

ADBMS LAB

Experiments 5, 6&7

Experiment-5 – Aggregate Functions

1. List total loan

```
SELECT SUM (AMOUNT) FROM BORROW;
```

2. List total deposit

```
SELECT SUM (AMOUNT) FROM DEPOSIT;
```

3. List total loan taken from KAROLBAGH branch

```
SELECT MAX(AMOUNT) FROM BORROW WHERE BNAME ='KAROLBAGH';
```

4. List total deposit of customers having account date later than 1-Jan-96

```
SELECT SUM(AMOUNT) from deposit where adate>'1995-03-01';
```

5. List total deposit of customers living in city NAGPUR

```
SELECT SUM(D1.AMOUNT) FROM DEPOSIT D1 , CUSTOMER C1 WHERE C1.CITY =  
'NAGPUR' AND C1.CNAME = D1.CNAME;
```

6. List maximum deposit of customer living in Bombay

```
SELECT MAX(D1.AMOUNT) FROM DEPOSIT D1 , CUSTOMER C1 WHERE C1.CITY =  
'Bombay' AND C1.CNAME = D1.CNAME;
```

7. List total deposit of customer having branch in BOMBAY

```
SELECT SUM (AMOUNT) from deposit,BRANCH where city='BOMBAY';
```

8. Count total number of branch cities

```
SELECT COUNT(DISTINCT (CITY)) FROM BRANCH ;
```

9. Count total number of customers cities

```
SELECT count(city) from CUSTOMER;
```

10. Give branch names and branch wise deposit

```
SELECT BNAME , SUM(AMOUNT) FROM DEPOSIT GROUP BY BNAME;
```

11. Give city wise name and branch wise deposit

```
SELECT C1.CITY , SUM(D1.AMOUNT) FROM CUSTOMER C1 , DEPOSIT D1 WHERE  
D1.CNAME = C1.CNAME GROUP BY C1.CITY;
```

12. Give the branch wise loan of customer living in NAGPUR

```
SELECT BNAME , SUM(AMOUNT) FROM BORROW,CUSTOMER WHERE city  
='NAGPUR' GROUP BY BNAME;
```

13. Count total number of customers

```
SELECT count(cname) from CUSTOMER;
```

14. Count total number of depositors branch wise

```
SELECT BName, count (*)from DEPOSIT, CUSTOMER where deposit.CNAME =  
CUSTOMER.CNAME group by BNAME
```

15. Count total number of depositors branch wise

```
SELECT BName, count (*)from DEPOSIT, CUSTOMER where deposit.CNAME =  
CUSTOMER.CNAME group by BNAME
```

16. Give maximum loan from branch VRCE

```
SELECT MAX(AMOUNT) FROM BORROW WHERE BNAME ='VRCE';
```

17. Give the number of customers who are depositors as well as borrowers

```
SELECT COUNT(DISTINCT (CNAME)) FROM CUSTOMER WHERE CNAME IN ((SELECT  
CNAME FROM DEPOSIT) INTERSECT (SELECT CNAME FROM BORROW));
```

Experiment - 6 – Set operations

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

```
SELECT CNAME FROM DEPOSIT MINUS SELECT CNAME FROM BORROW;
```

2. List all the customers who are both depositors and borrowers

```
SELECT CNAME FROM DEPOSIT UNION (SELECT CNAME FROM BORROW);
```

3. List all the depositors having deposit in all the branches where Sunil is having Account

```
SELECT D1.CNAME FROM DEPOSIT D1 WHERE D1.BNAME IN (SELECT D2.BNAME  
FROM DEPOSIT D2 WHERE D2.CNAME = 'SUNIL');
```

4. List all the customers living in city NAGPUR and having branch city BOMBAY or DELHI

```
SELECT C1.CNAME FROM CUSTOMER C1,DEPOSIT D1, BRANCH B1 WHERE C1.CITY =  
'NAGPUR' AND C1.CNAME = D1.CNAME AND D1.BNAME = B1.BNAME AND B1.CITY  
IN ('BOMBAY','DELHI');
```

5. List all the depositors living in city NAGPUR

```
SELECT Distinct(CUSTOMER.CNAME) from CUSTOMER,DEPOSIT WHERE  
City='NAGPUR';
```

