

Tên: Trần Nguyễn Quốc Cường

Lớp: SE1709

Bài tập SQL

1.

Code:

```
CREATE TABLE WORKER (  
    WORKER_ID INT NOT NULL PRIMARY KEY,  
    FIRST_NAME CHAR(25),  
    LAST_NAME CHAR(25),  
    SALARY INT(15),  
    JOINING_DATE DATETIME,  
    DEPARTMENT CHAR(25)  
);
```

insert into WORKER

(WORKER_ID, FIRST_NAME, LAST_NAME, SALARY, JOINING_DATE, DEPARTMENT)
values

```
(001, 'Monika', 'Arora', 100000, '2014-02-20 09:00:00', 'HR'),  
(002, 'Niharika', 'Verma', 80000, '2014-06-11 09:00:00', 'Admin'),  
(003, 'Vishal', 'Singhal', 300000, '2014-02-20 09:00:00', 'HR'),  
(004, 'Amitabh', 'Singh', 500000, '2014-02-20 09:00:00', 'Admin'),  
(005, 'Vivek', 'Bhati', 500000, '2014-06-11 09:00:00', 'Admin'),  
(006, 'Vipul', 'Diwan', 200000, '2014-06-11 09:00:00', 'Account'),  
(007, 'Satish', 'Kumar', 75000, '2014-01-20 09:00:00', 'Account'),  
(008, 'Geetika', 'Chauhan', 90000, '2014-04-11 09:00:00', 'Admin');
```

```
CREATE TABLE TITLE (  
    WORKER_REF_ID INT,  
    WORKER_TITLE CHAR(25),  
    AFFECTED_FROM DATETIME,  
    FOREIGN KEY (WORKER_REF_ID) REFERENCES Worker(WORKER_ID)  
    ON DELETE CASCADE  
);
```

insert into TITLE

(WORKER_REF_ID, WORKER_TITLE, AFFECTED_FROM) values

(1, 'Manager', '2016-02-20 00:00:00'),
(2, 'Executive', '2016-06-11 00:00:00'),
(8, 'Executive', '2016-06-11 00:00:00'),
(5, 'Manager', '2016-06-11 00:00:00'),
(4, 'Asst. Manager', '2016-06-11 00:00:00'),
(7, 'Executive', '2016-06-11 00:00:00'),
(6, 'Lead', '2016-06-11 00:00:00'),
(3, 'Lead', '2016-06-11 00:00:00');

CREATE TABLE BONUS (

WORKER_REF_ID INT,

BONUS_DATE DATETIME,

BONUS_AMOUNT INT(10),

FOREIGN KEY (WORKER_REF_ID) REFERENCES Worker(WORKER_ID)

ON DELETE CASCADE

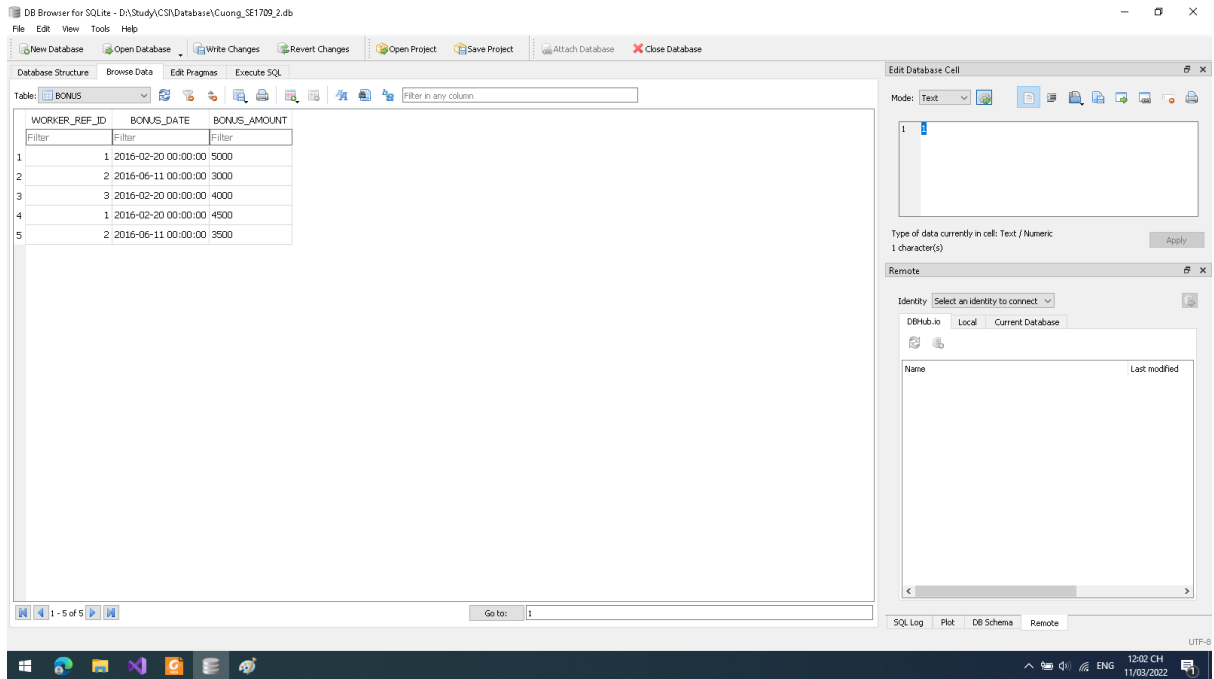
);

