

EXPERIMENT 05: AGGREGATE FUNCTIONS**1. List total loan****QUERY**

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

OUTPUT

adbms

- New
- borrow
- branch
- customer
- deposit
- db
- db1
- eloan
- homecare
- information_schema
- liba
- mysql

Showing rows 0 - 0 (1 total, Query took 0.0625 seconds.)

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

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

+ Options

SUM(AMOUNT)
22000.00

2. List total deposit**QUERY**

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

OUTPUT

adbms

- New
- borrow
- branch
- customer
- deposit
- db
- db1
- eloan
- homecare
- information_schema
- liba
- mysql
- performance_schema
- phpmyadmin

Showing rows 0 - 0 (1 total, Query took 0.0021 seconds.)

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

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

+ Options

SUM(AMOUNT)
24200.00

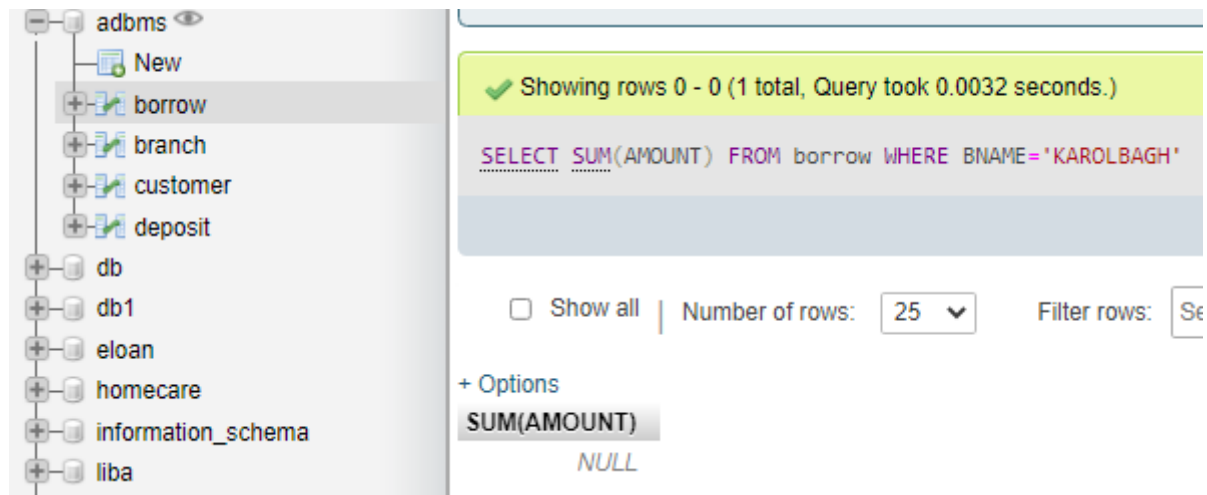
☐ Show all | Number of rows: 25 | Filter rows: Search

