

Practical 2**Arithmetic Operators:****Unary - :**

```
SQL> SELECT -(amount) FROM deposit_02;
```

```
-(AMOUNT)
-----
-1000
-5000
-3500
-1200
-3000
-2000
-1000
-5000
-7000
```

9 rows selected.

Unary + :

```
SQL> SELECT +(-(amount)) FROM deposit_02;
```

```
+(-(AMOUNT))
-----
-1000
-5000
-3500
-1200
-3000
-2000
-1000
-5000
-7000
```

9 rows selected.

Binary + :

```
SQL> SELECT 1234 + 1234 FROM DUAL;
```

```
1234 + 1234
-----
2468
```

```
SQL> SELECT AMOUNT + 100 FROM deposit_02;
```

AMOUNT+100

```

-----
      1100
      5100
      3600
      1300
      3100
      2100
      1100
      5100
      7100

```

9 rows selected.

Binary - :

SQL> SELECT 3500 - 1000 FROM DUAL;

```

3500-1000
-----
      2500

```

Q. Binary * :

SQL> SELECT 3500 * 1000 FROM DUAL;

```

3500*1000
-----
3500000

```

Q. Binary / :

SQL> SELECT 3500 / 1000 FROM DUAL;

```

3500/1000
-----
       3.5

```

Logical Operators:

Logical AND:

SQL> SELECT * FROM DEPOSIT_02 WHERE CNAME = 'PRAMOD' AND BNAME = 'M.G.ROAD';

AC_NO	CNAME	BNAME	AMOUNT	ADATE
105	PRAMOD	M.G.ROAD	3000	27-MAR-96

Logical OR:

```
SQL> SELECT * FROM deposit_02 WHERE cname = 'SUNIL' OR bname = 'AJNI';
```

ACTNO	CNAME	BNAME	AMOUNT	ADATE
101	SUNIL	AJNI	5000	04-JAN-96

```
SQL> SELECT * FROM deposit_02 WHERE cname = 'SUNIL' OR bname = 'NEHRU PLACE';
```

ACTNO	CNAME	BNAME	AMOUNT	ADATE
101	SUNIL	AJNI	5000	04-JAN-96
108	KRANTI	NEHRU PLACE	5000	02-JUL-95

Logical NOT:

```
SQL> SELECT * FROM deposit_02 WHERE cname <> 'ANIL';
```

ACTNO	CNAME	BNAME	AMOUNT	ADATE
101	SUNIL	AJNI	5000	04-JAN-96
102	MEHUL	KAROLBAGH	3500	17-NOV-95
104	MADHURI	CHANDNI	1200	17-DEC-95
105	PRAMOD	M.G.ROAD	3000	27-MAR-96
106	SANDIP	ANDHERI	2000	31-MAR-96
107	SHIVANI	VIRAR	1000	05-SEP-95
108	KRANTI	NEHRU PLACE	5000	02-JUL-95
109	NAREN	POWAI	7000	10-AUG-95

8 rows selected.

Comparison Operators:**Greater than Operator (>):**

```
SQL> SELECT * FROM deposit_02 WHERE amount > 4000;
```

ACTNO	CNAME	BNAME	AMOUNT	ADATE
101	SUNIL	AJNI	5000	04-JAN-96
108	KRANTI	NEHRU PLACE	5000	02-JUL-95
109	NAREN	POWAI	7000	10-AUG-95

Greater than or Equal to Operator (>=):

```
SQL> SELECT * FROM deposit_02 WHERE amount >= 3000;
```

ACTNO	CNAME	BNAME	AMOUNT	ADATE
101	SUNIL	AJNI	5000	04-JAN-96
102	MEHUL	KAROLBAGH	3500	17-NOV-95
105	PRAMOD	M.G.ROAD	3000	27-MAR-96
108	KRANTI	NEHRU PLACE	5000	02-JUL-95
109	NAREN	POWAI	7000	10-AUG-95

Lesser than Operator (<) :

```
SQL> SELECT * FROM deposit_02 WHERE amount < 3000;
```

ACTNO	CNAME	BNAME	AMOUNT	ADATE
100	ANIL	VRCE	1000	01-MAR-95
104	MADHURI	CHANDNI	1200	17-DEC-95
106	SANDIP	ANDHERI	2000	31-MAR-96
107	SHIVANI	VIRAR	1000	05-SEP-95

