20MCA134-ADVANCED DBMS LAB

EXPERIMENTS

SUBMITTED BY,

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R MCA-2020-S2

ROLL NO : 42

SUBMITTED TO ,

LISHA MISS

Experiment No: 1 Date: 03/05/2021

Aim:

Create the following Tables

DEPOSIT

ACTNO VARCHAR2(5)   PRIMARY KEY , FIRST LETTER MUST START WITH 'D'

CNAME VARCHAR2(15)   FOREIGN KEY REFERENCES CUSTOMER

BNAME VARCHAR2(20)   FOREIGN KEY REFERENCES BRANCH

AMOUNT   NUMBER(8,2)   NOT NULL, CANNOT BE 0

ADATE DATE

QUERY

```
CREATE TABLE DEPOSITE(ACT_NO varchar(5) CHECK (ACT_NO LIKE 'D%'), PRIMARY KEY(ACT_NO), CUSTOMER_NAME varchar(15), FOREIGN KEY (CUSTOMER_NAME) REFERENCES customer(CUSTOMER_NAME), BRANCH_NAME varchar(20), FOREIGN KEY (BRANCH_NAME) REFERENCES branch(BRANCH_NAME), AMOUNT float(8,2) NOT NULL CHECK(AMOUNT>0), ACC_DATE date)
SELECT * FROM 'deposite'
```

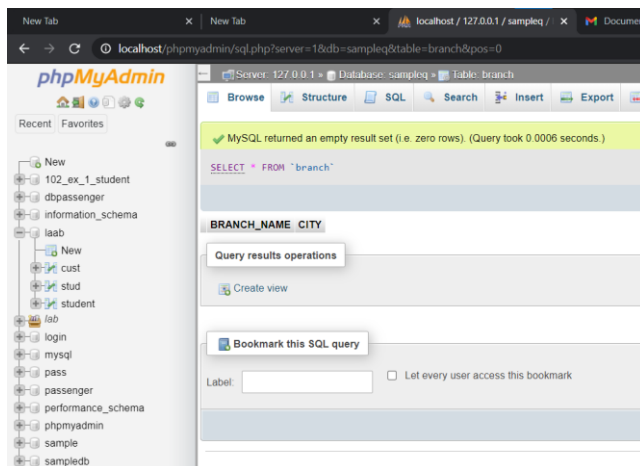### OUTPUT
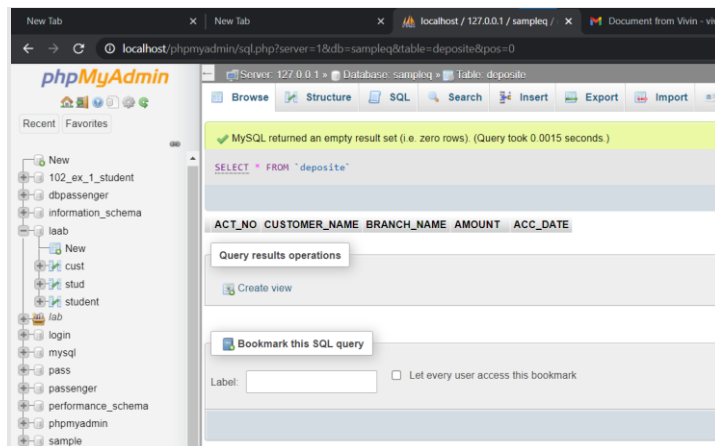
BRANCH

BNAME VARCHAR2(20) PRIMARY KEY

CITY   VARCHAR2(30) NOT NULL , any one of NAGPUR, DELHI, BANGALORE, BOMBAY

QUERY

```sql
CREATE TABLE branch(BRANCH_NAME varchar(20)PRIMARY KEY, CITY varchar(30) NOT NULL CHECK(CITY IN('NAGPUR','DELHI','BANGALORE','BOMBAY')))
SELECT * FROM 'branch'
```
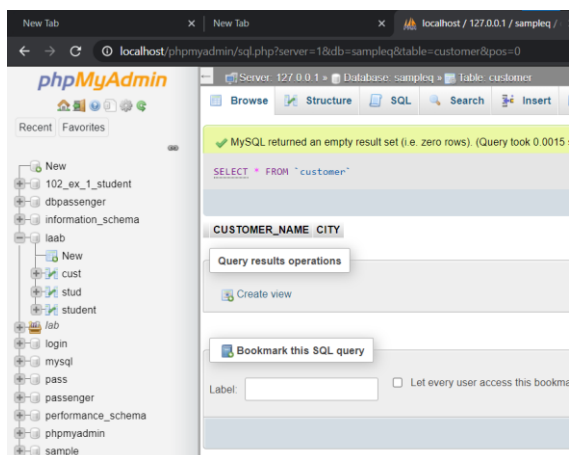
OUTPUT