3. List total loan taken from KAROLBAGH branch

QUERY

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

OUTPUT



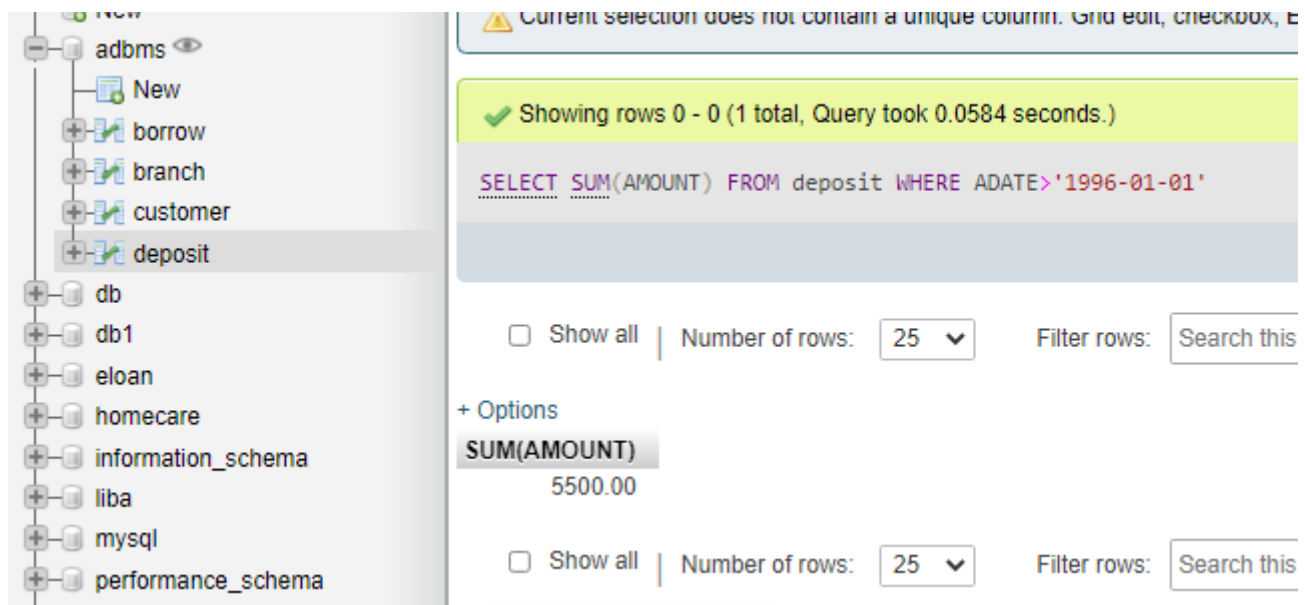
The screenshot shows a database management tool interface. On the left, a tree view displays the database structure with 'adbms' as the root, containing 'New' and several tables: 'borrow', 'branch', 'customer', 'deposit', 'db', 'db1', 'eloan', 'homecare', 'information_schema', and 'liba'. The 'borrow' table is selected. On the right, a query editor shows the SQL query: `SELECT SUM(AMOUNT) FROM borrow WHERE BNAME='KAROLBAGH';`. Below the query, a status bar indicates 'Showing rows 0 - 0 (1 total, Query took 0.0032 seconds.)'. A table of results is displayed with one column, 'SUM(AMOUNT)', and one row containing the value 'NULL'. The interface also includes options to 'Show all', 'Number of rows' (set to 25), and 'Filter rows'.

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

QUERY

```
SELECT SUM(AMOUNT) FROM deposit WHERE ADATE>'1996-01-01';
```

OUTPUT



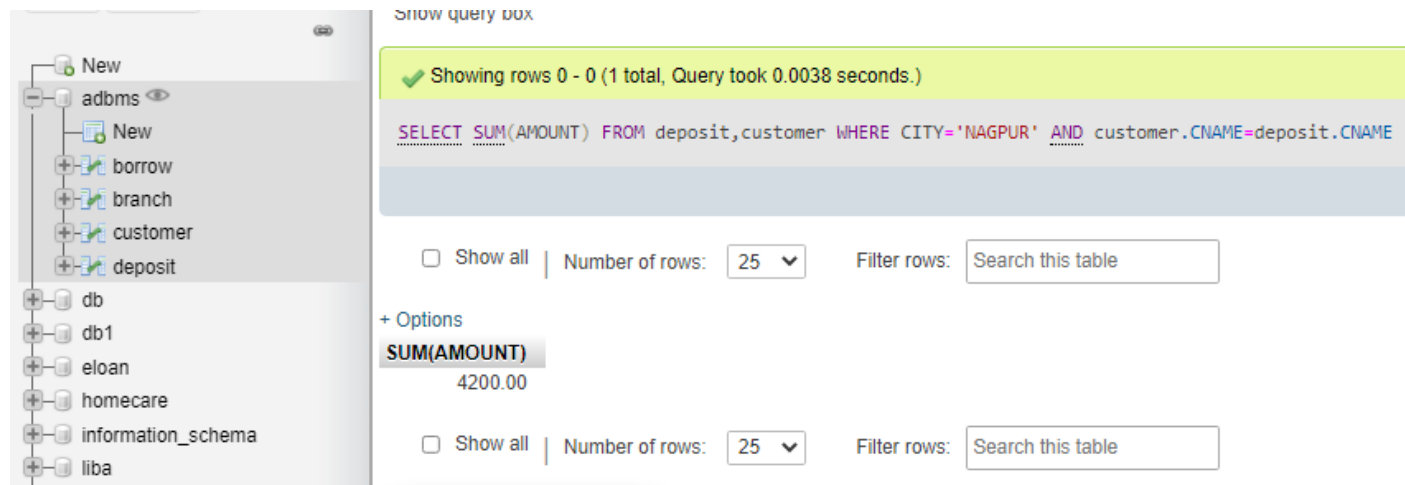
The screenshot shows the same database management tool interface. The 'deposit' table is now selected in the tree view. The query editor shows the SQL query: `SELECT SUM(AMOUNT) FROM deposit WHERE ADATE>'1996-01-01';`. A warning message at the top states: 'Current selection does not contain a unique column. Grid edit, checkbox, E'. The status bar indicates 'Showing rows 0 - 0 (1 total, Query took 0.0584 seconds.)'. The table of results shows one column, 'SUM(AMOUNT)', with a value of '5500.00'. The interface also includes options to 'Show all', 'Number of rows' (set to 25), and 'Filter rows'.

