

15IT302J-DATABASE MANAGEMENT SYSTEMS

DATE:-11/8/19

EXPERIMENT-3

NAME:- NANDISH SHAH

REG NO:-RA1711008010143

4. SUBQUERIES WITH SET OPERATION, JOIN AND CONSTRAINTS

1.FIND THE AVERAGE BALANCE FOR EACH CUSTOMER WHO LIVES IN MADURAI AND HAS AT LEAST THREE ACCOUNT.

```
SQL> select depositor.customer_name, avg(balance) from depositor, account, customer where
depositor.account_no = account.account_no and depositor.customer_name =
customer.customer_name and customer_city = 'mardurai' group by depositor.customer_name
having count(distinct depositor.account_no)>=2;
```

CUSTOMER_NAME	AVG(BALANCE)
---------------	--------------

aditya	4750
--------	------

2. FIND THE AVERAGE LOAN AMOUNT OF EACH CUSTOMER WHO LIVES IN MADURAI AND HAS AT LEAST TWO LOANS.

```
SQL> select borrower.customer_name, avg(amount) from borrower, loan, customer where
borrower.loan_no=loan.loan_no and borrower.customer_name=customer.customer_name and
customer_city='mardurai' group by borrower.customer_name having count(distinct
borrower.loan_no)>=2;
```

CUSTOMER_NAME	AVG(AMOUNT)
---------------	-------------

aditya	22500
--------	-------

SET MEMBERSHIP:

USING KEYWORD IN:

3.FIND THE CUSTOMER WHO LIVES IN CHENNAI OR MADURAI.

```
SQL> select customer_name from customer where customer_city in ('trichy','mardurai');
```

CUSTOMER_NAME

aditya

15IT302J-DATABASE MANAGEMENT SYSTEMS

DATE:-11/8/19

EXPERIMENT-3

NAME:- NANDISH SHAH

REG NO:-RA1711008010143

4. SUBQUERIES WITH SET OPERATION, JOIN AND CONSTRAINTS

ankit

atif

akshit

akshil

anshul

freya

faizan

8 rows selected.

4.FIND THE ACCOUNT NUMBER WHOSE BALANCE IS BETWEEN 1000 AND 5000.

SQL> select account_no from account where balance between 1000 and 5000;

ACCOUNT_NO

10001

10002

10003

10004

10005

10006

10007

10008

10009

10011

10012

ACCOUNT_NO

10013

12 rows selected.

5. FIND THE ACCOUNT NUMBER WHOSE BALANCE IS NOT BETWEEN 1000 AN 5000.

15IT302J-DATABASE MANAGEMENT SYSTEMS

DATE:-11/8/19

EXPERIMENT-3

NAME:- NANDISH SHAH

REG NO:-RA1711008010143

4. SUBQUERIES WITH SET OPERATION, JOIN AND CONSTRAINTS

SQL> select account_no from account where balance not between 1000 and 5000;

ACCOUNT_NO

10010

6. FIND THE CUSTOMER WHO HAS LOAN AND ACCOUNT.

SQL> select distinct customer_name from borrower where customer_name in(select customer_name from depositor);

CUSTOMER_NAME

atif

kadam

namya

aman

ankit

aditya

nitya

7 rows selected.

7. FIND ALL CUSTOMERS WHO HAVE BOTH AN ACCOUNT AND LOAN AT icici BANK

select customer_name from borrower,loan where borrower.loan_no=loan.loan_no and branch_name='icici' and (branch_name,customer_name) in (select branch_name, customer_name from depositor, account where depositor.account_no=account.account_no);

no rows selected

15IT302J-DATABASE MANAGEMENT SYSTEMS

DATE:-11/8/19

EXPERIMENT-3

NAME:- NANDISH SHAH

REG NO:-RA1711008010143

4. SUBQUERIES WITH SET OPERATION, JOIN AND CONSTRAINTS

8. FIND ALL CUSTOMERS WHO DO HAVE LOAN AT THE BANK, BUT DO NOT HAVE AN ACCOUNT AT the bank.

SQL> select distinct customer_name from borrower where customer_name not in(select customer_name from depositor);

CUSTOMER_NAME

raju

atif

nitya

ankit

namya

ramesh

shweta

aman

kadam

kartik

rakesh

CUSTOMER_NAME

ankita

12 rows selected.