Lesser than or Equal to Operator (<=) :

```
SQL> SELECT * FROM deposit_02 WHERE amount <= 3000;
```

ACTNO	CNAME	BNAME	AMOUNT	ADATE
100	ANIL	VRCE	1000	01-MAR-95
104	MADHURI	CHANDNI	1200	17-DEC-95
105	PRAMOD	M.G.ROAD	3000	27-MAR-96
106	SANDIP	ANDHERI	2000	31-MAR-96
107	SHIVANI	VIRAR	1000	05-SEP-95

Not Equal to Operator (!=) :

```
SQL> SELECT * FROM deposit_02 WHERE amount != 3000;
```

ACTNO	CNAME	BNAME	AMOUNT	ADATE
100	ANIL	VRCE	1000	01-MAR-95
101	SUNIL	AJNI	5000	04-JAN-96
102	MEHUL	KAROLBAGH	3500	17-NOV-95
104	MADHURI	CHANDNI	1200	17-DEC-95
106	SANDIP	ANDHERI	2000	31-MAR-96
107	SHIVANI	VIRAR	1000	05-SEP-95
108	KRANTI	NEHRU PLACE	5000	02-JUL-95
109	NAREN	POWAI	7000	10-AUG-95

8 rows selected.

Equal to Operator (=) :

```
SQL> SELECT * FROM deposit_02 WHERE amount = 3000;
```

ACTNO	CNAME	BNAME	AMOUNT	ADATE
105	PRAMOD	M.G.ROAD	3000	27-MAR-96

View:

```
SQL> CREATE VIEW view1 AS SELECT actno, cname FROM deposit_02;
```

View created.

```
SQL> SELECT * FROM view1;
```

ACTNO	CNAME
100	ANIL
101	SUNIL
102	MEHUL
104	MADHURI
105	PRAMOD
106	SANDIP
107	SHIVANI
108	KRANTI
109	NAREN

9 rows selected.

Sequence:

```
SQL> CREATE SEQUENCE SEQ2
  2  START WITH 1
  3  MAXVALUE 10
  4  INCREMENT BY 1
  5  CACHE 12;
```

Sequence created.

```
SQL> SELECT * FROM STUDENT_02;
```

ID	NAME	CLASS
1	Hammad	SYMCA

SPIT

```
SQL> INSERT INTO STUDENT_02 VALUES (SEQ2.NEXTVAL, 'NISHITA' , 'FYMCA',
'SPIT2');
```

1 row created.

```
SQL> SELECT * FROM STUDENT_02;
```

ID	NAME	CLASS
1	Hammad	SYMCA
2	NISHITA	FYMCA

```
SQL> SAVEPOINT SB1;
```

Savepoint created.

```
SQL> INSERT INTO STUDENT_02 VALUES (SEQ2.NEXTVAL,
'MAULIKA','SYMCA','SPIT3');
```

1 row created.

```
SQL> DROP SEQUENCE SEQ2;
```

Sequence dropped.

Basic Queries:

Q. List all data from deposit table.

```
SELECT * FROM deposit_02;
```

ACTNO	CNAME	BNAME	AMOUNT	ADATE
100	ANIL	VRCE	1000	01-MAR-95
101	SUNIL	AJNI	5000	04-JAN-96
102	MEHUL	KAROLBAGH	3500	17-NOV-95
104	MADHURI	CHANDNI	1200	17-DEC-95
105	PRAMOD	M.G.ROAD	3000	27-MAR-96
106	SANDIP	ANDHERI	2000	31-MAR-96
107	SHIVANI	VIRAR	1000	05-SEP-95

108	KRANTI	NEHRU PLACE	5000	02-JUL-95
109	NAREN	POWAI	7000	10-AUG-95

9 rows selected.

Q. List all data from borrow table.

SQL> SELECT * FROM borrow_02;

LOANN	CNAME	BNAME	AMOUNT
201	ANIL	VRCE	1000
206	MEHUL	AJNI	5000
311	SUNIL	DHARAMPETH	3000
321	MADHURI	ANDHERI	2000
375	PRAMOD	VIRAR	8000
481	KRANTI	NEHRU PLACE	3000

6 rows selected.