5. List total deposit of customers living in city NAGPUR

QUERY

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

OUTPUT



The screenshot shows a database query interface. On the left is a tree view of the database structure. The main area displays the query results. A green status bar at the top indicates "Showing rows 0 - 0 (1 total, Query took 0.0038 seconds.)". Below this, the SQL query is shown: `SELECT SUM(AMOUNT) FROM deposit, customer WHERE CITY='NAGPUR' AND customer.CNAME=deposit.CNAME`. The result is displayed in a table with one row:

SUM(AMOUNT)
4200.00

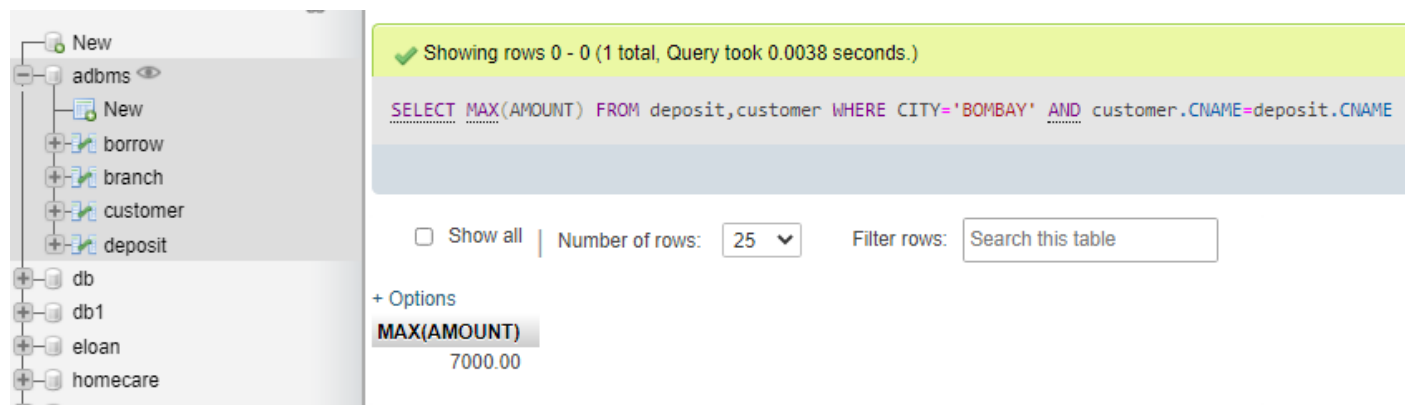
. Below the table are controls for "Show all", "Number of rows" (set to 25), and "Filter rows" (Search this table).