9. FIND ALL CUSTOMERS WHO DO HAVE ACCOUNT AT THE BANK BUT DO NOT HAVE LOAN AT THE bank.

15IT302J-DATABASE MANAGEMENT SYSTEMS

DATE:-11/8/19

EXPERIMENT-3

NAME:- NANDISH SHAH

REG NO:-RA1711008010143

4. SUBQUERIES WITH SET OPERATION, JOIN AND CONSTRAINTS

SQL> select distinct customer_name from depositor where customer_name not in(select customer_name from borrower);

CUSTOMER_NAME

amish

akshit

shwet

atif

akshil

namya

kadam

freya

aman

ankit

aditya

CUSTOMER_NAME

manish

faizaan

astha

nitya

anshul

16 rows selected.

10. FIND ALL ACCOUNT HOLDER NAME EXCEPT ADITYA AND KADAM

15IT302J-DATABASE MANAGEMENT SYSTEMS

DATE:-11/8/19

EXPERIMENT-3

NAME:- NANDISH SHAH

REG NO:-RA1711008010143

4. SUBQUERIES WITH SET OPERATION, JOIN AND CONSTRAINTS

SQL> select distinct customer_name from depositor where customer_name not in('aditya','kadam');

CUSTOMER_NAME

aditya

akshil

akshit

aman

amish

ankit

anshul

astha

atif

faizaan

freya

CUSTOMER_NAME

kadam

manish

namya

nitya

shwet

16 rows selected.

15IT302J-DATABASE MANAGEMENT SYSTEMS

DATE:-11/8/19

EXPERIMENT-3

NAME:- NANDISH SHAH

REG NO:-RA1711008010143

4. SUBQUERIES WITH SET OPERATION, JOIN AND CONSTRAINTS

SET COMPARAISON:

11. FIND THE NAMES OF ALL BRANCHES THAT HAVE ASSETS GREATER THAN

THOSE OF AT LEAT ONE BRANCH LOCATED IN SALEM.

SQL> select distinct t.branch_name from branch t, branch s where t.assets>s.assets and s.branch_city='salem';

BRANCH_NAME

iob

sbi

pnb

12. FIND THE NAMES OF ALL BRANCHES THAT HAVE ASSETS GREATER THAN

THOSE OF AT LEAT ONE BRANCH LOCATED IN MADURAI USING 'SOME' KEYWORD

SQL> select branch_name from branch where assets>some(select assets from branch where branch_city='mardurai');

BRANCH_NAME

pnb

sbi

iob

13. FIND THE NAMES OF ALL BRANCHES THAT HAVE AN ASSET VALUE GREATER THAN THAT OF EACH BRANCH IN MADURAI

SQL> select branch_name from branch where assets>all(select assets from branch where branch_city='mardurai');

BRANCH_NAME

15IT302J-DATABASE MANAGEMENT SYSTEMS

DATE:-11/8/19

EXPERIMENT-3

NAME:- NANDISH SHAH

REG NO:-RA1711008010143

4. SUBQUERIES WITH SET OPERATION, JOIN AND CONSTRAINTS

iob

pnb

sbi

14.FIND THE BRANCH THAT HAS THE HIGHEST AVERAGE BALANCE.