Q. List names of customers living in Nagpur City.

SQL> SELECT cname FROM customer_02 WHERE city='NAGPUR';

CNAME

MADHURI
PRAMOD

Q. List names of borrowers having loan number 206.

SQL> SELECT cname FROM borrow_02 WHERE loanno=206;

CNAME

MEHUL

Q. List names of depositors having amount greater than 4000.

SQL> SELECT cname FROM deposit_02 WHERE amount > 4000;

CNAME

SUNIL
KRANTI
NAREN

SQL> SELECT * FROM deposit_02;

ACTNO	CNAME	BNAME	AMOUNT	ADATE
100	ANIL	VRCE	1000	01-MAR-95
101	SUNIL	AJNI	5000	04-JAN-96
102	MEHUL	KAROLBAGH	3500	17-NOV-95
104	MADHURI	CHANDNI	1200	17-DEC-95
105	PRAMOD	M.G.ROAD	3000	27-MAR-96
106	SANDIP	ANDHERI	2000	31-MAR-96
107	SHIVANI	VIRAR	1000	05-SEP-95
108	KRANTI	NEHRU PLACE	5000	02-JUL-95
109	NAREN	POWAI	7000	10-AUG-95

9 rows selected.

Q. List names of customers who opened account after date 1/12/95.

```
SQL> SELECT cname FROM deposit_02 WHERE adate > '1-DEC-95';
```

CNAME

```
-----
SUNIL
MADHURI
PRAMOD
SANDIP
```

Q. List name of the city where the Karol Bagh branch is located.

```
SQL> SELECT city FROM branch_02 WHERE bname = 'KAROLBAGH';
```

CITY

```
-----
DELHI
```

Q. List total loan.

```
SQL> SELECT SUM(amount) FROM borrow_02;
```

SUM(AMOUNT)

```
-----
22000
```

Q. List total number of customer cities.

```
SQL> SELECT COUNT(DISTINCT city) FROM customer_02;
```

COUNT(DISTINCTCITY)

```
-----
7
```

Q. Count total number of customers.


```
SQL> SELECT COUNT(cname) FROM customer_02;
```

```
COUNT(CNAME)
-----
          10
```

Q. List maximum loan from VRCE branch.

```
SQL> SELECT MAX(amount) FROM borrow_02 WHERE bname = 'VRCE';
```

```
MAX(AMOUNT)
-----
        1000
```

Q. Add 10% interest to all depositors.

```
SQL> UPDATE deposit_02
      2 SET amount = amount + (0.1 * amount);
```

9 rows updated.

```
SQL> SELECT * FROM deposit_02;
```

ACTNO	CNAME	BNAME	AMOUNT	ADATE
100	ANIL	VRCE	1100	01-MAR-95
101	SUNIL	AJNI	5500	04-JAN-96
102	MEHUL	KAROLBAGH	3850	17-NOV-95
104	MADHURI	CHANDNI	1320	17-DEC-95
105	PRAMOD	M.G.ROAD	3300	27-MAR-96
106	SANDIP	ANDHERI	2200	31-MAR-96
107	SHIVANI	VIRAR	1100	05-SEP-95
108	KRANTI	NEHRU PLACE	5500	02-JUL-95
109	NAREN	POWAI	7700	10-AUG-95

9 rows selected.

Q. Add 10% interest to all depositors having VRCE branch.

```
SQL> UPDATE deposit_02
      2 SET amount = amount + (0.1 * amount)
      3 WHERE bname = 'VRCE';
```

1 row updated.

```
SQL> SELECT * FROM deposit_02;
```

ACTNO	CNAME	BNAME	AMOUNT	ADATE
-------	-------	-------	--------	-------

100	ANIL	VRCE	1210	01-MAR-95
101	SUNIL	AJNI	5500	04-JAN-96
102	MEHUL	KAROLBAGH	3850	17-NOV-95
104	MADHURI	CHANDNI	1320	17-DEC-95
105	PRAMOD	M.G.ROAD	3300	27-MAR-96
106	SANDIP	ANDHERI	2200	31-MAR-96
107	SHIVANI	VIRAR	1100	05-SEP-95
108	KRANTI	NEHRU PLACE	5500	02-JUL-95
109	NAREN	POWAI	7700	10-AUG-95

9 rows selected.