6. List maximum deposit of customer living in Bombay

QUERY

```
SELECT      MAX(AMOUNT)      FROM      deposit, customer      WHERE      CITY='BOMBAY'      AND      customer.CNAME=deposit.CNAME
```

OUTPUT



The screenshot shows a database query interface. On the left is a tree view of the database structure. The main area displays the query results. A green status bar at the top indicates "Showing rows 0 - 0 (1 total, Query took 0.0038 seconds.)". Below this, the SQL query is shown: `SELECT MAX(AMOUNT) FROM deposit, customer WHERE CITY='BOMBAY' AND customer.CNAME=deposit.CNAME`. The result is displayed in a table with one row:

MAX(AMOUNT)
7000.00

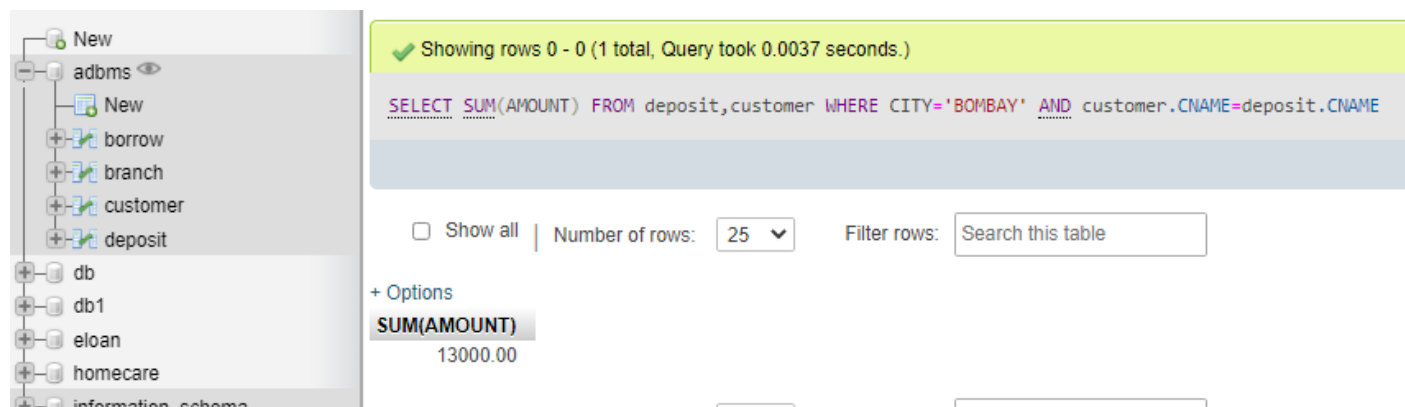
. Below the table are controls for "Show all", "Number of rows" (set to 25), and "Filter rows" (Search this table).

7. List total deposit of customer having branch in BOMBAY

QUERY

```
SELECT      SUM(AMOUNT)      FROM      deposit, customer      WHERE      CITY='BOMBAY'      AND      customer.CNAME=deposit.CNAME;
```

OUTPUT



The screenshot shows a database query interface. On the left is a tree view of the database structure. The main area displays the query results. A green status bar at the top indicates "Showing rows 0 - 0 (1 total, Query took 0.0037 seconds.)". Below this, the SQL query is shown: `SELECT SUM(AMOUNT) FROM deposit, customer WHERE CITY='BOMBAY' AND customer.CNAME=deposit.CNAME`. The result is displayed in a table with one row:

SUM(AMOUNT)
13000.00

. Below the table are controls for "Show all", "Number of rows" (set to 25), and "Filter rows" (Search this table).

8. Count total number of branch cities

QUERY

SELECT COUNT(DISTINCT CITY) FROM branch;

OUTPUT

The screenshot shows a database management tool interface. On the left, a tree view displays the database structure, with the 'branch' table selected under the 'adbms' schema. On the right, a message box states 'Current selection does not contain a unique column. Grid'. Below this, a yellow banner confirms 'Your SQL query has been executed successfully.' The SQL query 'SELECT COUNT(DISTINCT CITY) FROM branch' is displayed. Under the '+ Options' section, the query result is shown as 'COUNT(DISTINCT CITY)' with a value of '4'. At the bottom, a button labeled 'Query results operations' is visible.

