

EXPERIMENT NO. 5 : 10/05/2021

AGGREGATE FUNCTIONS

1. List total loan

SELECT cname, sum(AMOUNT) from borrow GROUP by cname

cname	sum(AMOUNT)
ANIL	1000.00
KRANTI	3000.00
MADHURI	2000.00
MEHUL	5000.00
PRAMOD	8000.00
SUNIL	3000.00

2. List total deposit

SELECT cname, bname, sum(AMOUNT) as Total FROM deposit group by CNAME

cname	bname	Total
ANIL	VRCE	1000.00
KRANTI	NEHRU PALACE	5000.00
MADHURI	CHANDNI	1200.00
MEHUL	KAROLBAGH	3500.00
MINU	POWAI	7000.00
PRAMOD	MG ROAD	3000.00
SANDIP	ANDHERI	2000.00
SHIVANI	VIRAR	1000.00
SUNIL	AJNI	500.00

3. List total loan taken from KAROLBAGH branch

SELECT sum(amount) as Total_Loan from borrow where BNAME='KAROLBAGH'

Total_Loan

NULL

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

SELECT CNAME, SUM(AMOUNT) from deposit WHERE ADATE>'01-01-1996'

CNAME	SUM(AMOUNT)
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ANIL	21200.00
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5. List total deposit of customers living in city NAGPUR

SELECT sum(AMOUNT) as Total_deposit FROM deposit d, customer c where c.cname=d.CNAME and c.city='nagpur'

Total_deposit

4200.00

6. List maximum deposit of customer living in Bombay

SELECT MAX(AMOUNT) as Maximum_deposit FROM deposit d, customer c where c.cname=d.CNAME and c.city='bombay'

Maximum_deposit

5000.00

7. List total deposit of customer having branch in BOMBAY

SELECT SUM(amount) from deposit,branch where CITY='bombay'

SUM(amount)

48400.00

8. Count total number of branch cities

SELECT COUNT(DISTINCT(city)) from branch

COUNT(DISTINCT(city))

4

9. Count total number of customers cities

SELECT COUNT(CITY) FROM customer

COUNT(CITY)

10

10. Give branch names and branch wise deposit

SELECT bname, SUM(AMOUNT) FROM deposit GROUP BY bname

bname	SUM(AMOUNT)
AJNI	500.00
ANDHERI	2000.00
CHANDNI	1200.00
KAROLBAGH	3500.00
MG ROAD	3000.00
NEHRU PALACE	5000.00
POWAI	7000.00
VIRAR	1000.00
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

CITY	SUM(D1.AMOUNT)
BARODA	3500.00
BOMBAY	6000.00
CALCUTTA	1000.00
DELHI	500.00
NAGPUR	4200.00
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;

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

count(cname)

14. Count total number of depositors branch wise

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

bname	count(*)
AJNI	1
ANDHERI	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
```

bname	count(*)
AJNI	1
ANDHERI	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';
```

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))
```

COUNT(DISTINCT (CNAME))

6

EXPERIMENT NO. 6: 10/05/2021

SET OPERATIONS

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

```
SELECT CNAME FROM DEPOSIT WHERE NOT EXISTS(SELECT CNAME FROM BORROW)
```

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

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

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';
```

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');
```

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
NAGPUR
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
NAGPUR
NAGPUR

EXPERIMENT NO. 7: 10/05/2021

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
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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;
```

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
MADHURI
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;

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

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
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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
MADHURI
PRAMOD

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;
```

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
NAGPUR
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
ANIL	CALCUTTA
SUNIL	DELHI