Q. Delete depositors if the branch is Virar and the depositor's name is Shivani.

```
SQL> DELETE FROM deposit_02 WHERE bname='VIRAR' AND cname = 'SHIVANI';
```

1 row deleted.

```
SQL> SELECT * FROM deposit_02;
```

ACTNO	CNAME	BNAME	AMOUNT	ADATE
100	ANIL	VRCE	1210	01-MAR-95
101	SUNIL	AJNI	5500	04-JAN-96
102	MEHUL	KAROLBAGH	3850	17-NOV-95
104	MADHURI	CHANDNI	1320	17-DEC-95
105	PRAMOD	M.G.ROAD	3300	27-MAR-96
106	SANDIP	ANDHERI	2200	31-MAR-96
108	KRANTI	NEHRU PLACE	5500	02-JUL-95
109	NAREN	POWAI	7700	10-AUG-95

8 rows selected.

Q. Delete customers from Mumbai City.

```
SQL> DELETE FROM customer_02 WHERE city = 'MUMBAI';
```

```
DELETE FROM customer_02 WHERE city = 'MUMBAI'
```

*

ERROR at line 1:

ORA-02292: integrity constraint (SYSTEM.FK_CUSTOMER) violated - child record found

Q. Delete depositor having deposit less than 5000.

```
SQL> DELETE FROM deposit_02 WHERE amount < 5000;
```

5 rows deleted.

```
SQL> SELECT * FROM deposit_02;
```

ACTNO	CNAME	BNAME	AMOUNT	ADATE
101	SUNIL	AJNI	5500	04-JAN-96
108	KRANTI	NEHRU PLACE	5500	02-JUL-95
109	NAREN	POWAI	7700	10-AUG-95

```
SQL> ROLLBACK;
```

Rollback complete.

```
SQL> SELECT * FROM customer_02;
```

CNAME	CITY
ANIL	KOLKATA
SUNIL	DELHI
MEHUL	BARODA
MANDAR	PATNA
MADHURI	NAGPUR
PRAMOD	NAGPUR
SANDIP	SURAT
SHIVANI	MUMBAI
KRANTI	MUMBAI
NAREN	MUMBAI

10 rows selected.

```
SQL> SELECT * FROM deposit_02;
```

ACTNO	CNAME	BNAME	AMOUNT	ADATE
100	ANIL	VRCE	1000	01-MAR-95
101	SUNIL	AJNI	5000	04-JAN-96
102	MEHUL	KAROLBAGH	3500	17-NOV-95
104	MADHURI	CHANDNI	1200	17-DEC-95
105	PRAMOD	M.G.ROAD	3000	27-MAR-96
106	SANDIP	ANDHERI	2000	31-MAR-96
107	SHIVANI	VIRAR	1000	05-SEP-95
108	KRANTI	NEHRU PLACE	5000	02-JUL-95
109	NAREN	POWAI	7000	10-AUG-95

9 rows selected.

Subqueries and Joins:

```
SQL> select cname from deposit_02 where bname in (select bname from
deposit_02 where cname='SUNIL');
```

```
CNAME
-----
SUNIL
```

JOIN:

```
SQL> SELECT d.cname FROM deposit_02 d, deposit_02 e WHERE d.bname =
e.bname AND e.cname = 'SUNIL';
```

```
CNAME
-----
SUNIL
```

2. List LoanNo and LoanAmount of borrowers having the same branch as the of depositor SUNIL.

```
SQL> SELECT loanno, amount FROM borrow_02 WHERE bname IN (SELECT bname
FROM deposit_02 WHERE cname='SUNIL');
```

```
LOANN      AMOUNT
-----  -----
206          5000
```

JOIN:

```
SQL> SELECT b.loanno, b.amount FROM borrow_02 b, deposit_02 d WHERE
b.bname = d.bname AND d.cname = 'SUNIL';
```

```
LOANN      AMOUNT
-----  -----
206          5000
```

3. List all depositors living in NAGPUR.

```
SQL> SELECT cname FROM deposit_02 WHERE cname IN (SELECT cname FROM
customer_02 WHERE city='NAGPUR');
```

```
CNAME
-----
MADHURI
```

PRAMOD

JOIN:

```
SQL> SELECT d.cname FROM deposit_02 d, customer_02 c WHERE d.cname =  
c.cname AND city = 'NAGPUR';
```