9. Count total number of customers cities

QUERY

SELECT COUNT(DISTINCT CITY) FROM customer;

OUTPUT

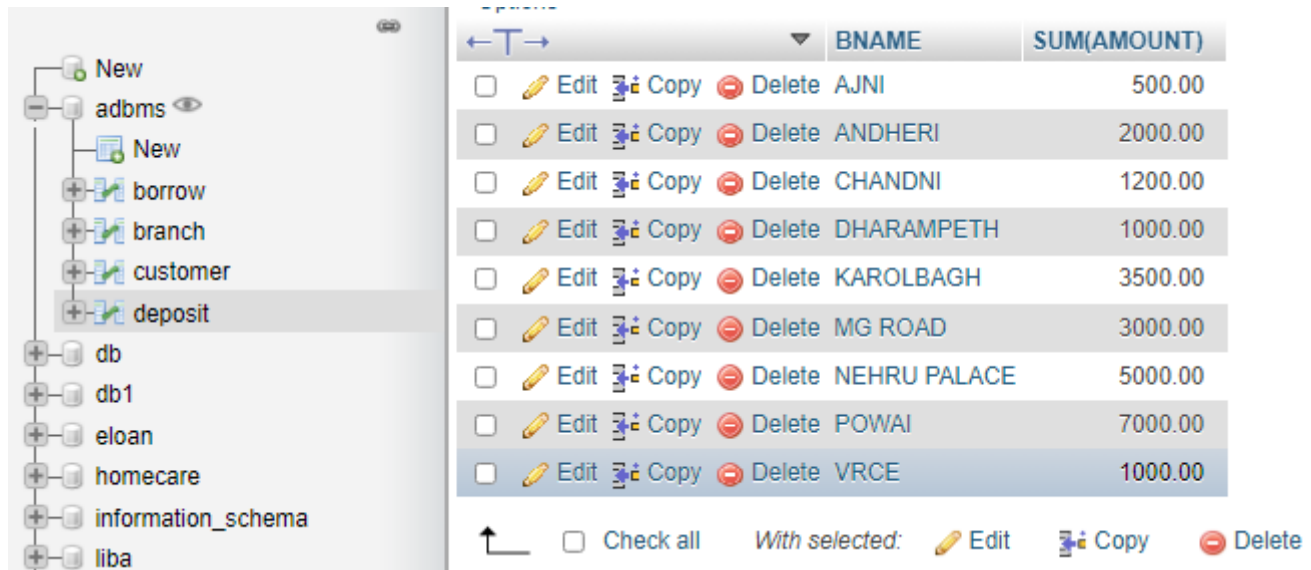
The screenshot shows the same database management tool interface. The 'customer' table is now selected in the tree view. The SQL query 'SELECT COUNT(DISTINCT CITY) FROM customer' is displayed. The query result under '+ Options' shows 'COUNT(DISTINCT CITY)' with a value of '7'. The 'Query results operations' button remains at the bottom.