6. List all the depositors living in the city NAGPUR and having branch in city BOMBAY

```
SELECT C1.CNAME FROM CUSTOMER C1,DEPOSIT D1, BRANCH B1 WHERE C1.CITY =  
'NAGPUR' AND C1.CNAME = D1.CNAME AND D1.BNAME = B1.BNAME AND B1.CITY  
IN ('BOMBAY');
```

7. List the branch cities of Anil and Sunil

```
SELECT B1.CITY FROM DEPOSIT D1, BRANCH B1 WHERE D1.BNAME = B1.BNAME AND  
D1.CNAME IN ('SUNIL','ANIL');
```

11. List all the cities where branches of Anil and Sunil are locate

```
SELECT B1.CITY FROM BRANCH B1 WHERE B1.BNAME IN (SELECT D1.BNAME FROM  
DEPOSIT D1 WHERE D1.CNAME IN ('ANIL','SUNIL'));
```

Experiment - 6 – JOIN OR CARTESIAN PRODUCT

1. Give name of customers having living city BOMBAY and branch city NAGPUR

```
SELECT D1.CNAME,D1.BNAME,C1.CNAME,C1.CITY,B1.CITY,B1.BNAME FROM  
DEPOSIT D1,CUSTOMER C1,BRANCH B1 WHERE C1.CITY = 'BOMBAY' AND B1.CITY =  
'NAGPUR' AND D1.CNAME = C1.CNAME AND D1.BNAME = B1.BNAME;
```

2. Give names of customers having the same living city as their branch city

```
SELECT distinct(customer.CNAME), BRANCH.CITY FROM BRANCH, customer WHERE  
BRANCH.city = customer.city;
```

3. Give names of customers who are borrowers as well as depositors and having city NAGPUR.

```
SELECT C1.CNAME FROM CUSTOMER C1,DEPOSIT D1,BORROW B1 WHERE  
C1.CITY='NAGPUR' AND C1.CNAME=D1.CNAME AND D1.CNAME = B1.CNAME;
```

4. Give names of borrowers having deposit amount greater than 1000 and loan amount greater than 2000.

```
SELECT BR1.CNAME, BR1.AMOUNT, D1.CNAME, D1.AMOUNT FROM BORROW  
BR1,DEPOSIT D1 WHERE D1.CNAME = BR1.CNAME AND D1.AMOUNT > 1000 AND  
BR1.AMOUNT > 2000;
```

5. Give names of depositors having the same branch as the branch of Sunil

```
SELECT D1.CNAME FROM DEPOSIT D1 WHERE D1.BNAME IN (SELECT D2.BNAME  
FROM DEPOSIT D2 WHERE D2.CNAME = 'SUNIL');
```

6. Give names of borrowers having loan amount greater than the loan amount of Pramod

```
SELECT BR1.CNAME, BR1.AMOUNT FROM BORROW BR1 WHERE BR1.AMOUNT > ALL  
(SELECT BR2.AMOUNT FROM BORROW BR2 WHERE BR2.CNAME = 'PRAMOD');
```

7. Give the name of the customer living in the city where branch of depositor Sunil is located.

```
SELECT C.CNAME FROM CUSTOMER C WHERE C.CITY IN (SELECT B.CITY FROM  
BRANCH B WHERE B.BNAME IN (SELECT D.BNAME FROM DEPOSIT D WHERE  
D.CNAME='SUNIL'));
```

8. Give branch city and living city of Pramod

```
SELECT B1.CITY , C1.CITY FROM BRANCH B1, CUSTOMER C1, DEPOSIT D1 WHERE  
C1.CNAME = 'PRAMOD' AND C1.CNAME = D1.CNAME AND D1.BNAME = B1.BNAME;
```

9. Give branch city of Sunil and branch city of Anil

```
SELECT B1.CITY FROM DEPOSIT D1, BRANCH B1 WHERE D1.BNAME = B1.BNAME AND  
D1.CNAME IN ('SUNIL' , 'ANIL');
```

10. Give the living city of Anil and the living city of Sunil

```
SELECT C1.CNAME, C1.CITY FROM CUSTOMER C1 WHERE C1.CNAME = 'ANIL' OR  
C1.CNAME = 'SUNIL';
```