CUSTOMER

CNAME VARCHAR2(15) PRIMARY KEY

CITY   VARCHAR2(20) NOT NULL ,

QUERY

```sql
CREATE TABLE CUSTOMER(CUSTOMER_NAME varchar(20) PRIMARY KEY, CITY varchar(30) NOT NULL)
SELECT * FROM 'customer'
```

OUTPUT

BORROW

LOANNO   VARCHAR2(8)   PRIMARY KEY / FIRST LETTER MUST START WITH 'L'

CNAME VARCHAR2(15)   FOREIGN KEY REFERENCES CUSTOMER

BNAME VARCHAR2(20)   FOREIGN KEY REFERENCES BRANCH

AMOUNT   NUMBER(8,2)   NOT NULL, CANNOT BE 0

QUERY

```
CREATE TABLE BORROW(LOAN_NO varchar(8) CHECK (LOAN_NO LIKE 'L%'), PRIMARY K
EY(LOAN_NO), CUSTOMER_NAME varchar(15), FOREIGN KEY(CUSTOMER_NAME) REFERENC
ES customer(CUSTOMER_NAME), BRANCH_NAME varchar(20), FOREIGN KEY(BRANCH_NAM
E) REFERENCES branch(BRANCH_NAME), AMOUNT float(8,2) NOT NULL CHECK(AMOUNT>
0))
SELECT * FROM borrow
```

OUTPUT
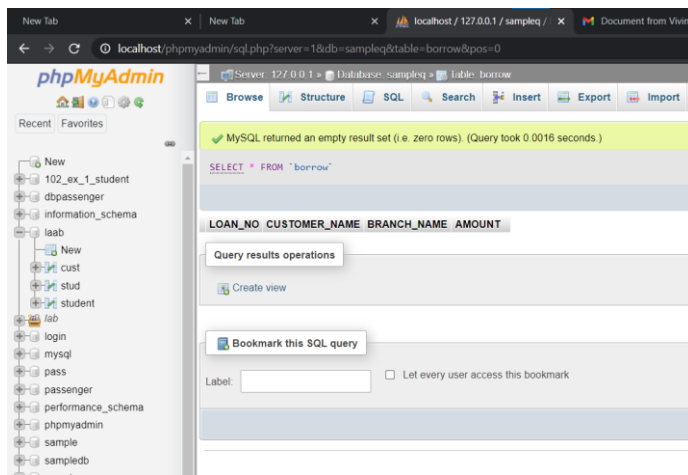
INSERTION OF VALUES

1. Inserting values to Branch

VRCE   NAGPUR

AJNI   NAGPUR

KAROLBAGH   DELHI

CHANDNI   DELHI

DHARAMPETH   NAGPUR

MG ROAD   BANGALORE

ANDHERI   BOMBAY
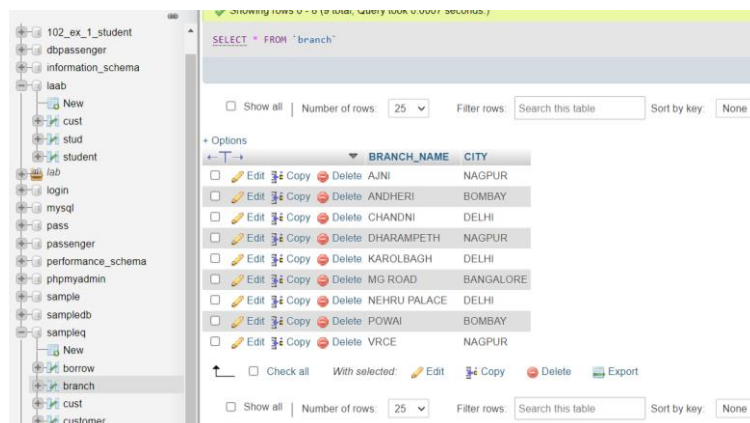
NEHRU PALACE DELHI

POWAI BOMBAY

QUERY

INSERT INTO branch VALUES('VRCE','NAGPUR');

INSERT INTO branch VALUES('AJNI','NAGPUR');

INSERT INTO branch VALUES('KAROLBAGH','DELHI');

INSERT INTO branch VALUES('CHANDNI','DELHI');

INSERT INTO branch VALUES('DHARAMPETH','NAGPUR');

INSERT INTO branch VALUES('MG ROAD','BANGALORE');

INSERT INTO branch VALUES('ANDHERI','BOMBAY');

INSERT INTO branch VALUES('NEHRU PALACE','DELHI');

INSERT INTO branch VALUES('POWAI','BOMBAY');

SELECT * FROM 'branch'

OUTPUT

2. Inserting values into Customer table

ANIL   CALCUTTA

SUNIL   DELHI

MEHUL BARODA

MANDAR   PATNA

MADHURI   NAGPUR

PRAMOD   NAGPUR

SANDIP SURAT

SHIVANI   BOMBAY

KRANTI BOMBAY

NAREN BOMBAY

QUERY

INSERT INTO customer VALUES('ANIL','CALCUTTA');