insert into BONUS

(WORKER_REF_ID, BONUS_DATE, BONUS_AMOUNT) values

(001, '2016-02-20 00:00:00', 5000),
(002, '2016-06-11 00:00:00', 3000),
(003, '2016-02-20 00:00:00', 4000),
(001, '2016-02-20 00:00:00', 4500),
(002, '2016-06-11 00:00:00', 3500);

Kết quả:

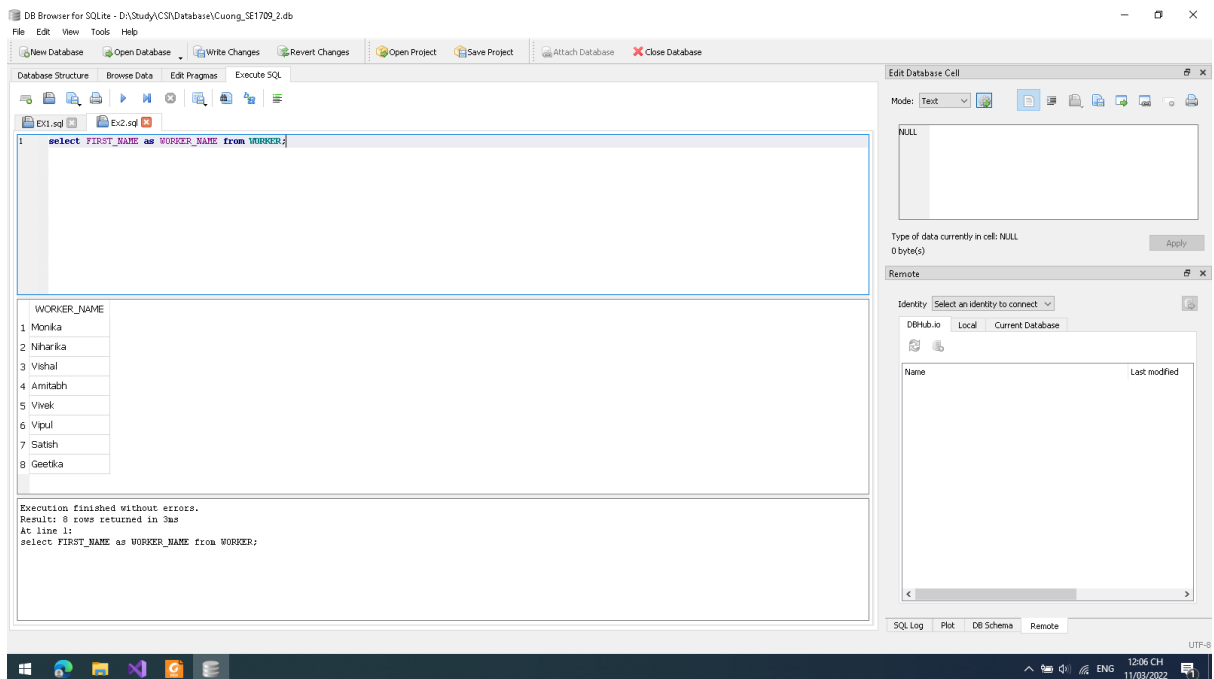


2.

Code:

select FIRST_NAME as WORKER_NAME from WORKER;

Kết quả:



3.

Code:

```
select upper(FIRST_NAME) from WORKER;
```

Kết quả:

The screenshot shows the DB Browser for SQLite interface. The SQL editor contains the query: `select upper(FIRST_NAME) from WORKER;`. The results pane displays a table with one column, `upper(FIRST_NAME)`, and eight rows of data: MONIKA, NHARBA, VISHAL, AMITABH, VIVEK, VIPUL, SATISH, and GEETIKA. The status bar indicates "Execution finished without errors. Result: 8 rows returned in 3ms".

upper(FIRST_NAME)
1 MONIKA
2 NHARBA
3 VISHAL
4 AMITABH
5 VIVEK
6 VIPUL
7 SATISH
8 GEETIKA

4.