SQL> select branch_name from account group by branch_name having avg(balance)>=all (select avg(balance)from account group by branch_name);

BRANCH_NAME

Sbi

15. FIND THE BRANCH THAT HAS THE HIGHEST AVERAGE BALANCE.

SQL> select branch_name,avg(balance) from account group by branch_name having avg(balance)<=all(select avg(balance) from account group by branch_name);

BRANCH_NAME AVG(BALANCE)

hdfc 3000

TEST FOR EMPTY RELATION:

16. FIND ALL CUSTOMERS WHO HAVE BOTH AN ACCOUNT AND LOAN AT THE BANK

SQL> select customer_name from borrower where exists(select * from depositor where depositor.customer_name=borrower.customer_name);

CUSTOMER_NAME

aditya

Aditya

15IT302J-DATABASE MANAGEMENT SYSTEMS

DATE:-11/8/19

EXPERIMENT-3

NAME:- NANDISH SHAH

REG NO:-RA1711008010143

4. SUBQUERIES WITH SET OPERATION, JOIN AND CONSTRAINTS

17.FIND ALL CUSTOMERS WHO DO NOT HAVE BOTH AN ACCOUNT AND LOAN AT THE BANK

```
SQL> select customer_name from borrower where not exists(select * from depositor where  
depositor.customer_name=borrower.customer_name);
```

CUSTOMER_NAME

kadam

kartik

rakesh

raju

ankita

namya

atif

nitya

shweta

ramesh

ankit

CUSTOMER_NAME

aman

12 rows selected.

18. FIND ALL CUSTOMERS WHO HAVE AN ACCOUNT AT ALL BRANCHES LOCATED IN MADURAI

```
SQL> select distinct s.customer_name from depositor s where not exists((select branch_name from  
branch where branch_city='sbi')minus(select r.branch_name from depositor t ,account r where  
t.account_no=r.account_no and s.customer_name=t.customer_name));
```

15IT302J-DATABASE MANAGEMENT SYSTEMS

DATE:-11/8/19

EXPERIMENT-3

NAME:- NANDISH SHAH

REG NO:-RA1711008010143

4. SUBQUERIES WITH SET OPERATION, JOIN AND CONSTRAINTS

CUSTOMER_NAME

aditya

VIEWS:

19. CREATE A VIEW ALLCUSTOMER WITH ACCOUNT AND LOAN DETAILS.

SQL> create view allcustomer as(select branch_name,customer_name

2 from depositor,account where

3 depositor.account_no=account.account_no) union(select branch_name,customer_name from
borrower,loan where borrower.loan_no=loan.loan_no);

View created.

SQL> select * from allcustomer;

BRANCH_NAME	CUSTOMER_NAME
-------------	---------------

hsbc	aditya
------	--------

hsbc	kadam
------	-------

hsbc	namya
------	-------

hsbc	rakesh
------	--------

icici	aditya
-------	--------

icici	aman
-------	------

icici	ramesh
-------	--------

icici	shweta
-------	--------

iob	ankit
-----	-------

iob	raju
-----	------

15IT302J-DATABASE MANAGEMENT SYSTEMS

DATE:-11/8/19

EXPERIMENT-3

NAME:- NANDISH SHAH

REG NO:-RA1711008010143

4. SUBQUERIES WITH SET OPERATION, JOIN AND CONSTRAINTS

pnb ankita

BRANCH_NAME	CUSTOMER_NAME
-------------	---------------

pnb	atif
-----	------

pnb	nitya
-----	-------

sbi	aditya
-----	--------

14 rows selected.

20. CREATE A VIEW BRTOT WITH BRANCH NAME AND LOAN AMOUNT IN SORTED LOAN AMOUNT AND CLUSTERED BASED ON BRANCH NAME.

SQL> create view brtot(branch_name,totloan)as select

2 branch_name,sum(amount)from loan group by branch_name;

View created.

SQL> select * from brtot;

BRANCH_NAME	TOTLOAN
-------------	---------

hsbc	45000
------	-------

iob	55000
-----	-------

icici	80000
-------	-------

pnb	30000
-----	-------

UPDATE:

21. UPDATE THE BALANCE BY CREDIT CASH GIFT 100 FOR ALL.

15IT302J-DATABASE MANAGEMENT SYSTEMS

DATE:-11/8/19

EXPERIMENT-3

NAME:- NANDISH SHAH

REG NO:-RA1711008010143

4. SUBQUERIES WITH SET OPERATION, JOIN AND CONSTRAINTS

SQL> update account set balance=balance+100;

14 rows updated.