INSERT INTO customer VALUES('SUNIL','DELHI');

INSERT INTO customer VALUES('MEHUL','BARODA');

INSERT INTO customer VALUES('MANDAR','PATNA');

INSERT INTO customer VALUES('MADHURI','NAGPUR');

INSERT INTO customer VALUES('PRAMOD','NAGPUR');

INSERT INTO customer VALUES('SANDIP','SURAT');

INSERT INTO customer VALUES('SHIVANI','BOMBAY');

INSERT INTO customer VALUES('KRANTI','BOMBAY');

INSERT INTO customer VALUES('NAREN','BOMBAY');

SELECT * FROM 'customer'

OUTPUT
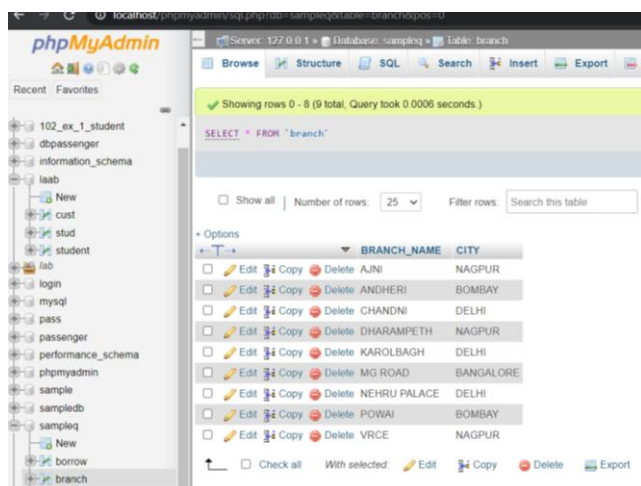
3. Inserting values into Deposite table
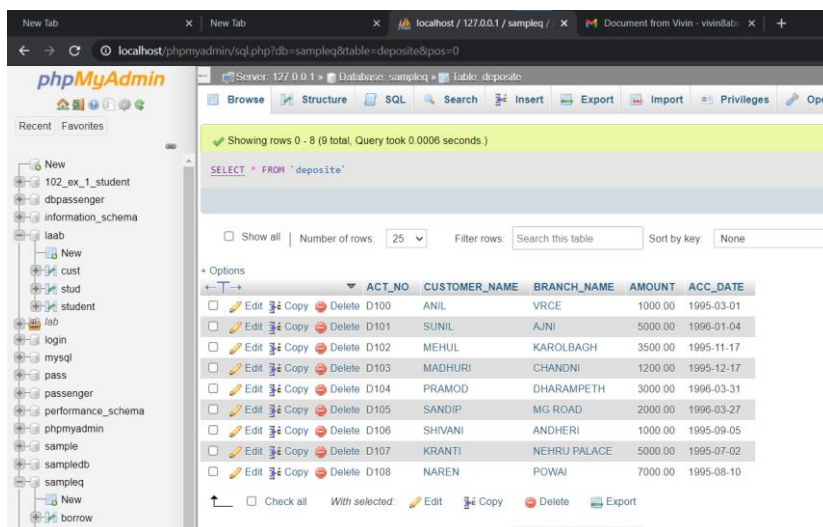
DEPOSITE

Actno	Cname	Bname	Amount	Adate
D100	ANIL	VRCE	1000.00	1-MAR-95
D101	SUNIL	ANJNI	500.00	4-JAN-96
D102	MEHUL	KAROLBAGH	3500.00	17-NOV-95
D104	MADHURI	CHANDNI	1200.00	17-DEC-95
D105	PRAMOD	MG ROAD	3000.00	27-MAR-96
D106	SANDIP	ANDHERI	2000.00	31-MAR-96
D107	SHIVANI	VIRAR	1000.00	5-SEP-95
D108	KRANTI	NEHRU PLACE	5000.00	2-JUL-95
D109	MINU	POWAI	7000.00	10-AUG-95

QUERY

INSERT INTO deposite VALUES('D100','ANIL','VRCE',1000,'1995-03-01');

INSERT INTO deposite VALUES('D101','SUNIL','AJNI',5000,'1996-01-04');

INSERT INTO deposite VALUES('D102','MEHUL','KAROLBAGH',3500,'1995-11-17');

INSERT INTO deposite VALUES('D103','MADHURI','CHANDNI',1200,'1995-12-17');

INSERT INTO deposite VALUES('D104','PRAMOD','DHARAMPETH',3000,'1996-03-31');

INSERT INTO deposite VALUES('D105','SANDIP','MG ROAD',2000,'1996-03-27');