10. Give branch names and branch wise deposit

QUERY

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

OUTPUT



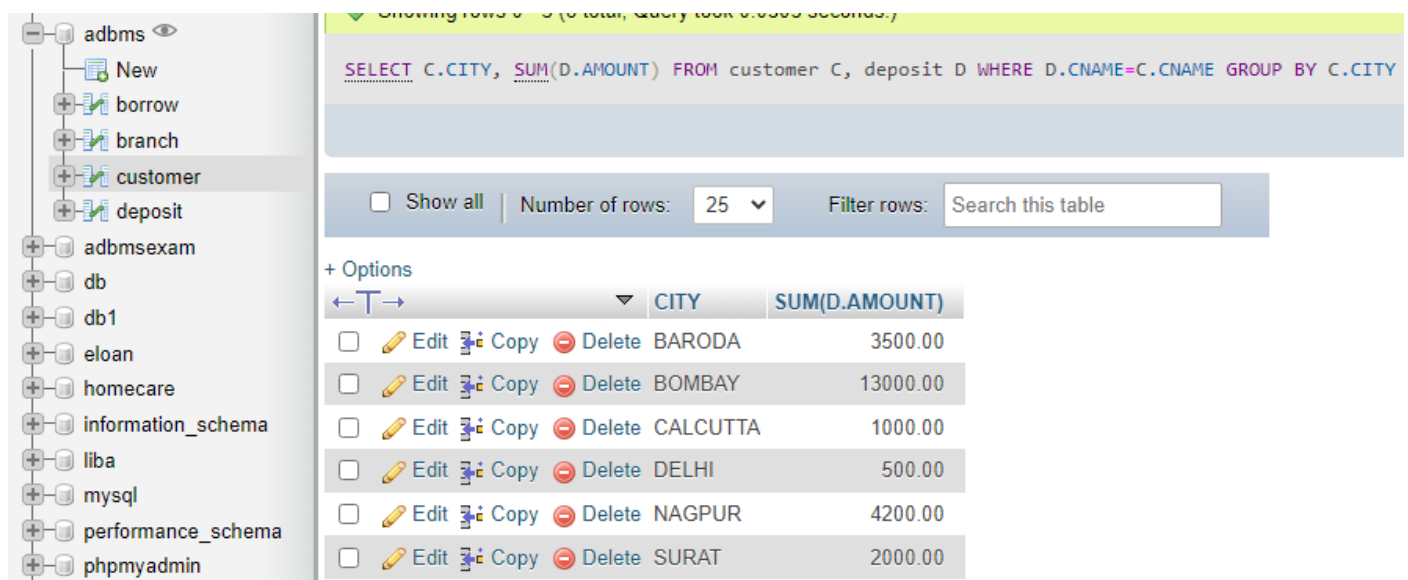
	BNAME	SUM(AMOUNT)
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	AJNI	500.00
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	ANDHERI	2000.00
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/>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

11. Give city wise name and branch wise deposit

QUERY

SELECT C.CITY, SUM(D.AMOUNT) FROM customer C, deposit D WHERE D.CNAME=C.CNAME GROUP BY C.CITY;

OUTPUT



Showing rows 1 - 6 (6 total, query took 0.000 seconds.)

SELECT C.CITY, SUM(D.AMOUNT) FROM customer C, deposit D WHERE D.CNAME=C.CNAME GROUP BY C.CITY

☐ Show all | Number of rows: 25 | Filter rows: Search this table

	CITY	SUM(D.AMOUNT)
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	BARODA	3500.00
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	BOMBAY	13000.00
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	CALCUTTA	1000.00
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	DELHI	500.00
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	NAGPUR	4200.00
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	SURAT	2000.00

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

QUERY

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

OUTPUT

BNAME	SUM(AMOUNT)
AJNI	10000.00
ANDHERI	4000.00
DHARAMPETH	22000.00
NEHRU PALACE	6000.00
VRCE	2000.00

13. Count total number of customers

QUERY

```
SELECT COUNT(CNAME)FROM customer;
```

OUTPUT

Your SQL query has been executed successfully.

```
SELECT COUNT(CNAME)FROM customer;
```

+ Options

COUNT(CNAME)
10

Query results operations

14. Count total number of depositors branch wise

QUERY

```
SELECT BNAME,COUNT(*) FROM deposit,customer WHERE deposit.CNAME=customer.CNAME GROUP BY BNAME;
```

OUTPUT

Showing rows 0 - 0 (0 total, Query took 0.0000 seconds.)

```
SELECT BNAME,COUNT(*) FROM deposit,customer WHERE deposit.CNAME=customer.CNAME GROUP BY BNAME;
```