CNAME

MADHURI

PRAMOD

4. List all depositors having deposit in all the branches where SUNIL is having account.

```
SQL> SELECT cname FROM deposit_02 WHERE bname IN (SELECT bname FROM  
deposit_02 WHERE cname='SUNIL');
```

CNAME

SUNIL

JOIN:

```
SQL> SELECT d.cname FROM deposit_02 d, deposit_02 e WHERE d.bname =  
e.bname AND e.cname = 'SUNIL';
```

CNAME

SUNIL

5. List names of customers having maximum deposit.

```
SQL> SELECT cname FROM deposit_02 WHERE amount = (SELECT MAX(amount) FROM  
deposit_02);
```

CNAME

NAREN

JOIN:

```
SQL> SELECT d1.cname, d1.amount FROM deposit_02 d1, deposit_02 d2 HAVING  
d1.amount = MAX(d2.amount) GROUP BY d1.cname, d1.amount;
```

CNAME

AMOUNT

```
-----  
NAREN                      7000
```

6. List names of customers having maximum deposit in the customers living in Nagpur.

```
SQL> SELECT cname FROM deposit_02 WHERE amount IN (SELECT MAX(amount) FROM  
deposit_02 WHERE cname IN (SELECT cname FROM customer_02 WHERE  
city='NAGPUR'));
```

```
CNAME  
-----  
PRAMOD
```

JOIN:

```
SQL> select og.cname from deposit_02 og right outer join (select  
max(amount) as amm from deposit_02 where cname in (select cname from  
customer_22 where city='NAGPUR')) fk on og.amount=fk.amm;
```

```
CNAME  
-----  
PRAMOD
```

7. List the names of branches having highest number of depositors.

```
SELECT d.bname FROM deposit_02 d GROUP BY d.bname HAVING COUNT(d.cname) >=  
ALL(SELECT COUNT(d1.cname) FROM deposit_02 d1 GROUP BY d1.bname);
```

```
BNAME  
-----  
VRCE  
AJNI  
KAROLBAGH  
CHANDNI  
M.G.ROAD  
VIRAR  
POWAI  
ANDHERI  
NEHRU PLACE
```

9 rows selected.

JOIN:

```
SQL> SELECT d.bname FROM deposit_02 d, deposit_02 d1 GROUP BY d.bname
HAVING COUNT(d.cname) >= COUNT(d1.cname);
```

BNAME

VRCE

AJNI

KAROLBAGH

CHANDNI

M.G.ROAD

VIRAR

POWAI

ANDHERI

NEHRU PLACE

9 rows selected.

8. List the highest deposit of the city where branch of Sunil is located.

```
SQL> SELECT MAX(amount) FROM deposit_02 WHERE bname IN (SELECT bname FROM
branch_02 WHERE city IN (SELECT city FROM customer_02 WHERE
cname='SUNIL'));
```

MAX (AMOUNT)

5000

JOIN:

```
SQL> SELECT MAX(d.amount) FROM deposit_02 d, branch_02 b, customer_02 c
WHERE d.bname = b.bname AND b.city = c.city AND c.cname = 'SUNIL';
```

MAX (D.AMOUNT)

5000

9. List the names of customers having more deposit than the average deposit in their respective branches.

```
SQL> SELECT cname FROM deposit_02 WHERE amount > ANY(SELECT AVG(amount)
FROM deposit_02 WHERE bname IN(SELECT bname FROM branch_02 GROUP BY
bname));
```

CNAME

SUNIL

MEHUL

KRANTI

NAREN

JOIN:

```
SQL> SELECT d.cname, d.amount FROM deposit_02 d, deposit_02 d1, branch_02
b WHERE d.bname = b.bname HAVING d.amount > AVG(d1.amount) GROUP BY
d.cname, d.amount;
```

CNAME

AMOUNT

SUNIL 5000

KRANTI 5000

NAREN 7000

MEHUL 3500

10. List the names of branches where number of depositors less than 2.

```
SELECT bname FROM deposit_02 HAVING COUNT(cname) < 2 GROUP BY bname;
```

BNAME

VRCE

AJNI

KAROLBAGH

CHANDNI

M.G.ROAD

VIRAR

POWAI

ANDHERI

NEHRU PLACE

9 rows selected.