INSERT INTO deposite VALUES('D106','SHIVANI','ANDHERI',1000,'1995-09-05');

INSERT INTO deposite VALUES('D107','KRANTI','NEHRU PALACE',5000,'1995-07-02');

INSERT INTO deposite VALUES('D108','NAREN','POWAI',7000,'1995-08-10');

SELECT * FROM 'deposite'

OUTPUT

4. Inserting values into borrow table
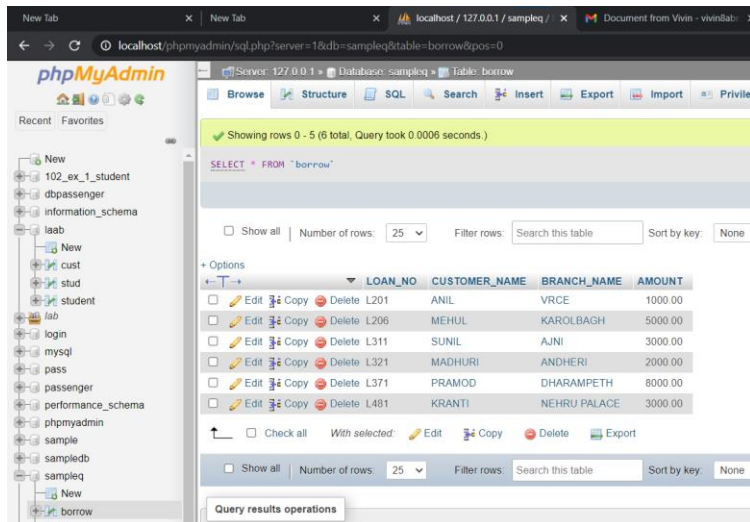
L201   ANIL   VRCE   1000.00

L206   MEHUL   AJNI   5000.00

L311   SUNIL   DHARAMPETH   3000.00

L321   MADHURI   ANDHERI   2000.00

L371   PRAMOD   VIRAR   8000.00

L481   KRANTI NEHRU PLACE   3000.00

QUERY

INSERT INTO borrow VALUES('L201','ANIL','VRCE',1000);

INSERT INTO borrow VALUES('L206','MEHUL','KAROLBAGH',5000);

INSERT INTO borrow VALUES('L311','SUNIL','AJNI',3000);

INSERT INTO borrow VALUES('L321','MADHURI','ANDHERI',2000);

INSERT INTO borrow VALUES('L371','PRAMOD','DHARAMPETH',8000);

INSERT INTO borrow VALUES('L481','KRANTI','NEHRU PALACE',3000);

SELECT * FROM 'borrow'
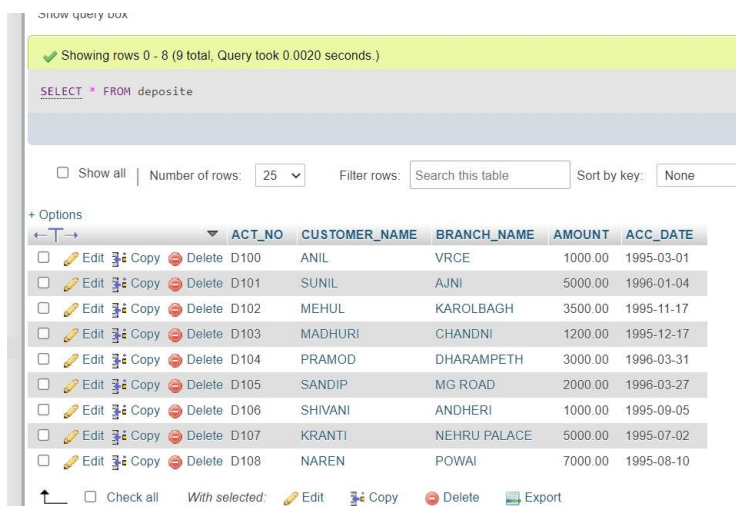
OUTPUT

EXPERIMENT NO. 2: SELECTING DATA FROM SINGLE TABLE

1.List all data from table deposite

QUERY

```
SELECT * FROM deposite
```

OUTPUT

2.List all data from borrow

QUERY

SELECT * FROM borrow

OUTPUT

Show query box

✔ Showing rows 0 - 5 (6 total, Query took 0.0018 seconds.)