+ Options

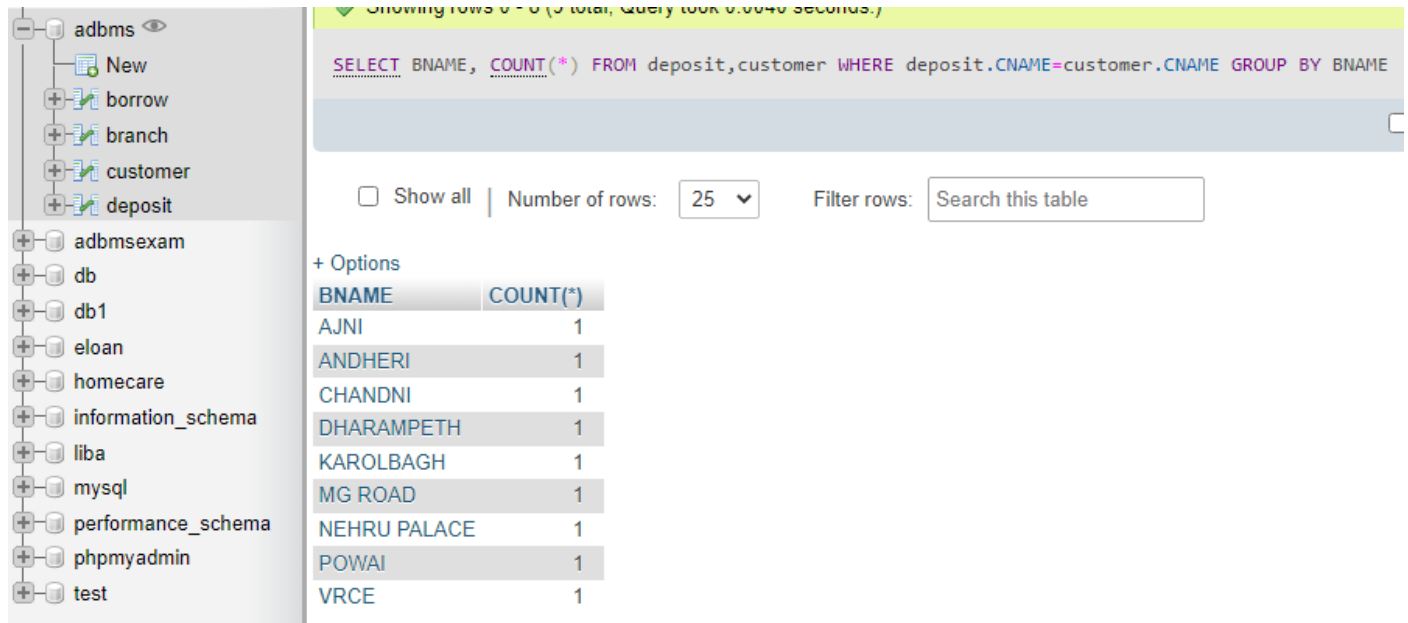
BNAME	COUNT(*)
AJNI	1
ANDHERI	1
CHANDNI	1
DHARAMPETH	1
KAROLBAGH	1
MG ROAD	1
NEHRU PALACE	1
POWAI	1
VRCE	1

15. Count total number of depositors branch wise

QUERY

```
SELECT BNAME, COUNT(*) FROM deposit, customer WHERE deposit.CNAME=customer.CNAME GROUP BY BNAME;
```

OUTPUT



Showing rows 0 - 0 (0 total, Query took 0.0040 seconds.)

```
SELECT BNAME, COUNT(*) FROM deposit, customer WHERE deposit.CNAME=customer.CNAME GROUP BY BNAME
```