JOIN:

11. Count the number of customers living in the city where branch is located.

```
SQL> SELECT COUNT(cname) FROM customer_02 WHERE city IN (SELECT city FROM
branch_02);
```

```
COUNT(CNAME)
-----
                6
```

JOIN:

```
SQL> select count(distinct c.cname) from customer_02 c, branch_02 b where
c.city = b.city;
```

```
COUNT(DISTINCTC.CNAME)
-----
                6
```

12. Change the living city of the VRCE branch borrowers to Nagpur.

```
SQL> SELECT * FROM customer_02;
```

CNAME	CITY
ANIL	KOLKATA
SUNIL	DELHI
MEHUL	BARODA
MANDAR	PATNA
MADHURI	NAGPUR
PRAMOD	NAGPUR
SANDIP	SURAT
SHIVANI	MUMBAI
KRANTI	MUMBAI
NAREN	MUMBAI

10 rows selected.

```
SQL> UPDATE customer_02 SET CITY = 'NAGPUR' WHERE cname IN (SELECT cname
FROM borrow_02 WHERE bname = 'VRCE');
```

1 row updated.

```
SQL> SELECT * FROM customer_02;
```

CNAME	CITY
ANIL	NAGPUR
SUNIL	DELHI
MEHUL	BARODA
MANDAR	PATNA
MADHURI	NAGPUR
PRAMOD	NAGPUR
SANDIP	SURAT
SHIVANI	MUMBAI
KRANTI	MUMBAI
NAREN	MUMBAI

10 rows selected.

JOIN:

```
SQL> UPDATE customer_02 SET city = 'NAGPUR' WHERE cname IN (SELECT
c1.cname FROM customer_02 c1 INNER JOIN borrow_02 b1 ON c1.cname =
b1.cname WHERE b1.bname = 'VRCE');
```

1 row updated.

13. Update deposit of Anil. Give him maximum deposit from depositors living in city Nagpur.

```
SQL> UPDATE deposit_02 SET amount = (SELECT MAX(amount) FROM
deposit_02 WHERE cname IN (SELECT cname FROM customer_02 WHERE city =
'NAGPUR')) WHERE cname='ANIL';
```

1 row updated.

```
SQL> SELECT * FROM deposit_02;
```

ACTNO	CNAME	BNAME	AMOUNT	ADATE
100	ANIL	VRCE	3000	01-MAR-95
101	SUNIL	AJNI	5000	04-JAN-96

102	MEHUL	KAROLBAGH	3500	17-NOV-95
104	MADHURI	CHANDNI	1200	17-DEC-95
105	PRAMOD	M.G.ROAD	3000	27-MAR-96
106	SANDIP	ANDHERI	2000	31-MAR-96
107	SHIVANI	VIRAR	1000	05-SEP-95
108	KRANTI	NEHRU PLACE	5000	02-JUL-95
109	NAREN	POWAI	7000	10-AUG-95

9 rows selected.

JOIN:

```
SQL> UPDATE deposit_02 SET amount = (SELECT MAX(amount) FROM deposit_02 d1
INNER JOIN branch_02 b1 ON d1.bname = b1.bname WHERE b1.city = 'NAGPUR')
WHERE cname = 'ANIL';
```

1 row updated.

14. Transfer Rs. 100 from account Anil to account Sunil if both are having the same branch.

```
SQL> UPDATE deposit_02 SET amount = amount-100 WHERE cname = 'ANIL' AND
bname IN (SELECT bname FROM deposit_02 WHERE cname = 'SUNIL');
```

0 rows updated.

```
SQL> UPDATE deposit_02 SET amount = amount+100 WHERE cname = 'SUNIL' AND
bname IN (SELECT bname FROM deposit_02 WHERE cname = 'ANIL');
```

0 rows updated.

JOIN:

15. Add Rs. 100 to the account of all those depositors who are having the highest deposit amount in their respective branches.

```
SQL> UPDATE deposit_02 SET amount = amount+100 WHERE cname IN(SELECT cname
FROM deposit_02 WHERE amount = ANY(SELECT MAX(amount) FROM deposit_02
GROUP BY bname));
```

9 rows updated.

```
SQL> SELECT * FROM deposit_02;
```

ACTNO	CNAME	BNAME	AMOUNT	ADATE
100	ANIL	VRCE	1100	01-MAR-95
101	SUNIL	AJNI	5100	04-JAN-96
102	MEHUL	KAROLBAGH	3600	17-NOV-95
104	MADHURI	CHANDNI	1300	17-DEC-95
105	PRAMOD	M.G.ROAD	3100	27-MAR-96
106	SANDIP	ANDHERI	2100	31-MAR-96
107	SHIVANI	VIRAR	1100	05-SEP-95
108	KRANTI	NEHRU PLACE	5100	02-JUL-95
109	NAREN	POWAI	7100	10-AUG-95

9 rows selected.