SELECT * FROM borrow

☐ Show all | Number of rows: 25 ⌄   Filter rows: Search this table   Sort by key: None

+ Options

				LOAN_NO	CUSTOMER_NAME	BRANCH_NAME	AMOUNT
☐	🖉 Edit	⚏ Copy	⊖ Delete	L201	ANIL	VRCE	1000.00
☐	🖉 Edit	⚏ Copy	⊖ Delete	L206	MEHUL	KAROLBAGH	5000.00
☐	🖉 Edit	⚏ Copy	⊖ Delete	L311	SUNIL	AJNI	3000.00
☐	🖉 Edit	⚏ Copy	⊖ Delete	L321	MADHURI	ANDHERI	2000.00
☐	🖉 Edit	⚏ Copy	⊖ Delete	L371	PRAMOD	DHARAMPETH	8000.00
☐	🖉 Edit	⚏ Copy	⊖ Delete	L481	KRANTI	NEHRU PALACE	3000.00

↑ ☐ Check all   With selected: 🖉 Edit   ⚏ Copy   ⊖ Delete   🔛 Export

☐ Show all | Number of rows: 25 ⌄   Filter rows: Search this table   Sort by key: None

3.List all data from customer

QUERY

SELECT * FROM customer

OUTPUT

Show query box

✔ Showing rows 0 - 9 (10 total, Query took 0.0020 seconds.)

SELECT * FROM customer

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

+ Options

				CUSTOMER_NAME	CITY
☐	🖉 Edit	⚏ Copy	⊖ Delete	ANIL	CALCUTTA
☐	🖉 Edit	⚏ Copy	⊖ Delete	KRANTI	BOMBAY
☐	🖉 Edit	⚏ Copy	⊖ Delete	MADHURI	NAGPUR
☐	🖉 Edit	⚏ Copy	⊖ Delete	MANDAR	PATNA
☐	🖉 Edit	⚏ Copy	⊖ Delete	MEHUL	BARODA
☐	🖉 Edit	⚏ Copy	⊖ Delete	NAREN	BOMBAY
☐	🖉 Edit	⚏ Copy	⊖ Delete	PRAMOD	NAGPUR
☐	🖉 Edit	⚏ Copy	⊖ Delete	SANDIP	SURAT
☐	🖉 Edit	⚏ Copy	⊖ Delete	SHIVANI	BOMBAY
☐	🖉 Edit	⚏ Copy	⊖ Delete	SUNIL	DELHI

↑ ☐ Check all   With selected: 🖉 Edit   ⚏ Copy   ⊖ Delete   🔛 Export

4.List all data from branch

QUERY

SELECT * FROM branch

OUTPUT

5.Give account no and amount of deposite

QUERY

SELECT ACT_NO, AMOUNT FROM deposite

OUTPUT

6.Give customer name and account no of depositors

QUERY

SELECT CUSTOMER_NAME,ACT_NO FROM deposite
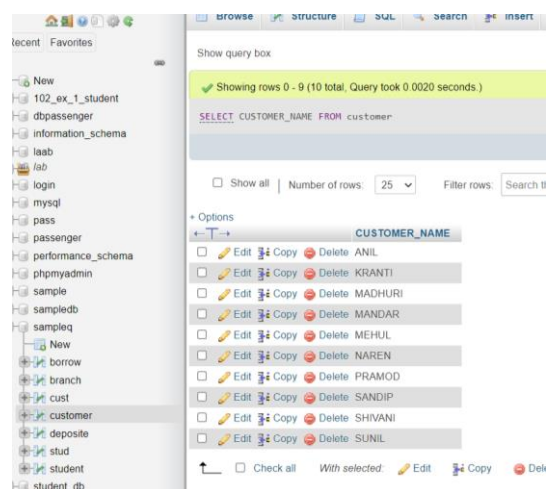
OUTPUT

7.Give name of customers

QUERY

SELECT CUSTOMER_NAME FROM customer

OUTPUT

8.Give name of branches

QUERY

```
SELECT BRANCH_NAME FROM branch
```

OUTPUT

9.Give name of borrows

QUERY

```
SELECT CUSTOMER_NAME FROM borrow
```

OUTPUT

10. Give names of customer living in city Nagpur

QUERY

```sql
SELECT CUSTOMER_NAME FROM customer WHERE CITY='NAGPUR'
```

OUTPUT

11. Give names of depositors having amount greater than 4000

QUERY

```sql
SELECT CUSTOMER_NAME FROM deposite WHERE AMOUNT>4000
```

OUTPUT

12.Give account date of Anil

QUERY

`SELECT ACC_DATE FROM deposite WHERE CUSTOMER_NAME='ANIL'`
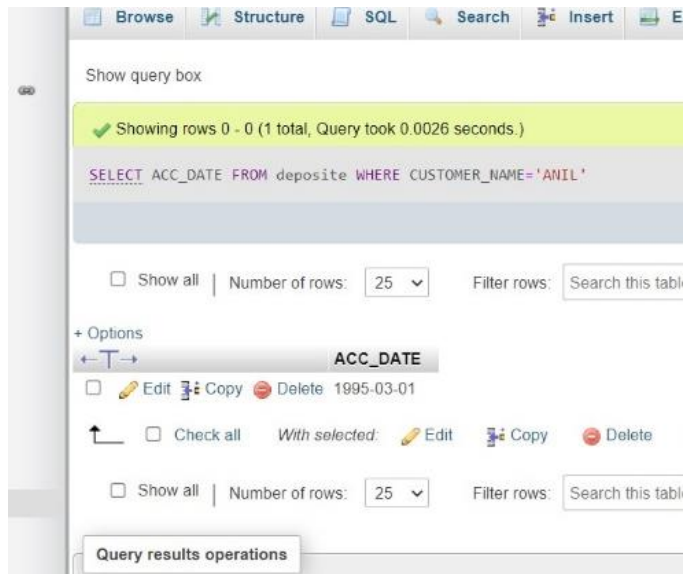
OUTPUT