SQL> select * from account;

ACCOUNT_NO	BRANCH_NAME	BALANCE
------------	-------------	---------

10001	icici	1100
10002	sbi	1600
10003	hdfc	2100
10004	hsbc	2600
10005	icici	3100
10006	sbi	3600
10007	hdfc	4100
10008	hsbc	4600
10009	icici	5100
10010	sbi	5600
10011	sbi	5100

ACCOUNT_NO	BRANCH_NAME	BALANCE
------------	-------------	---------

10012	hsbc	4600
10013	icici	3400
10015	sbi	

14 rows selected.

15IT302J-DATABASE MANAGEMENT SYSTEMS

DATE:-11/8/19

EXPERIMENT-3

NAME:- NANDISH SHAH

REG NO:-RA1711008010143

4. SUBQUERIES WITH SET OPERATION, JOIN AND CONSTRAINTS

22. UPDATE THE BALANCE WITH BALANCE *1.05.

13 rows updated.

SQL> select * from account;

ACCOUNT_NO	BRANCH_NAME	BALANCE
------------	-------------	---------

10001	icici	1155
10002	sbi	1680
10003	hdfc	2205
10004	hsbc	2730
10005	icici	3255
10006	sbi	3780
10007	hdfc	4305
10008	hsbc	4830
10009	icici	5355
10010	sbi	5880
10011	sbi	5355

ACCOUNT_NO	BRANCH_NAME	BALANCE
------------	-------------	---------

10012	hsbc	4830
10013	icici	3570
10015	sbi	

14 rows selected.

15IT302J-DATABASE MANAGEMENT SYSTEMS

DATE:-11/8/19

EXPERIMENT-3

NAME:- NANDISH SHAH

REG NO:-RA1711008010143

4. SUBQUERIES WITH SET OPERATION, JOIN AND CONSTRAINTS

23. UPDATE THE BALANCE OF ACCOUNT WITH BALANCE *1.06 WHO MAINTAINS BALANCE GREATER THAN AVERAGE BALANCE.

SQL> update account set balance=balance*1.06where balance>(select

2

SQL> update account set balance=balance*1.06where balance>=(select avg(balance) from account);

7 rows updated.

SQL> select * from account;

ACCOUNT_NO	BRANCH_NAME	BALANCE
------------	-------------	---------

10001	icici	1155
10002	sbi	1680
10003	hdfc	2205
10004	hsbc	2730
10005	icici	3255
10006	sbi	4006.8
10007	hdfc	4563.3
10008	hsbc	5119.8
10009	icici	5676.3
10010	sbi	6232.8
10011	sbi	5676.3

ACCOUNT_NO	BRANCH_NAME	BALANCE
------------	-------------	---------

15IT302J-DATABASE MANAGEMENT SYSTEMS

DATE:-11/8/19

EXPERIMENT-3

NAME:- NANDISH SHAH

REG NO:-RA1711008010143

4. SUBQUERIES WITH SET OPERATION, JOIN AND CONSTRAINTS

10012 hsbc 5119.8

10013 icici 3570

10015 sbi

14 rows selected.

24. UPDATE THE ACCOUNT BALANCE WITH FOLLOWING CONDITION

o IF BALANCE GRETER THAN 2000 WITH INTEREST 30%

o IF BALANCE IN BETWEEN 1000 AND 2000 WITH INTEREST 10%

o IF BALANCE IN BETWEEN 500 AND 1000 WITH INTEREST 5%

o OTHERS WITH 1% INTEREST.

