

## EXERIMENT -5

### AGGREGATE FUNCTONS

#### 1. List total loan

```
mysql> select*from borrow;
```

```
+-----+-----+-----+-----+
| NOANNO | AMOUNT | CNAME  | BNAME    |
+-----+-----+-----+-----+
| L201   | 1000   | ANIL   | VRCE      |
| L206   | 5000   | MEHUL  | AJNI      |
| L311   | 3000   | SUNIL  | DHARAMPETH |
| L321   | 2000   | MADHURI | ANDHERI   |
| L371   | 8000   | PRAMOD | VRCE      |
| L481   | 3000   | KRANTI | NEHRU PALACE |
+-----+-----+-----+-----+
```

```
mysql> select sum(AMOUNT)from borrow;
```

```
+-----+
| sum(AMOUNT) |
+-----+
|      22000 |
+-----+
```

#### 2. List total deposit:

```
mysql> select*from deposit;
```

```
+-----+-----+-----+-----+-----+
| ACTNO | CNAME  | BNAME    | AMOUNT | ADATE    |
+-----+-----+-----+-----+-----+
```

D100	ANIL	VRCE	1000	1991-03-01
D102	SUNIL	AJNI	500	1996-01-04
D103	MEHUL	KAROLBAGH	3500	1995-11-17
D104	MADHURI	CHANDNI	1200	1995-12-17
D105	PRAMOD	MG ROAD	3000	1996-03-27
D106	SANDIP	ANDHERI	2000	1996-03-31
D107	SHIVANI	VRCE	1000	1995-09-05
D108	KRANTI	NEHRU PALACE	5000	1995-07-02
D109	ANIL	POWAI	7000	1995-08-10

```
mysql> select sum(amount)from borrow;
```

SUM(AMOUNT)
22000

### 3. List total loan taken from KAROLBAGH branch

```
mysql> select max(AMOUNT)from borrow where BNAME='KAROLBAGH';
```

max(AMOUNT)
NULL

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

```
mysql> select sum(amount)from deposit where ADATE='1995-03-01';
```

sum(amount)
NULL

### 5. List maximum deposit of customer living in Bombay:

```
mysql> select max(amount)from deposit D1,customer C1 where  
C1.CITY='bombay' AND C1.CNAME=D1.CNAME;
```

```

+-----+
| max(amount) |
+-----+
| 5000      |
+-----+

```

6. List total deposit of customer living in NAGPUR:

```

mysql> select max(amount)from deposit D1,customer C1 where
C1.CITY='nagpur' AND C1.CNAME=D1.CNAME;

```

```

+-----+
| max(amount) |
+-----+
| 3000      |
+-----+

```

7. List total deposit of customer having branch in Bombay:

```

mysql> select sum(amount)from deposit,branch where CITY='bombay';

```

```

+-----+
| sum(amount) |
+-----+
| 48400      |
+-----+

```

8. Count total number of branch cities:

```

mysql> select count(DISTINCT(CITY))from branch;

```

```

+-----+

```

```

| count(DISTINCT(CITY)) |
+-----+
|          4 |
+-----+

```

9. Count total number of customers cities:

```

mysql> select count(CITY)from customer;
+-----+
| count(CITY) |
+-----+
|          10 |
+-----+

```

10. Give branch names and branch wise deposit:

```

mysql> select BNAME,sum(amount)from deposit group by BNAME;
+-----+-----+
| BNAME      | sum(amount) |
+-----+-----+
| AJNI       |          500 |
| ANDHERI    |          2000 |
| CHANDNI    |          1200 |
| KAROLBAGH  |          3500 |
| MG ROAD    |          3000 |
| NEHRU PALACE |          5000 |
| POWAI      |          7000 |
| VRCE       |          2000 |
+-----+-----+

```

11. Give city wise name and branch wise deposit:

```

mysql> select C1.CITY,sum(C1.amount)from customer C1,deposit D1
where D1.CNAME=C1.CNAME group by C1.CITY;