13. Give name of all branches located in Bombay

QUERY

`SELECT BRANCH_NAME FROM branch WHERE CITY='BOMBAY'`

OUTPUT
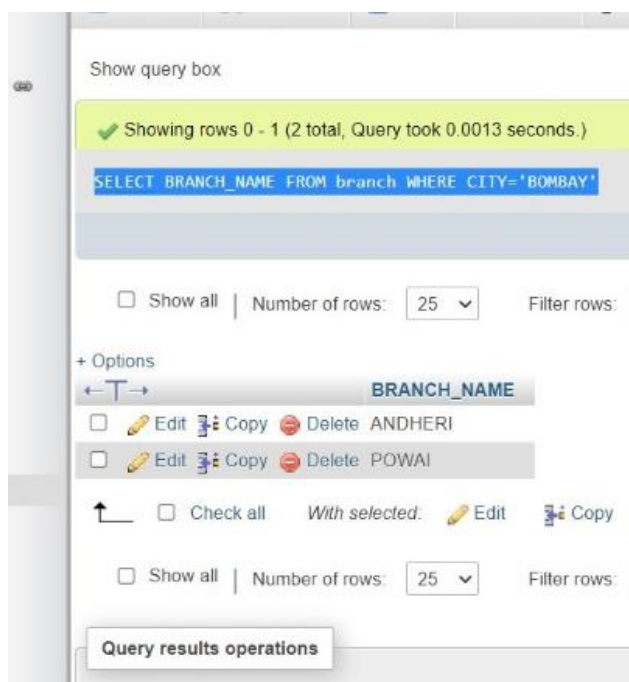
14. Give name of borrower having loan number l205

QUERY

```sql
SELECT CUSTOMER_NAME FROM borrow WHERE LOAN_NO='L205'
```

OUTPUT

Show query box

✔ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0012 seconds.)

SELECT CUSTOMER_NAME FROM borrow WHERE LOAN_NO='L205'

CUSTOMER_NAME

Query results operations

📄 Create view

📑 Bookmark this SQL query

Label: ☐ ☐ Let every user access this bookmark
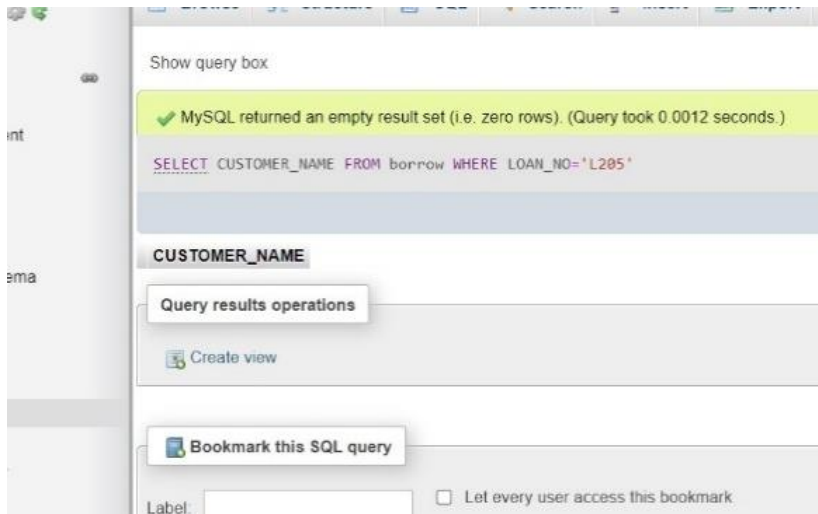
15. Give names of depositors having account at VRCE

QUERY

```sql
SELECT CUSTOMER_NAME FROM deposite WHERE BRANCH_NAME='VRCE'
```

OUTPUT

✔ Showing rows 0 - 0 (1 total, Query took 0.0018 seconds.)