SQL> select * from account;

ACCOUNT_NO	BRANCH_NAME	BALANCE
------------	-------------	---------

10001	icici	1155
-------	-------	------

10002	sbi	1680
-------	-----	------

10003	hdfc	2205
-------	------	------

10004	hsbc	2730
-------	------	------

10005	icici	3255
-------	-------	------

10006	sbi	4006.8
-------	-----	--------

10007	hdfc	4563.3
-------	------	--------

10008	hsbc	5119.8
-------	------	--------

10009	icici	5676.3
-------	-------	--------

10010	sbi	6232.8
-------	-----	--------

10011	sbi	5676.3
-------	-----	--------

15IT302J-DATABASE MANAGEMENT SYSTEMS

DATE:-11/8/19

EXPERIMENT-3

NAME:- NANDISH SHAH

REG NO:-RA1711008010143

4. SUBQUERIES WITH SET OPERATION, JOIN AND CONSTRAINTS

ACCOUNT_NO	BRANCH_NAME	BALANCE
------------	-------------	---------

10012	hsbc	5119.8
-------	------	--------

10013	icici	3570
-------	-------	------

10015	sbi	
-------	-----	--

14 rows selected.

```
SQL> update account set balance=case when balance>=500 and balance<=1000 then balance*0.05
when balance>=1000 and balance<=2000 then balance * 0.10 when balance>2000 then balance*0.3
else balance*0.01 end;
```

14 rows updated.

```
SQL> select *from account;
```

ACCOUNT_NO	BRANCH_NAME	BALANCE
------------	-------------	---------

10001	icici	115.5
-------	-------	-------

10002	sbi	168
-------	-----	-----

10003	hdfc	661.5
-------	------	-------

10004	hsbc	819
-------	------	-----

10005	icici	976.5
-------	-------	-------

10006	sbi	1202.04
-------	-----	---------

10007	hdfc	1368.99
-------	------	---------

10008	hsbc	1535.94
-------	------	---------

10009	icici	1702.89
-------	-------	---------

10010	sbi	1869.84
-------	-----	---------

15IT302J-DATABASE MANAGEMENT SYSTEMS

DATE:-11/8/19

EXPERIMENT-3

NAME:- NANDISH SHAH

REG NO:-RA1711008010143

4. SUBQUERIES WITH SET OPERATION, JOIN AND CONSTRAINTS

10011 sbi 1702.89

ACCOUNT_NO BRANCH_NAME BALANCE

10012 hsbc 1535.94

10013 icici 1071

10015 sbi

14 rows selected.

JOIN:

CARTESIAN JOIN:

25. DISPLAY ALL RECORDS OF ACCOUNT WITH BRANCH DETAILS.

SQL> select account.account_no,account.balance, branch.branch_name, branch.branch_city, branch.assets from account,branch where account.branch_name=branch.branch_name;

ACCOUNT_NO BALANCE BRANCH_NAME BRANCH_CITY ASSETS

10007 1368.99 hdfc salem 40000

10003 661.5 hdfc salem 40000

10008 1535.94 hsbc ahemdabad 40000

10012 1535.94 hsbc ahemdabad 40000

10004 819 hsbc ahemdabad 40000

10009 1702.89 icici mardurai 40000

10005 976.5 icici mardurai 40000

10001 115.5 icici mardurai 40000

10013 1071 icici mardurai 40000

15IT302J-DATABASE MANAGEMENT SYSTEMS

DATE:-11/8/19

EXPERIMENT-3

NAME:- NANDISH SHAH

REG NO:-RA1711008010143

4. SUBQUERIES WITH SET OPERATION, JOIN AND CONSTRAINTS

10002	168 sbi	trichy	80000
10011	1702.89 sbi	trichy	80000

ACCOUNT_NO	BALANCE	BRANCH_NAME	BRANCH_CITY	ASSETS
10015	sbi	trichy	80000	
10006	1202.04 sbi	trichy	80000	
10010	1869.84 sbi	trichy	80000	

14 rows selected.