```

12. Give branch wise loan of customer living in Nagpur:

```
mysql> select BNAME,sum(AMOUNT)from borrow,customer where  
CITY='NAGPUR' group by BNAME;
```

```
+-----+-----+  
| BNAME      | sum(AMOUNT) |  
+-----+-----+  
| VRCE       | 18000       |  
| AJNI       | 10000       |  
| DHARAMPETH | 6000        |  
| ANDHERI    | 4000        |  
| NEHRU PALACE | 6000       |  
+-----+-----+
```

13. Count total number of customers;

```
mysql> select count(CNAME)from customer;
```

```
+-----+  
| count(CNAME) |  
+-----+  
| 10           |  
+-----+
```

14. Count total number of depositors branch wise;

```
mysql> select BNAME,count(*)from deposit,customer where  
deposit.CNAME=customer.CNAME group by BNAME;
```

```
+-----+-----+  
| BNAME      | count(*) |  
+-----+-----+  
| VRCE       | 2        |  
| AJNI       | 1        |  
| KAROLBAGH  | 1        |  
| CHANDNI    | 1        |  
| MG ROAD    | 1        |  
| ANDHERI    | 1        |  
| NEHRU PALACE | 1       |
```

POWAI		1	
+-----+			

15. Count total number of depositors branch wise;

**mysql> select BNAME,count(\*)from deposit,customer where  
deposit.CNAME=customer.CNAME group by BNAME;**

+-----+			
BNAME		count(*)	
+-----+			
VRCE		2	
AJNI		1	
KAROLBAGH		1	
CHANDNI		1	
MG ROAD		1	
ANDHERI		1	
NEHRU PALACE		1	
POWAI		1	
+-----+			

16. Give maximum loan from branch VRCE:

**mysql> select max(AMOUNT)from borrow where BNAME='VRCE';**

+-----+	
max(AMOUNT)	
+-----+	
8000	
+-----+	

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

**mysql> select count(DISTINCT(CNAME))from customer where  
CNAME IN((select CNAME from deposit)INTERSECT(select CNAME  
from borrow));**

## EXERIMENT -6

### SET OPERATIONS

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

```
mysql> select CNAME from deposit MINUS select CNAME from borrow;
```

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

```
mysql> select CNAME from deposit UNION(select CNAME from  
borrow);
```

```
+-----+  
| CNAME |  
+-----+  
| ANIL  |  
| KRANTI |  
| MADHURI |  
| MEHUL  |  
| PRAMOD |  
| SANDIP |  
| SHIVANI |  
| SUNIL  |  
+-----+
```

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

```
mysql> select D1.CNAME from deposit D1 where D1.BNAME IN(select  
D2.BNAME from deposit D2 where D2.CNAME='SUNIL');
```

```
+-----+  
| CNAME |  
+-----+  
| SUNIL |  
+-----+
```

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

```
mysql> 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');
Empty set (0.04 sec)
```

5. List all the depositors living in city Nagpur:

```
mysql> select DISTINCT(customer.CNAME) from customer,deposit
where CITY='NAGPUR';
```

```
+-----+
| CNAME |
+-----+
| PRAMOD |
| MANDAR |
+-----+
```

6. List all the branches cities of Anil and Sunil:

```
mysql> select B1.CITY from deposit D1,branch B1 where
D1.BNAME=B1.BNAME AND D1.CNAME IN('SUNIL','ANIL');
```

```
+-----+
| CITY |
+-----+
| nagpur |
| bombay |
| nagpur |
+-----+
```

7. List all the depositors living in city Nagpur and having branch in city Bombay:

```
mysql> 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');
```

Empty set (0.03 sec)

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



```
mysql> select B1.CITY from branch B1 where B1.BNAME IN(select
D1.BNAME from deposit D1 where D1.CNAME IN('ANIL','SUNIL'));
```

```
+-----+
| CITY   |
+-----+
| nagpur |
| bombay |
| nagpur |
+-----+
```

## EXERIMENT -7

### 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';
```