Code:

```
select distinct DEPARTMENT from WORKER;
```

Kết quả:

The screenshot shows the DB Browser for SQLite interface. The SQL editor contains the query: `select distinct DEPARTMENT from WORKER;`. The results pane displays a table with one column, `DEPARTMENT`, and three rows of data: HR, Admin, and Account. The status bar indicates "Execution finished without errors. Result: 3 rows returned in 4ms".

DEPARTMENT
1 HR
2 Admin
3 Account

5.

Code:

```
select substr(FIRST_NAME,1,3) from WORKER;
```

Kết quả:

The screenshot shows the DB Browser for SQLite interface. The SQL editor contains the query: `select substr(FIRST_NAME,1,3) from WORKER;`. The results pane displays the following data:

	substr(FIRST_NAME,1,3)
1	Mon
2	Nih
3	Vis
4	Ami
5	Viv
6	Vip
7	Sat
8	Gee

Execution finished without errors.
Result: 8 rows returned in 4ms
At line 1:
select substr(FIRST_NAME,1,3) from WORKER;

6.

Code:

```
select * from WORKER order by FIRST_NAME asc;
```

Kết quả:

The screenshot shows the DB Browser for SQLite interface. The SQL editor contains the query: `select * from WORKER order by FIRST_NAME asc;`. The results pane displays the following data:

	WORKER_ID	FIRST_NAME	LAST_NAME	SALARY	JOINING_DATE	DEPARTMENT
1	4	Amitabh	Singh	500000	2014-02-20 09:00:00	Admin
2	8	Geetika	Chauhan	90000	2014-04-11 09:00:00	Admin
3	1	Monika	Arora	100000	2014-02-20 09:00:00	HR
4	2	Niharika	Verma	80000	2014-06-11 09:00:00	Admin
5	7	Satish	Kumar	75000	2014-01-20 09:00:00	Account
6	6	Vipul	Diwan	200000	2014-06-11 09:00:00	Account
7	3	Vishal	Singhal	300000	2014-02-20 09:00:00	HR
8	5	Vivek	Bhati	500000	2014-06-11 09:00:00	Admin

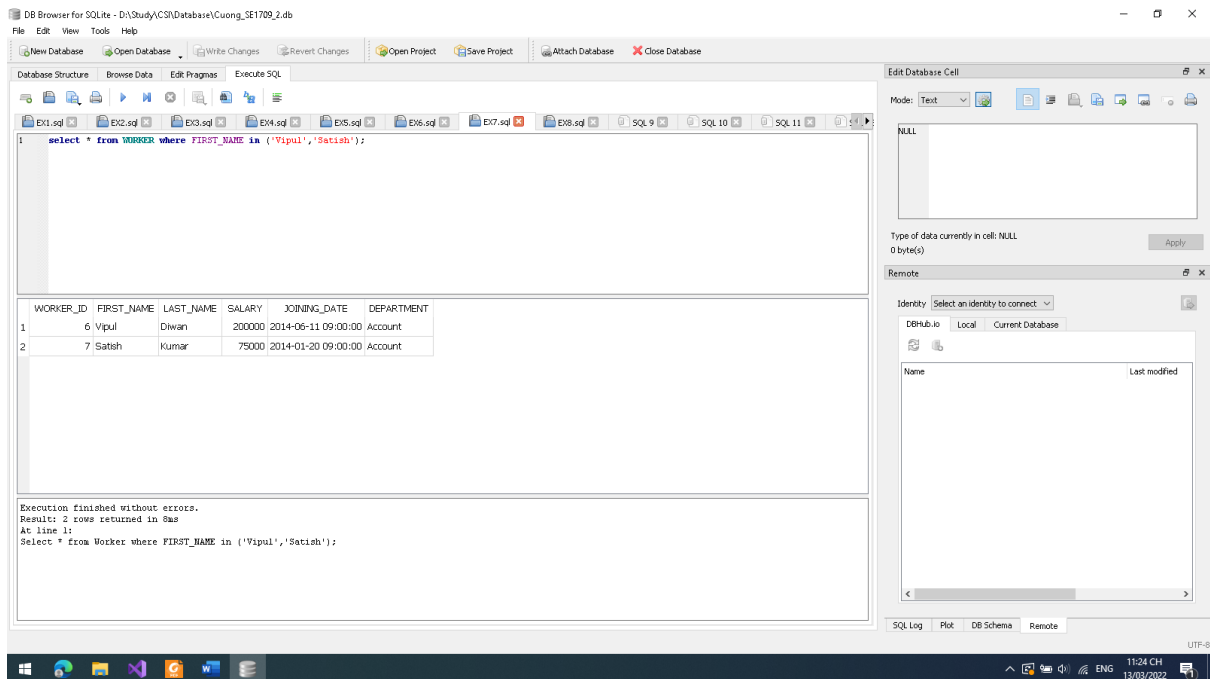
Execution finished without errors.
Result: 8 rows returned in 8ms
At line 1:
select * from WORKER order by FIRST_NAME asc;

7.