NATURAL JOIN:

26. DISPLAY ALL ACCOUNT DETAILS ALONG WITH BRANCH USING NATURAL JOIN.

SQL> select a.account_no, a.branch_name, b.branch_name, b.branch_city from account a, branch b
where a.branch_name = b.branch_name;

ACCOUNT_NO	BRANCH_NAME	BRANCH_NAME	BRANCH_CITY
10007	hdfc	hdfc	salem
10003	hdfc	hdfc	salem
10008	hsbc	hsbc	ahemdabad
10012	hsbc	hsbc	ahemdabad
10004	hsbc	hsbc	ahemdabad
10009	icici	icici	mardurai
10005	icici	icici	mardurai
10001	icici	icici	mardurai
10013	icici	icici	mardurai

15IT302J-DATABASE MANAGEMENT SYSTEMS

DATE:-11/8/19

EXPERIMENT-3

NAME:- NANDISH SHAH

REG NO:-RA1711008010143

4. SUBQUERIES WITH SET OPERATION, JOIN AND CONSTRAINTS

10002 sbi sbi trichy

10011 sbi sbi trichy

ACCOUNT_NO BRANCH_NAME BRANCH_NAME BRANCH_CITY

10015 sbi sbi trichy

10006 sbi sbi trichy

10010 sbi sbi trichy

14 rows selected.

LEFT OUTER JOIN:

27. FIND ALL ACCOUNT NUMBER WITH BRANCH DETAILS

SQL> select a.account_no, a.branch_name, b.branch_name,b.branch_city from account a,branch b
where a.branch_name(+) = b.branch_name;

ACCOUNT_NO BRANCH_NAME BRANCH_NAME BRANCH_CITY

10007 hdfc hdfc salem

10003 hdfc hdfc salem

10008 hsbc hsbc ahemdabad

10012 hsbc hsbc ahemdabad

10004 hsbc hsbc ahemdabad

10009 icici icici mardurai

10005 icici icici mardurai

10001 icici icici mardurai

10013 icici icici mardurai

15IT302J-DATABASE MANAGEMENT SYSTEMS

DATE:-11/8/19

EXPERIMENT-3

NAME:- NANDISH SHAH

REG NO:-RA1711008010143

4. SUBQUERIES WITH SET OPERATION, JOIN AND CONSTRAINTS

job chennai
pnb mumbai

ACCOUNT_NO BRANCH_NAME BRANCH_NAME BRANCH_CITY

10002 sbi sbi trichy
10011 sbi sbi trichy
10015 sbi sbi trichy
10006 sbi sbi trichy
10010 sbi sbi trichy

16 rows selected.

SQL> select account.account_no, account.branch_name, branch.branch_name, branch.branch_city
from account left outer join branch on account.branch_name=branch.branch_name;

ACCOUNT_NO BRANCH_NAME BRANCH_NAME BRANCH_CITY

10013 icici icici mardurai
10009 icici icici mardurai
10005 icici icici mardurai
10001 icici icici mardurai
10015 sbi sbi trichy
10011 sbi sbi trichy
10010 sbi sbi trichy
10006 sbi sbi trichy

15IT302J-DATABASE MANAGEMENT SYSTEMS

DATE:-11/8/19

EXPERIMENT-3

NAME:- NANDISH SHAH

REG NO:-RA1711008010143

4. SUBQUERIES WITH SET OPERATION, JOIN AND CONSTRAINTS

10002	sbi	sbi	trichy
10007	hdfc	hdfc	salem
10003	hdfc	hdfc	salem

ACCOUNT_NO	BRANCH_NAME	BRANCH_NAME	BRANCH_CITY
------------	-------------	-------------	-------------

10012	hsbc	hsbc	ahemdabad
10008	hsbc	hsbc	ahemdabad
10004	hsbc	hsbc	ahemdabad

14 rows selected.

