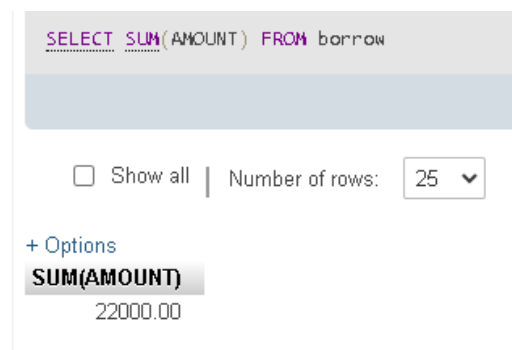


## EXPERIMENT NO.5 : 10/05/2021

### AGGREGATE FUNCTIONS

#### 1.List total loan

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

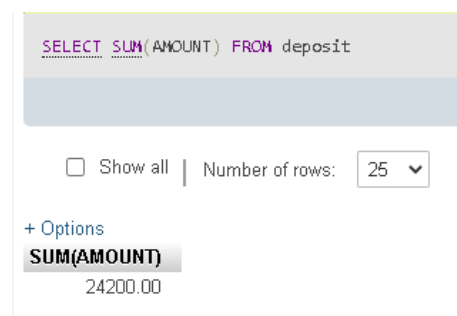


The screenshot shows a SQL query editor with the query `SELECT SUM(AMOUNT) FROM borrow`. Below the query, there is a table with one row and one column. The column header is `SUM(AMOUNT)` and the value is `22000.00`. There are also controls for 'Show all' and 'Number of rows: 25'.

SUM(AMOUNT)
22000.00

#### 2.List total deposit

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



The screenshot shows a SQL query editor with the query `SELECT SUM(AMOUNT) FROM deposit`. Below the query, there is a table with one row and one column. The column header is `SUM(AMOUNT)` and the value is `24200.00`. There are also controls for 'Show all' and 'Number of rows: 25'.

SUM(AMOUNT)
24200.00

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

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

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

☐ Show all | Number of rows: 25 | Filter rows:

+ Options

**MAX(AMOUNT)**

NULL

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

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

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

☐ Show all | Number of rows: 25 | Filter rows:

+ Options

**SUM(AMOUNT)**

14700.00

5. List total deposit of customers living in city NAGPUR

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

+ Options

**SUM(D1.AMOUNT)**

4200.00

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;
```

+ Options

**MAX(D1.AMOUNT)**

5000.00

7. List total deposit of customer having branch in BOMBAY

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

+ Options

SUM(AMOUNT)
48400.00

8.Count total number of branch cities

SELECT COUNT(DISTINCT (CITY)) FROM branch ;

+ Options

COUNT(DISTINCT (CITY))
4

9.Count total number of customers cities

SELECT COUNT (CITY) FROM customer;

SELECT COUNT(CITY) FROM customer

+ Options

COUNT(CITY)
10

10.Give branch names and branch wise deposit

SELECT BNAME , SUM(AMOUNT) FROM desposit GROUP BY BNAME;

+ Options

	BNAME	SUM(AMOUNT)
<input type="checkbox"/> Edit Copy Delete	ANDHERI	2000.00
<input type="checkbox"/> Edit Copy Delete	ANJUNI	500.00
<input type="checkbox"/> Edit Copy Delete	CHANDNI	1200.00
<input type="checkbox"/> Edit Copy Delete	KAROLBAGH	3500.00
<input type="checkbox"/> Edit Copy Delete	MG ROAD	3000.00
<input type="checkbox"/> Edit Copy Delete	NEHRU PALACE	5000.00
<input type="checkbox"/> Edit Copy Delete	POWAI	7000.00
<input type="checkbox"/> Edit Copy Delete	VIRAR	1000.00
<input type="checkbox"/> Edit Copy Delete	VRCE	1000.00

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;

+ Options			
		CITY	SUM(D1.AMOUNT)
<input type="checkbox"/>	Edit Copy Delete	BARODA	3500.00
<input type="checkbox"/>	Edit Copy Delete	BOMBAY	6000.00
<input type="checkbox"/>	Edit Copy Delete	CALCUTTA	1000.00
<input type="checkbox"/>	Edit Copy Delete	DELHI	500.00
<input type="checkbox"/>	Edit Copy Delete	NAGPUR	4200.00
<input type="checkbox"/>	Edit Copy Delete	SURAT	2000.00

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

SELECT BNAME , SUM(AMOUNT) FROM borrow, customer WHERE city ='NAGPUR'  
GROUP BY BNAME;

+ Options			
		BNAME	SUM(AMOUNT)
		AJNI	10000.00
		ANDHERI	4000.00
		DHARAMPETH	6000.00
		NEHRU PALACE	6000.00
		VIRAR	16000.00
		VRCE	2000.00

13. Count total number of customers

SELECT count(cname) from CUSTOMER;

+ Options			
		count(cname)	
		10	

14. Count total number of depositors branch wise

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

+ Options			
		BName	count(*)
		ANDHERI	1
		ANJNI	1
		CHANDNI	1
		KAROLBAGH	1
		MG ROAD	1
		NEHRU PALACE	1
		VIRAR	1
		VRCE	1

15.Count total number of depositors branch wise

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

+ Options

BName	count(*)
ANDHERI	1
ANJNI	1
CHANDNI	1
KAROLBAGH	1
MG ROAD	1
NEHRU PALACE	1
VIRAR	1
VRCE	1

16.Give maximum loan from branch VRCE

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

+ Options

MAX(AMOUNT)
1000.00

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));
```

+ Options

COUNT(DISTINCT (CNAME))
6

**EXPERIMENT NO.6 : 10/05/2021**

**SET OPERATIONS**

- 1.
2. List all the customers who are both depositors and borrower

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

+ Options
CNAME
ANIL
SUNIL
MEHUL
MADHURI
PRAMOD
SANDIP
SHIVANI
KRANTI
MINU

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');

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');

CNAME
MADHURI

5. List all the depositors living in city NAGPUR

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

+ Options

CNAME

MADHURI

PRAMOD

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');
```

CNAME

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');
```

CITY

Delete NAGPUR

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'));
```

CITY

Delete NAGPUR

## 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;
```

CNAME	BNAME	CNAME	CITY	CITY	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;
```

+ Options	
CNAME	CITY
KRANTI	BOMBAY
MADHURI	NAGPUR
NAREN	BOMBAY
PRAMOD	NAGPUR
SHIVANI	BOMBAY
SUNIL	DELHI

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;
```

	CNAME
ete	MADHURI
ete	PRAMOD



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;
```

+ Options

CNAME	AMOUNT	CNAME	AMOUNT
MEHUL	5000.00	MEHUL	3500.00
PRAMOD	8000.00	PRAMOD	3000.00
KRANTI	3000.00	KRANTI	5000.00

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');
```

\_\_\_\_\_

CNAME
SUNIL

delete

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');
```

\_\_\_\_\_

CNAME	AMOUNT
-------	--------

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'));
```

CNAME

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;
```

+ Options

CITY	CITY
BANGALORE	NAGPUR

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');
```

CITY

Delete

NAGPUR

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';
```

	CNAME	CITY
<div> <div>Edit</div> <div>Copy</div> <div>Delete</div> </div>	ANIL	CALCUTTA
<div> <div>Edit</div> <div>Copy</div> <div>Delete</div> </div>	SUNIL	DELHI