Code:

```
select * from WORKER where FIRST_NAME in ('Vipul','Satish');
```

Kết quả:



DB Browser for SQLite - D:\Study\CS\Database\Cuong_SE1709_2.db

File Edit View Tools Help

New Database Open Database Write Changes Revert Changes Open Project Save Project Attach Database Close Database

Database Structure Browse Data Edit Pragma Execute SQL

EX1.sql EX2.sql EX3.sql EX4.sql EX5.sql EX6.sql EX7.sql EX8.sql SQL 9 SQL 10 SQL 11

```
1 select * from WORKER where FIRST_NAME in ('Vipul','Satish');
```

WORKER_ID	FIRST_NAME	LAST_NAME	SALARY	JOINING_DATE	DEPARTMENT
1	6 Vipul	Diwan	20000	2014-06-11 09:00:00	Account
2	7 Satish	Kumar	75000	2014-01-20 09:00:00	Account

Execution finished without errors.
Result: 2 rows returned in 8ms
At line 1:
Select * from Worker where FIRST_NAME in ('Vipul','Satish');

Execution finished without errors.
Result: 2 rows returned in 8ms
At line 1:
Select * from Worker where FIRST_NAME in ('Vipul','Satish');

SQL Log Plot DB Schema Remote

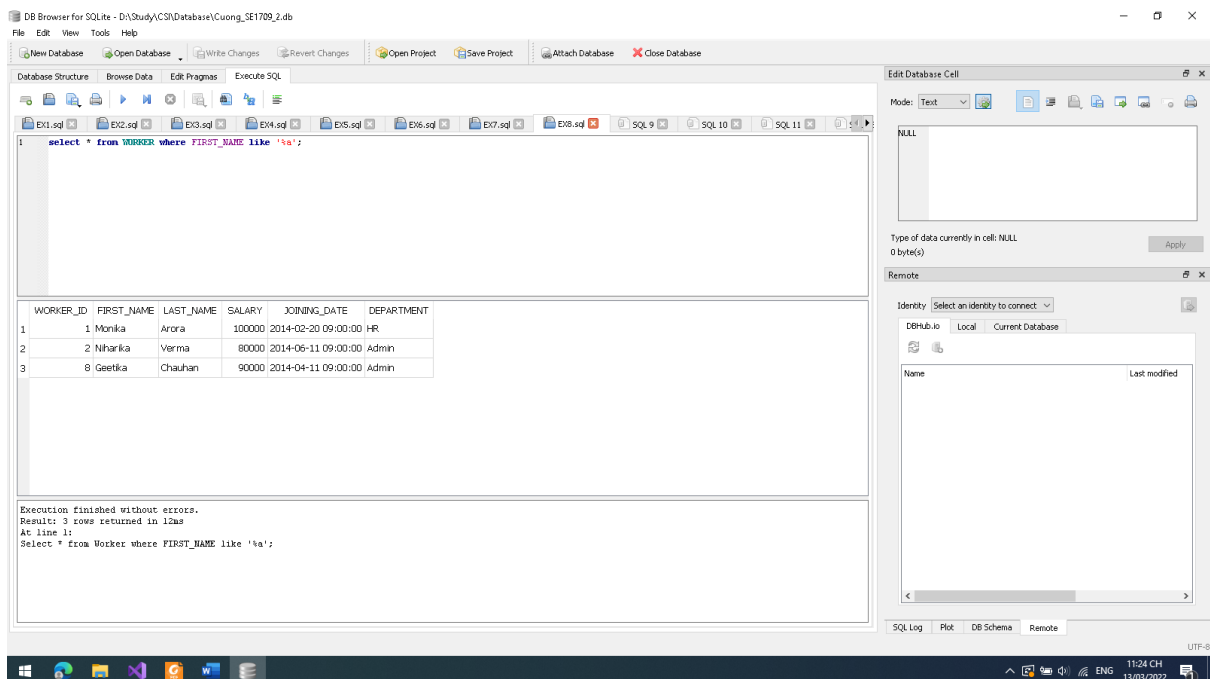
UTF-8

8.