RIGHT OUTER JOIN:

28. FIND ALL ACCOUNT NUMBER WITH BRANCH DETAILS.

SQL> select a.account_no, a.branch_name, b.branch_name, b.branch_city from account a, branch b
where a.branch_name = b.branch_name (+);

ACCOUNT_NO	BRANCH_NAME	BRANCH_NAME	BRANCH_CITY
------------	-------------	-------------	-------------

10013	icici	icici	mardurai
10009	icici	icici	mardurai
10005	icici	icici	mardurai
10001	icici	icici	mardurai
10015	sbi	sbi	trichy
10011	sbi	sbi	trichy
10010	sbi	sbi	trichy
10006	sbi	sbi	trichy

15IT302J-DATABASE MANAGEMENT SYSTEMS

DATE:-11/8/19

EXPERIMENT-3

NAME:- NANDISH SHAH

REG NO:-RA17111008010143

4. SUBQUERIES WITH SET OPERATION, JOIN AND CONSTRAINTS

```
10002  sbi      sbi      trichy
10007  hdfc     hdfc     salem
10003  hdfc     hdfc     salem
```

```
ACCOUNT_NO BRANCH_NAME  BRANCH_NAME  BRANCH_CITY
-----
```

```
10012  hsbc     hsbc     ahemdabad
10008  hsbc     hsbc     ahemdabad
10004  hsbc     hsbc     ahemdabad
```

14 rows selected.

```
SQL> select account.account_no, account.branch_name,
2  branch.branch_name, branch.branch_city from account right outer
3  join branch on account.branch_name=branch.branch_name;
```

```
ACCOUNT_NO BRANCH_NAME  BRANCH_NAME  BRANCH_CITY
-----
```

```
10007  hdfc     hdfc     salem
10003  hdfc     hdfc     salem
10008  hsbc     hsbc     ahemdabad
10012  hsbc     hsbc     ahemdabad
10004  hsbc     hsbc     ahemdabad
10009  icici    icici    mardurai
10005  icici    icici    mardurai
10001  icici    icici    mardurai
```

15IT302J-DATABASE MANAGEMENT SYSTEMS

DATE:-11/8/19

EXPERIMENT-3

NAME:- NANDISH SHAH

REG NO:-RA1711008010143

4. SUBQUERIES WITH SET OPERATION, JOIN AND CONSTRAINTS

```
10013  icici      icici      mardurai
        iob       chennai
        pnb       mumbai
```

```
ACCOUNT_NO BRANCH_NAME  BRANCH_NAME  BRANCH_CITY
```

```
10002  sbi       sbi       trichy
10011  sbi       sbi       trichy
10015  sbi       sbi       trichy
10006  sbi       sbi       trichy
10010  sbi       sbi       trichy
```

16 rows selected.

NATURAL LEFT OUTER JOIN:

29. FIND ALL ACCOUNT NO WITH BRANCH DETAILS.

SQL> select * from account natural left outer join branch;

```
BRANCH_NAME  ACCOUNT_NO  BALANCE BRANCH_CITY  ASSETS
-----
icici        10013      1071 mardurai      40000
icici        10009      1702.89 mardurai    40000
icici        10005      976.5 mardurai      40000
icici        10001      115.5 mardurai      40000
sbi          10015              trichy      80000
sbi          10011      1702.89 trichy      80000
sbi          10010      1869.84 trichy      80000
```

15IT302J-DATABASE MANAGEMENT SYSTEMS

DATE:-11/8/19

EXPERIMENT-3

NAME:- NANDISH SHAH

REG NO:-RA1711008010143

4. SUBQUERIES WITH SET OPERATION, JOIN AND CONSTRAINTS

sbi	10006	1202.04 trichy	80000
sbi	10002	168 trichy	80000
hdfc	10007	1368.99 salem	40000
hdfc	10003	661.5 salem	40000

BRANCH_NAME	ACCOUNT_NO	BALANCE	BRANCH_CITY	ASSETS
hsbc	10012	1535.94	ahemdabad	40000
hsbc	10008	1535.94	ahemdabad	40000
hsbc	10004	819	ahemdabad	40000

14 rows selected.