JOIN:

16. Delete branches having deposit from Nagpur.

```
SQL> DELETE FROM deposit_02 WHERE bname IN (SELECT bname FROM branch_02
WHERE city = 'NAGPUR');
```

2 rows deleted.

JOIN:

```
SQL> UPDATE deposit_02 SET amount = amount + 100 WHERE bname IN (SELECT
d1.bname FROM deposit_02 d1, deposit_02 d2 GROUP BY d1.bname, d2.bname
HAVING AVG(d1.amount) >= MAX(d2.amount) AND d1.bname = d2.bname);
```

9 rows updated.

17. Delete deposit of Anil and Sunil if both are living in the same city.

```
SQL> DELETE FROM deposit_02 WHERE cname IN ('ANIL', 'SUNIL') AND
EXISTS(SELECT * FROM customer_02 c1, customer_02 c2 WHERE c1.cname =
'ANIL' AND c2.cname = 'SUNIL' AND c1.city = c2.city);
```

0 rows deleted.

JOIN:

```
SQL> DELETE FROM deposit_02 WHERE cname IN ('ANIL', 'SUNIL') AND EXISTS
(SELECT * FROM customer_02 c1, customer_02 c2 WHERE c1.cname = 'ANIL' AND
c2.cname = 'SUNIL' AND c1.city = c2.city);
```

0 rows deleted.

18. Delete borrower of branches having minimum number of customers.

```
SQL> DELETE FROM borrow_02 WHERE bname IN (SELECT bname FROM deposit_02
GROUP BY bname HAVING COUNT(cname) <= ALL(SELECT COUNT(cname) FROM
deposit_02 GROUP BY bname));
```

5 rows deleted.

JOIN:

```
SQL> DELETE FROM borrow_02 WHERE bname IN (SELECT d1.bname FROM deposit_02
d1, deposit_02 d2 GROUP BY d1.bname HAVING COUNT(d1.cname) <=
COUNT(d2.cname));
```

5 rows deleted.

19. List names of customers who are depositors as well as borrowers.

```
SQL> SELECT cname FROM deposit_02 WHERE cname IN (SELECT cname FROM
borrow_02);
```

CNAME

ANIL

MEHUL

SUNIL

MADHURI

PRAMOD

KRANTI

6 rows selected.

JOIN:

```
SELECT d.cname FROM deposit_02 d, borrow_02 b WHERE d.cname = b.cname;
```

20. List all the customers who are depositors but not borrowers.

```
SQL> SELECT cname FROM deposit_02 WHERE cname NOT IN (SELECT cname FROM
borrow_02);
```

CNAME

SANDIP
NAREN
SHIVANI

JOIN:

```
SQL> SELECT d.cname FROM deposit_02 d LEFT OUTER JOIN borrow_02 b ON  
d.cname = b.cname WHERE b.cname IS NULL;
```

CNAME

SANDIP
NAREN
SHIVANI

21. List the depositors having the same living city as Sunil and the same branch city as Anil.

```
SQL> SELECT cname FROM deposit_02 WHERE cname IN (SELECT cname FROM  
customer_02 WHERE city = (SELECT city FROM customer_02 WHERE cname =  
'SUNIL')) AND bname IN (SELECT bname FROM branch_02 WHERE city = (SELECT  
city FROM branch_02 WHERE bname = (SELECT bname FROM deposit_02 WHERE  
cname = 'ANIL')));
```

CNAME

SUNIL

JOIN:

```
SQL> SELECT d1.cname FROM deposit_02 d1, customer_02 c1, branch_02 b1  
WHERE c1.cname = d1.cname AND d1.bname = b1.bname AND b1.city IN (SELECT  
b2.city FROM branch_02 b2, deposit_02 d2 WHERE d2.cname = 'ANIL' and  
d2.bname = b2.bname AND c1.city IN (SELECT c2.city FROM customer_02 c2  
WHERE c2.cname = 'SUNIL'));
```