Code:

```
select * from WORKER where FIRST_NAME like '%a';
```

Kết quả:



DB Browser for SQLite - D:\Study\CS\Database\Cuong_SE1709_2.db

File Edit View Tools Help

New Database Open Database Write Changes Revert Changes Open Project Save Project Attach Database Close Database

Database Structure Browse Data Edit Pragma Execute SQL

EX1.sql EX2.sql EX3.sql EX4.sql EX5.sql EX6.sql EX7.sql EX8.sql SQL 9 SQL 10 SQL 11

```
1 select * from WORKER where FIRST_NAME like '%a';
```

WORKER_ID	FIRST_NAME	LAST_NAME	SALARY	JOINING_DATE	DEPARTMENT
1	1 Monika	Arora	100000	2014-02-20 09:00:00	HR
2	2 Niharika	Verma	80000	2014-06-11 09:00:00	Admin
3	8 Geetika	Chauhan	90000	2014-04-11 09:00:00	Admin

Execution finished without errors.
Result: 3 rows returned in 12ms
At line 1:
Select * from Worker where FIRST_NAME like '%a';

Execution finished without errors.
Result: 3 rows returned in 12ms
At line 1:
Select * from Worker where FIRST_NAME like '%a';

SQL Log Plot DB Schema Remote

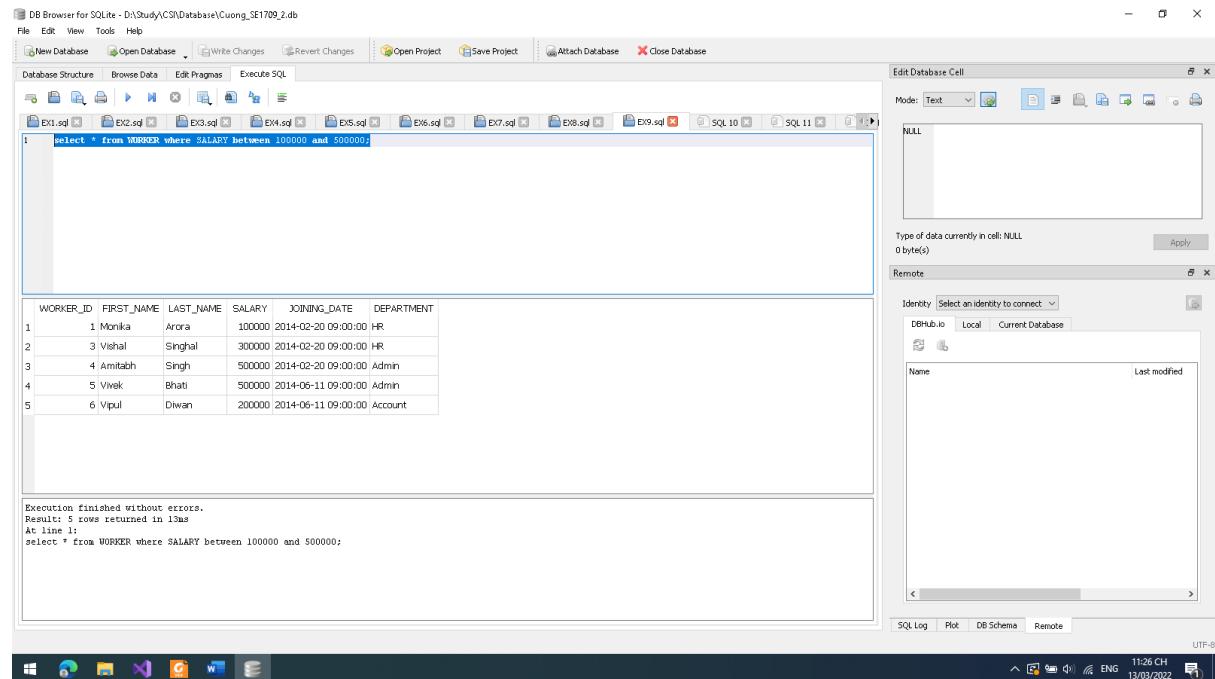
UTF-8

9.

Code:

select * from WORKER where SALARY between 100000 and 500000;

Kết quả:



DB Browser for SQLite - D:\Study\CS\Database\Cuong_SE1709_2.db

File Edit View Tools Help

New Database Open Database Write Changes Revert Changes Open Project Save Project Attach Database Close Database

Database Structure Browse Data Edit Pragma Execute SQL

EX1.sql EX2.sql EX3.sql EX4.sql EX5.sql EX6.sql EX7.sql EX8.sql EX9.sql SQL 10 SQL 11

```
select * from WORKER where SALARY between 100000 and 500000;
```

WORKER_ID	FIRST_NAME	LAST_NAME	SALARY	JOINING_DATE	DEPARTMENT
1	Monika	Arora	100000	2014-02-20 09:00:00	HR
2	Vishal	Singhal	300000	2014-02-20 09:00:00	HR
3	Amitabh	Singh	500000	2014-02-20 09:00:00	Admin
4	Vivek	Bhati	500000	2014-06-11 09:00:00	Admin
5	Vipul	Diwan	200000	2014-06-11 09:00:00	Account