NATURAL RIGHT OUTER JOIN:

30. FIND ALL ACCOUNT NO WITH BRANCH DETAILS.

SQL> select * from account natural left outer join branch;

BRANCH_NAME	ACCOUNT_NO	BALANCE	BRANCH_CITY	ASSETS
icici	10013	1071	mardurai	40000
icici	10009	1702.89	mardurai	40000
icici	10005	976.5	mardurai	40000
icici	10001	115.5	mardurai	40000
sbi	10015		trichy	80000
sbi	10011	1702.89	trichy	80000
sbi	10010	1869.84	trichy	80000
sbi	10006	1202.04	trichy	80000

15IT302J-DATABASE MANAGEMENT SYSTEMS

DATE:-11/8/19

EXPERIMENT-3

NAME:- NANDISH SHAH

REG NO:-RA1711008010143

4. SUBQUERIES WITH SET OPERATION, JOIN AND CONSTRAINTS

sbi	10002	168 trichy	80000
hdfc	10007	1368.99 salem	40000
hdfc	10003	661.5 salem	40000

BRANCH_NAME	ACCOUNT_NO	BALANCE	BRANCH_CITY	ASSETS
-------------	------------	---------	-------------	--------

hsbc	10012	1535.94 ahemdabad	40000
hsbc	10008	1535.94 ahemdabad	40000
hsbc	10004	819 ahemdabad	40000

14 rows selected.

KEY CONSTRAINT:

31. ADD FOREIGN KEY TO BRANCH NAME IN ACCOUNT TABLE TO REFER BRANCH NAMES IN BRANCH TABLE WITH CONSTRAINT NAME

```
SQL> alter table account add constraint acbr foreign key(branch_name) references  
branch(branch_name) deferrable initially immediate;
```

Table altered.

32. ADD FOREIGN KEY TO BRANCH NAME IN LOAN TABLE TO REFER BRANCH NAMES IN BRANCH TABLE WITH CONSTRAINT NAME.

```
SQL> alter table loan add constraint lobr foreign key(branch_name) references  
branch(branch_name) deferrable initially deferred;
```

Table altered.

33. ENFORCE THE CONSTRAINT IMMEDIATELY ON THE TABLE.

```
SQL> alter session set constraint=immediate;
```

15IT302J-DATABASE MANAGEMENT SYSTEMS

DATE:-11/8/19

EXPERIMENT-3

NAME:- NANDISH SHAH

REG NO:-RA1711008010143

4. SUBQUERIES WITH SET OPERATION, JOIN AND CONSTRAINTS

Session altered.

34. ENFORCE THE CONSTRAINT WITH DEFERRED OPTION.

```
SQL> alter session set constraint=deferred;
```

Session altered.

35. CHECK THE FOREIGN KEY CONSTRAINTS IS VALID ON ACCOUNT TABLE.

```
SQL> alter table account modify constraint acbr enable validate;
```

Table altered.

36. DISBALE THE VALIDATE OPTION FOR CONSTRAINT ON ACCOUNT TABLE.

```
alter table loan modify constraint lobr enable novalidate
```

```
2 ;
```

Table altered.

37. DISABLE THE FOREIGN KEY CONSTRAINTS IN LOAN TABLE

```
SQL> alter table account modify constraint acbr disable novalidate;
```

Table altered.

38. DROP THE PRIMARY KEY OF ACCOUNT TABLE

```
SQL> alter table account drop primary key;
```

Table altered.

DROPPING A TABLE:

39. DROP THE USER DEFINED CONSTRAINT ON ACCOUNT TABLE.

```
SQL> alter table account drop constraint acbr;
```

Table altered.

40. DROP THE USER DEFINED CONSTRAINT ON LOAN TABLE.

15IT302J-DATABASE MANAGEMENT SYSTEMS

DATE:-11/8/19

EXPERIMENT-3

NAME:- NANDISH SHAH

REG NO:-RA1711008010143

4. SUBQUERIES WITH SET OPERATION, JOIN AND CONSTRAINTS

SQL> alter table loan drop constraint lobr;

Table altered.