☐ Show all | Number of rows: 25 | Filter rows: Search this table

+ Options

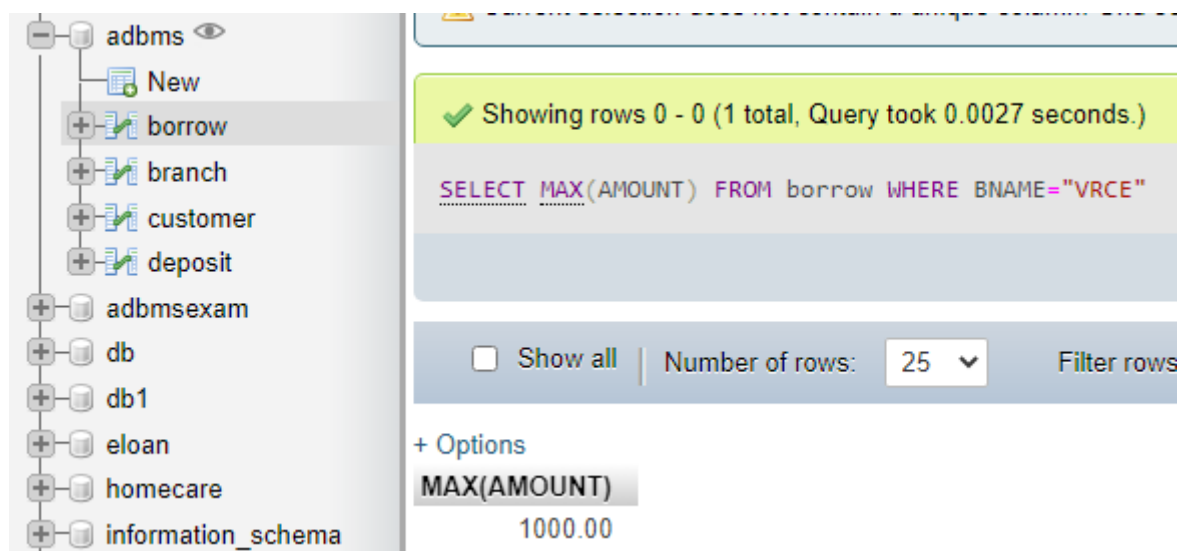
BNAME	COUNT(*)
AJNI	1
ANDHERI	1
CHANDNI	1
DHARAMPETH	1
KAROLBAGH	1
MG ROAD	1
NEHRU PALACE	1
POWAI	1
VRCE	1

16. Give maximum loan from branch VRCE

QUERY

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

OUTPUT



Showing rows 0 - 0 (1 total, Query took 0.0027 seconds.)

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

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

+ Options

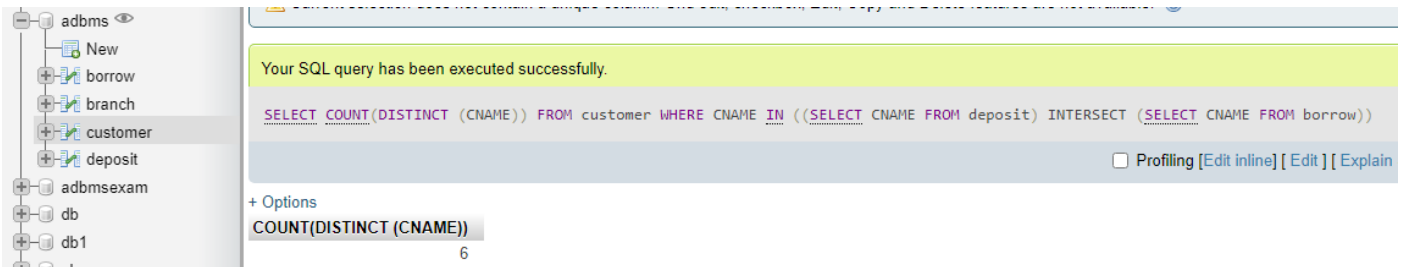
MAX(AMOUNT)
1000.00

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

QUERY

SELECT COUNT(DISTINCT (CNAME)) FROM customer WHERE CNAME IN ((SELECT CNAME FROM deposit) INTERSECT (SELECT CNAME FROM borrow));

OUTPUT



The screenshot displays a database management interface. On the left, a tree view shows a database named 'adbms' with several tables: 'New', 'borrow', 'branch', 'customer', 'deposit', 'adbmsexam', 'db', 'db1', and 'class'. The 'customer' table is selected. The main area shows a message: 'Your SQL query has been executed successfully.' Below this, the SQL query is displayed: `SELECT COUNT(DISTINCT (CNAME)) FROM customer WHERE CNAME IN ((SELECT CNAME FROM deposit) INTERSECT (SELECT CNAME FROM borrow));`. At the bottom, there is a section for 'Options' with a table showing the result of the query:

COUNT(DISTINCT (CNAME))
6