Execution finished without errors.
Result: 5 rows returned in 13ms
At line 1:
select * from WORKER where SALARY between 100000 and 500000;

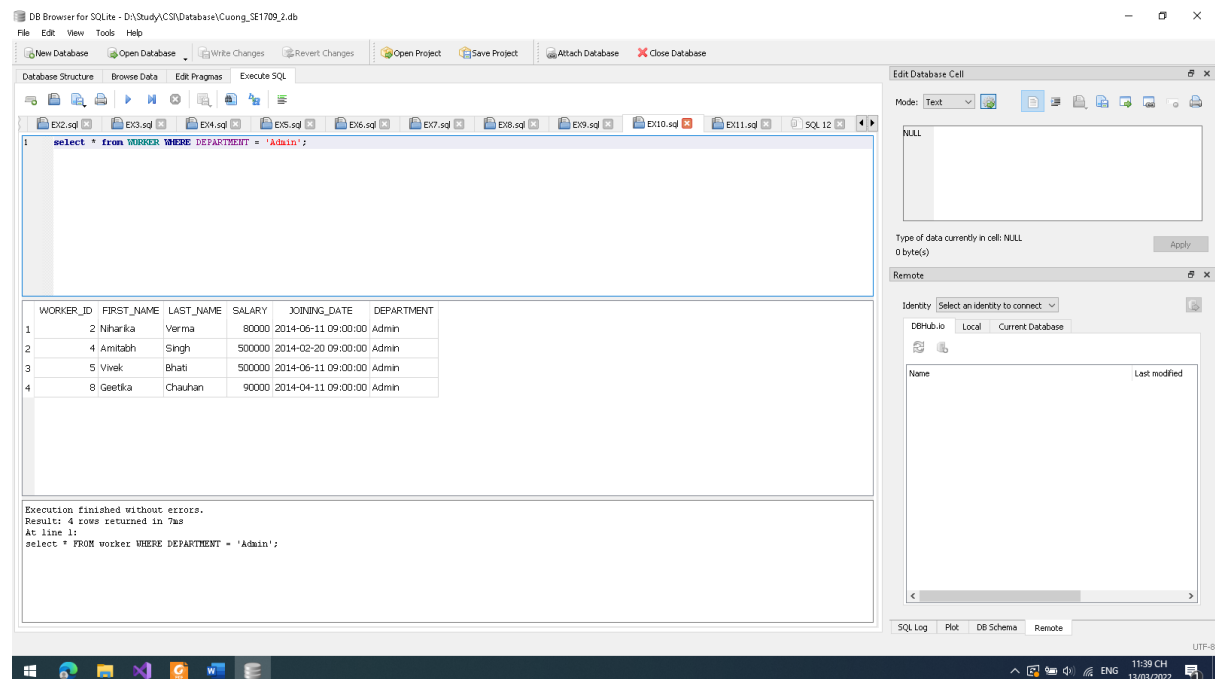
SQL Log Plot DB Schema Remote

10.

Code:

select * from WORKER WHERE DEPARTMENT = 'Admin';

Kết quả:



DB Browser for SQLite - D:\Study\CS\Database\Cuong_SE1709_2.db

File Edit View Tools Help

New Database Open Database Write Changes Revert Changes Open Project Save Project Attach Database Close Database

Database Structure Browse Data Edit Pragma Execute SQL

EX2.sql EX3.sql EX4.sql EX5.sql EX6.sql EX7.sql EX8.sql EX9.sql EX10.sql EX11.sql SQL 12

```
select * from WORKER WHERE DEPARTMENT = 'Admin';
```

WORKER_ID	FIRST_NAME	LAST_NAME	SALARY	JOINING_DATE	DEPARTMENT
1	Niharika	Verma	80000	2014-06-11 09:00:00	Admin
2	Amitabh	Singh	500000	2014-02-20 09:00:00	Admin
3	Vivek	Bhati	500000	2014-06-11 09:00:00	Admin
4	Geetika	Chauhan	90000	2014-04-11 09:00:00	Admin

Execution finished without errors.
Result: 4 rows returned in 7ms
At line 1:
select * FROM worker WHERE DEPARTMENT = 'Admin';

SQL Log Plot DB Schema Remote

11.