SELECT CUSTOMER_NAME FROM deposite WHERE BRANCH_NAME='VRCE'

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

+ Options
← T →   **CUSTOMER_NAME**
☐ 🖉 Edit 📋 Copy ⊝ Delete ANIL

↑ ☐ Check all With selected: 🖉 Edit 📋 Copy ⊝ Delete 📤 Export

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

Query results operations

🖨 Print 📋 Copy to clipboard 📤 Export 📊 Display chart 📄 Create view

📑 Bookmark this SQL query

16. Give names of all branched located in city Delhi

QUERY

```sql
SELECT BRANCH_NAME FROM branch WHERE CITY='DELHI'
```

OUTPUT
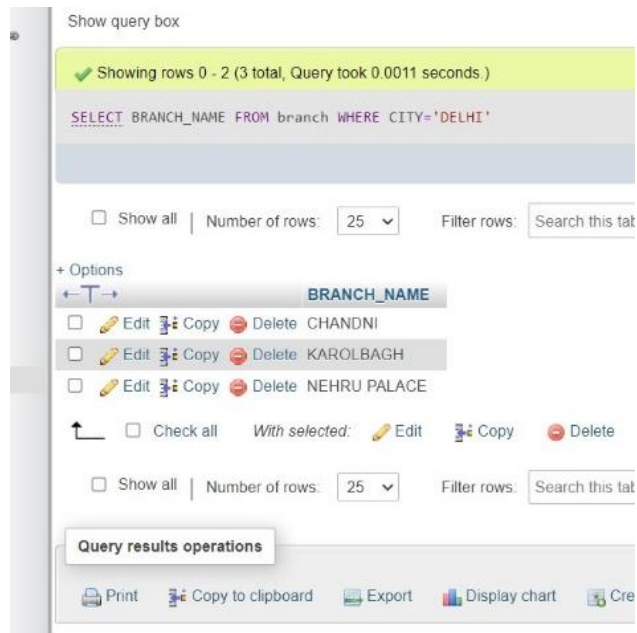
17. Give name of the customers who opened account date '1-12-96'

QUERY

```sql
SELECT CUSTOMER_NAME FROM deposite WHERE ACC_DATE='1996-12-01'
```

OUTPUT
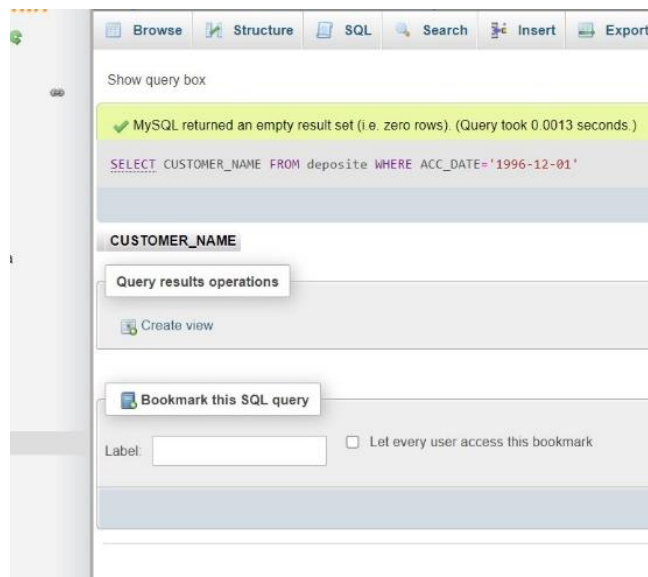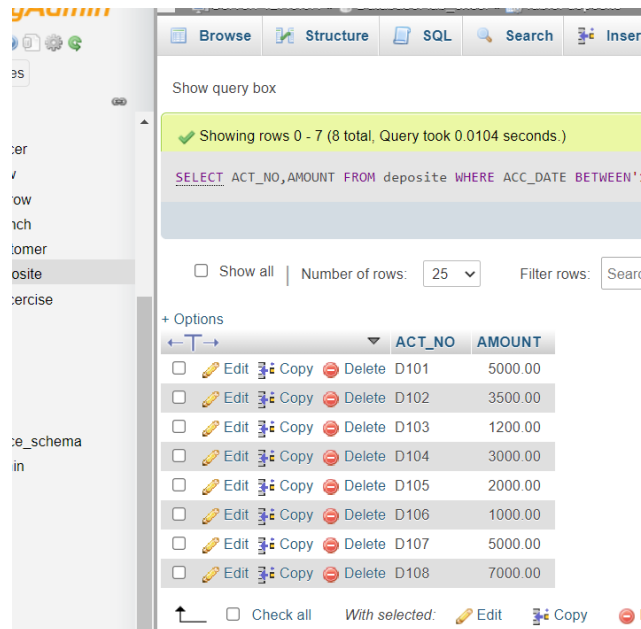
18.Give account no and deposit amount of customers having account opened between dates '1-12-96' and '1-5-96'

