	2815099	67312653	109	DPI
311	50000	355	STUDENT				

302	BALA	9098754321	bala@gmail.com	6578432	45367892	105	SALEM
29000	11000	302	BUSINESS				

370	VICKY	9990003217	vicky@gmail.com	2815067	54231755	108	HARUR
29780	100001	370	STUDENT				

INNER JOIN USING CONDITION:

=====

1)DISPLAY THE DETAILS OF THE USER WHOSE GID IS GREATER THAN THE 550.

```
SELECT U.USERID AS
U_USERID,NAME,PHONENO,MAIL,ADHAARID,LICENCENO,TID,ADDRESS,G.USERID AS
G_USERID,GID,AMOUNT GVALID FROM USER1 U INNER JOIN GIFTCARD G ON U.USERID=G.USERID
AND GID>550;
```

U_USERID	NAME	PHONENO	MAIL	ADHAARID	LICENCENO	TID	ADDRESS
G_USERID	GID	GVALID					

301	SRI	9087654341	sri@gmail.com	2838501	34678262	102	MADURAI
301	570	20000					
303	SURESH	9098751231	suresh@gmail.com	4587234	23676459	104	KARUR
303	590	8000					

SELF JOIN

=====

1)DISPLAY THE DETAILS OF THE USER1 FIELDS USERID,NAME,MAIL AND ADDRESS.

SQL COMMAND:

```
SELECT U.USERID USERID,U.NAME UNAME,C.MAIL CMAIL,C.ADDRESS CADDRESS FROM USER1 U
INNER JOIN USER1 C ON U.MAIL=C.MAIL;
```

USERID	UNAME	CMAIL	CADDRESS
--------	-------	-------	----------

301	SRI	sri@gmail.com	MADURAI
302	BALA	bala@gmail.com	SALEM

303 SURESH	suresh@gmail.com	KARUR
355 ABI	abi@gmail.com	DPI
370 VICKY	vicky@gmail.com	HARUR
330 PRABU	prabu@gmail.com	CHENNAI

6 rows selected.

SET OPERATIONS

=====

1.UNION OPERATION.

=====

1)DISPLAY THE PERSON WHO ARE HAVING BOTH USERID AND THE GIFTCARD.

SQL> (SELECT USERID FROM USER1)UNION(SELECT USERID FROM GIFTCARD);

USERID

301

302

303

330

340

355

370

7 rows selected.

2)DISPLAY THE PHONENO WHOSE USERID IS GREATER THAN THE 300 AND TID IS GREATER THAN 100.

```
SQL> (SELECT PHONENO FROM USER1 WHERE TID>100)UNION(SELECT PHONENO FROM USER1  
WHERE USERID>300);
```

PHONENO

9087654341

9098754321

9098751231

9800003217

9990003217

9991103217

7 rows selected.

3)DISPLAY THE GID WHO HAS HAVE GIFTCARD AND THE CREDITCARD.

```
(SELECT GID FROM GIFTCARD)UNION ALL(SELECT USERID FROM CREDITCARD);
```

GID

530

540

548

570

590

303

301

355

302

370

10 rows selected.

2.INTERSECTION OPERATION.

=====

1)DISPLAY THE USERID WHO HAS A GIFTCARD.

(SELECT USERID FROM USER1)INTERSECT(SELECT USERID FROM GIFTCARD);

USERID

301

302

303

2)DISPLAY USERID WHO BOTH THE AMOUNT GREATER THAN 10000 AND THE TYPE IS THE STUDENT.

(SELECT USERID FROM GIFTCARD WHERE AMOUNT>10000)INTERSECT ALL (SELECT USERID FROM CREDITCARD WHERE TYPE='STUDENT');

USERID

370

355

3.EXCEPT OPERATION.

=====

1)DISPLAY THE USERID WHO HAS NOT HAVE A NAME SRI AND NOT TID AS 102.

```
(select userid from user1)except(select userid from user1 where name='SRI' and tid=102);
```

USERID

302

303

330

340

355

370

6 rows selected.

2)DISPLAY THE GID WHO HAS NOT HAVE A USERID 301.

```
(SELECT GID FROM GIFTCARD)EXCEPT ALL(SELECT GID FROM GIFTCARD WHERE USERID=301);
```

GID

505

506

509

515