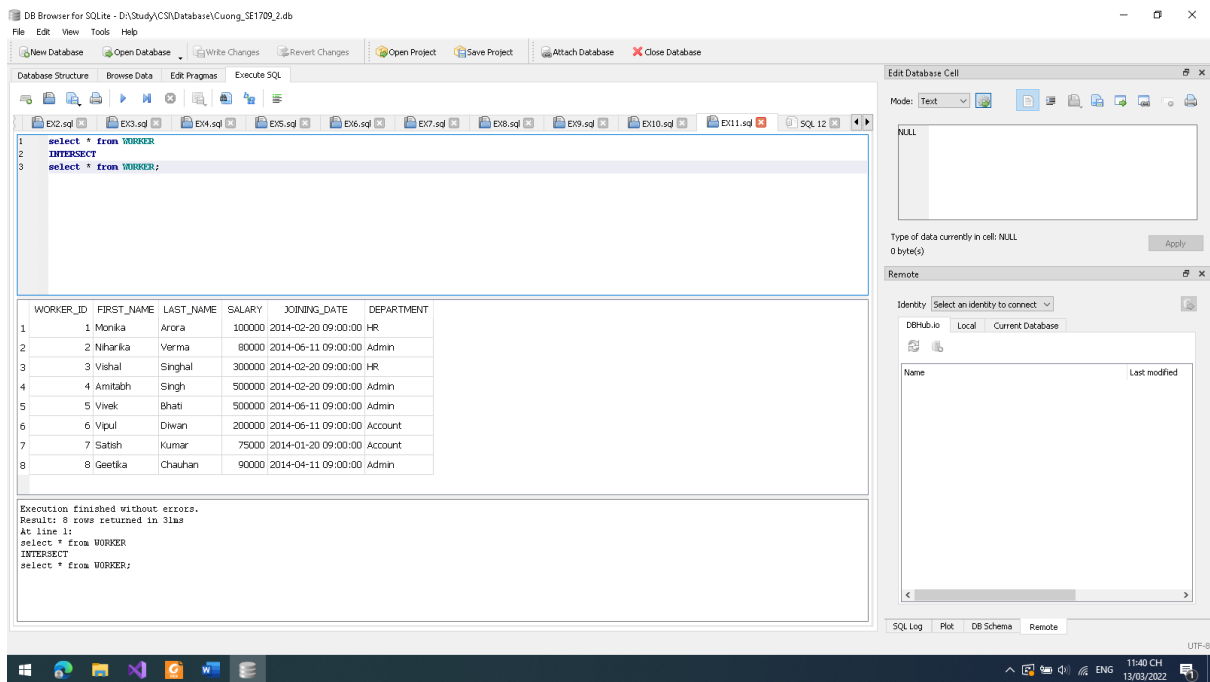
Code:

```
select * from WORKER
```

INTERSECT

```
select * from WORKER;
```

Kết quả:



DB Browser for SQLite - D:\Study\CSRDDatabase\Cuong_SE1709_2.db

File Edit View Tools Help

New Database Open Database Write Changes Revert Changes Open Project Save Project Attach Database Close Database

Database Structure Browse Data Edit Pragma Execute SQL

EX2.sql EX3.sql EX4.sql EX5.sql EX6.sql EX7.sql EX8.sql EX9.sql EX10.sql EX11.sql SQL-12

```
1 select * from WORKER
2 INTERSECT
3 select * from WORKER;
```

WORKER_ID	FIRST_NAME	LAST_NAME	SALARY	JOINING_DATE	DEPARTMENT
1	Monika	Arora	100000	2014-02-20 09:00:00	HR
2	Niharika	Verma	80000	2014-06-11 09:00:00	Admin
3	Vishal	Singhal	300000	2014-02-20 09:00:00	HR
4	Amitabh	Singh	500000	2014-02-20 09:00:00	Admin
5	Vivek	Bhati	500000	2014-06-11 09:00:00	Admin
6	Vipul	Diwan	200000	2014-06-11 09:00:00	Account
7	Satish	Kumar	75000	2014-01-20 09:00:00	Account
8	Geetika	Chauhan	90000	2014-04-11 09:00:00	Admin

Execution finished without errors.
Result: 8 rows returned in 31ms
At line 1:
select * from WORKER
INTERSECT
select * from WORKER;