QUERY

SELECT ACT_NO,AMOUNT FROM deposite WHERE ACC_DATE BETWEEN'1995-05-01'AND'1996-12-01'
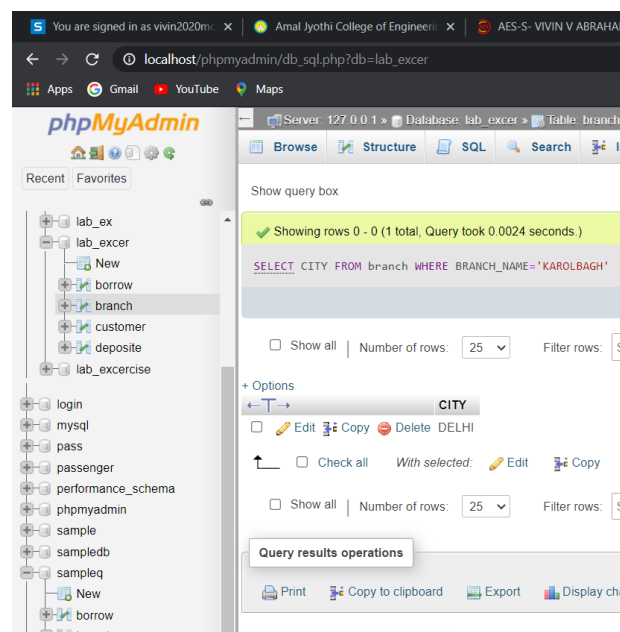
OUTPUT

19.Give name of the city where branch KAROLBAGH is located

QUERY

SELECT CITY FROM branch WHERE BRANCH_NAME='KAROLBAGH'

OUTPUT

20.Give details of customer ANIL

QUERY

```
SELECT * FROM customer JOIN borrow ON customer.CUSTOMER_NAME=borrow.CUSTOME
R_NAME JOIN deposite ON deposite.CUSTOMER_NAME=borrow.CUSTOMER_NAME WHERE c
ustomer.CUSTOMER_NAME='ANIL'
```

OUTPUT

EXPERIMENT NO. 3: DDL COMMANDS and CONSTRAINTS

1.Create a table emp with attributes empno number(4)as primary key, ename char(10),hiredate, salary, commission

insert 5 rows of data

101	Ramesh	17-Jan-1980	5000	;
102	Ajay	05-Jul-1985	5000	500;
103	Ravi	12-Aug-1981	1500	;
104	Nikesh	03-Mar-1983	3000	700;
105	Ravi	05-jul-1985	3000;	

QUERY

```
CREATE TABLE EMPLOYEE(EMP_NO int(4) PRIMARY KEY, EMPOY_NAME char(10), HIRE_
DATE date, SALARY float(7,2), COMMISSION float(5,2))


INSERT INTO employee VALUES(101,'RAMESH','1980-01-17',5000,'');

INSERT INTO employee VALUES(102,'AJAY','1985-07-05',5000,500);

INSERT INTO employee VALUES(103,'RAVI','1981-08-12',1500,'');

INSERT INTO employee VALUES(104,'NIKESH','1983-03-03',3000,700);

INSERT INTO employee VALUES(105,'RAVI','1985-07-05',3000,'')
```

OUTPUT

2.Modifying the structure of tables

A.Add new columns: sal number(7,2)

QUERY

```
ALTER TABLE employee ADD sal numeric(7,2)
```

OUTPUT

B.Dropping a column from a table: sal

QUERY

```
ALTER TABLE employee DROP sal
```

OUTPUT

C.Modifying existing column :ename varchar2(15)

QUERY

ALTER TABLE employee MODIFY EMPOY_NAME varchar(15)
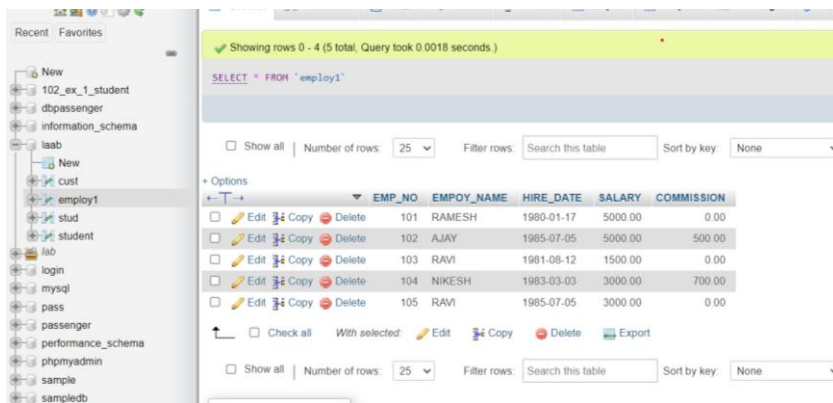
OUTPUT

D.Renaming the tables: emp to emp1

QUERY

ALTER TABLE employee RENAME to employ1

OUTPUT

E. Truncating the tables:emp1

QUERY

TRUNCATE TABLE employ1

OUTPUT

F. Destroying tables:em

QUERY

DROP TABLE employ1

OUTPUT