CNAME

SUNIL

22. List the depositors having amount less than 5000 and living in the city as Shivani.

```
SQL> SELECT * FROM deposit_02 WHERE amount < 5000 AND bname IN (SELECT
bname FROM branch_02 WHERE city IN (SELECT city FROM customer_02 WHERE
cname = 'SHIVANI'));
```

ACTNO	CNAME	BNAME	AMOUNT	ADATE
106	SANDIP	ANDHERI	2000	31-MAR-96
107	SHIVANI	VIRAR	1000	05-SEP-95

JOIN:

```
SQL> select d.* from deposit_02 d, branch_02 b, customer_02 c where
c.cname = 'SHIVANI' and b.city = c.city and d.bname = b.bname having
d.amount < 5000 group by d.cname, d.amount, d.actno, d.bname, d.adata;
```

ACTNO	CNAME	BNAME	AMOUNT	ADATE
106	SANDIP	ANDHERI	2000	31-MAR-96
107	SHIVANI	VIRAR	1000	05-SEP-95

23. List the customers who are borrowers or depositors and having living city Mumbai and the branch city same as that of Sandip.

```
SQL> SELECT cname FROM deposit_02 WHERE cname IN (SELECT cname FROM
customer_02 WHERE city = 'MUMBAI') AND bname IN (SELECT bname FROM
customer_02 WHERE city IN (SELECT city FROM branch_02 WHERE bname IN
(SELECT bname FROM deposit_02 WHERE cname = 'SANDIP')));
```

CNAME
SHIVANI
KRANTI
NAREN

24. List the branch name and branch wise deposit.

```
SQL> SELECT bname, SUM(amount) FROM deposit_02 GROUP BY bname;
```

BNAME	SUM(AMOUNT)
VRCE	1000
AJNI	5000
KAROLBAGH	3500
CHANDNI	1200
M.G.ROAD	3000

```

VIRAR          1000
POWAI          7000
ANDHERI        2000
NEHRU PLACE    5000

```

9 rows selected.

JOIN: --

25. Add 100 to the amount of all depositors having deposit higher than the average deposit of their branch.

```

SQL> UPDATE deposit_02 SET amount = amount+100 WHERE cname IN(SELECT cname
FROM deposit_02 WHERE amount >= ANY(SELECT AVG(amount) FROM deposit_02
GROUP BY bname));

```

9 rows updated.

```

SQL> SELECT * FROM deposit_02;

```

ACTNO	CNAME	BNAME	AMOUNT	ADATE
100	ANIL	VRCE	1100	01-MAR-95
101	SUNIL	AJNI	5100	04-JAN-96
102	MEHUL	KAROLBAGH	3600	17-NOV-95
104	MADHURI	CHANDNI	1300	17-DEC-95
105	PRAMOD	M.G.ROAD	3100	27-MAR-96
106	SANDIP	ANDHERI	2100	31-MAR-96
107	SHIVANI	VIRAR	1100	05-SEP-95
108	KRANTI	NEHRU PLACE	5100	02-JUL-95
109	NAREN	POWAI	7100	10-AUG-95

9 rows selected.

JOIN:

26. List names of depositors who has third highest amount.

```

SQL> SELECT cname FROM(SELECT d.*, ROW_NUMBER() OVER (ORDER BY amount
DESC) rn FROM deposit_02 d) WHERE rn = 3;

```

```

CNAME
-----
KRANTI

```


JOIN: --

27. List details of depositors according to ascending order of customer names.

```
SQL> SELECT * FROM deposit_02 ORDER BY cname ASC;
```

ACTNO	CNAME	BNAME	AMOUNT	ADATE
100	ANIL	VRCE	1000	01-MAR-95
108	KRANTI	NEHRU PLACE	5000	02-JUL-95
104	MADHURI	CHANDNI	1200	17-DEC-95
102	MEHUL	KAROLBAGH	3500	17-NOV-95
109	NAREN	POWAI	7000	10-AUG-95
105	PRAMOD	M.G.ROAD	3000	27-MAR-96
106	SANDIP	ANDHERI	2000	31-MAR-96
107	SHIVANI	VIRAR	1000	05-SEP-95
101	SUNIL	AJNI	5000	04-JAN-96

9 rows selected.

JOIN: --