Edit Database Cell

Mode: Text

NULL

Type of data currently in cell: NULL
0 byte(s) Apply

Remote

Identity Select an identity to connect

DBHub.io Local Current Database

Name Last modified

SQL Log Plot DB Schema Remote

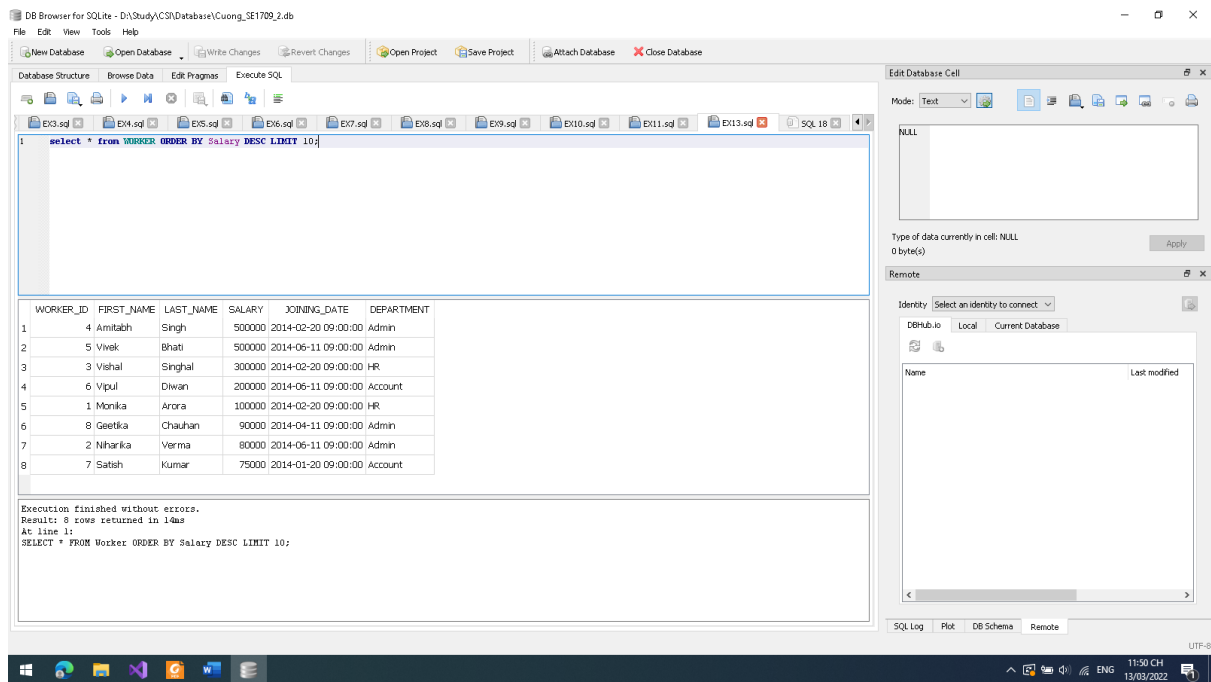
UTF-8

13.

Code:

```
select * from Worker ORDER BY Salary DESC LIMIT 10;
```

Kết quả:



15.

Code:

```
select WORKER_ID, FIRST_NAME, LAST_NAME, SALARY from Worker WHERE
SALARY=(select max(SALARY) from Worker);
```

Kết quả:

DB Browser for SQLite - D:\Study\CS\Database\Cuong_SE1709_2.db

File Edit View Tools Help

New Database Open Database Write Changes Revert Changes Open Project Save Project Attach Database Close Database

Database Structure Browse Data Edit Pragma Execute SQL

EX3.sql EX4.sql EX5.sql EX6.sql EX7.sql EX8.sql EX9.sql EX10.sql EX11.sql EX13.sql EX15.sql

```
1 select WORKER_ID, FIRST_NAME, LAST_NAME, SALARY from Worker WHERE SALARY=(select max(SALARY) from Worker);
```

WORKER_ID	FIRST_NAME	LAST_NAME	SALARY		
1	4	Amitabh	Singh	500000	
2		5	Vivek	Bhati	500000

Execution finished without errors.
Result: 2 rows returned in 7ms
At line 1:
select WORKER_ID, FIRST_NAME, LAST_NAME, SALARY from Worker WHERE SALARY=(select max(SALARY) from Worker);

Edit Database Cell

Mode: Text

1 4

Type of data currently in cell: Text / Numeric
1 character(s)

Remote

Identity: Select an identity to connect

DB4u.io Local Current Database

Name Last modified

SQL Log Plot DB Schema Remote

UTF-8

DB Browser for SQLite - D:\Study\CS\Database\Cuong_SE1709_2.db

File Edit View Tools Help

New Database Open Database Write Changes Revert Changes Open Project Save Project Attach Database Close Database

Database Structure Browse Data Edit Pragma Execute SQL

EX3.sql EX4.sql EX5.sql EX6.sql EX7.sql EX8.sql EX9.sql EX10.sql EX11.sql EX13.sql SQL 18

```
1 select WORKER_ID, FIRST_NAME, LAST_NAME, SALARY from Worker WHERE SALARY=(select max(SALARY) from Worker);
```

WORKER_ID	FIRST_NAME	LAST_NAME	SALARY		
1	4	Amitabh	Singh	500000	
2		5	Vivek	Bhati	500000

Execution finished without errors.
Result: 2 rows returned in 7ms
At line 1:
select WORKER_ID, FIRST_NAME, LAST_NAME, SALARY from Worker WHERE SALARY=(select max(SALARY) from Worker);

Edit Database Cell

Mode: Text

NULL

Type of data currently in cell: NULL
0 byte(s)

Remote

Identity: Select an identity to connect

DB4u.io Local Current Database

Name Last modified

SQL Log Plot DB Schema Remote

UTF-8