



Faculty of Technology and Engineering

Chandubhai S. Patel Institute of Technology (CSPIT)

Department of Computer Science & Engineering

Date: / /

Laboratory Manual

Academic Year	:	2024-25	Semester	:	4
Course code	:	CSE206	Course name	:	DATABASE MANAGEMENT SYSTEM

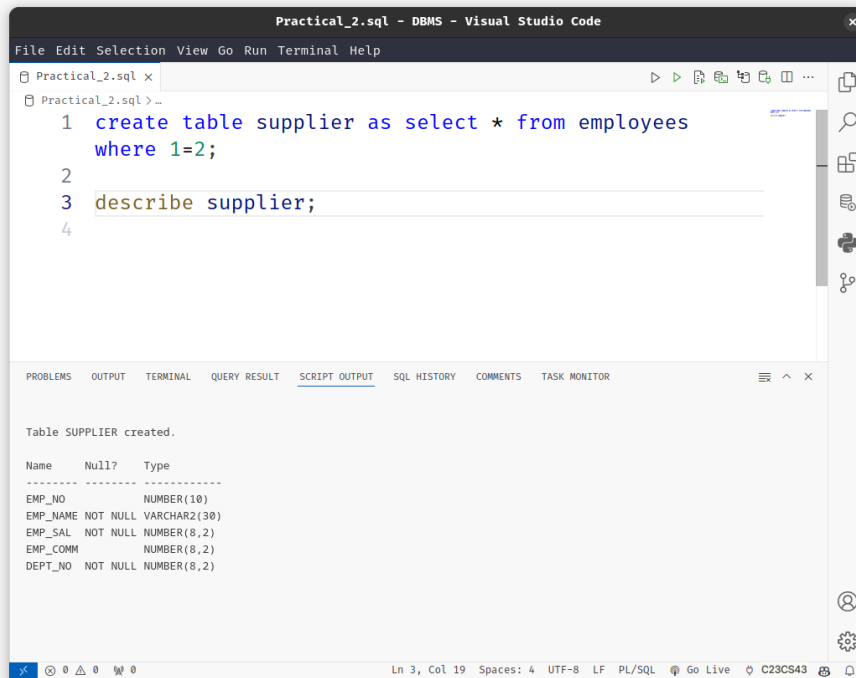
Practical - 2

Aim: Global Trust Bank is expanding its operations and requires a robust database management system to efficiently manage its employees, job profiles, customers' accounts, and loan information. The bank has laid out specific requirements and constraints to ensure data integrity, uniqueness, and completeness. Perform Data Definition Language (DDL) commands and change the existing schema as per the given information.

Constraints –

- Not Null Constraints: Ensure critical fields are not null.
- Unique Constraints: Ensure data integrity by limiting column values.
- Check Constraints: Ensure columns like Account Number have unique values.

1. Create Table Supplier (emp_no, emp_name, emp_sal, emp_comm, dept_no).



The screenshot shows the Visual Studio Code editor with a file named 'Practical_2.sql'. The code in the editor is:

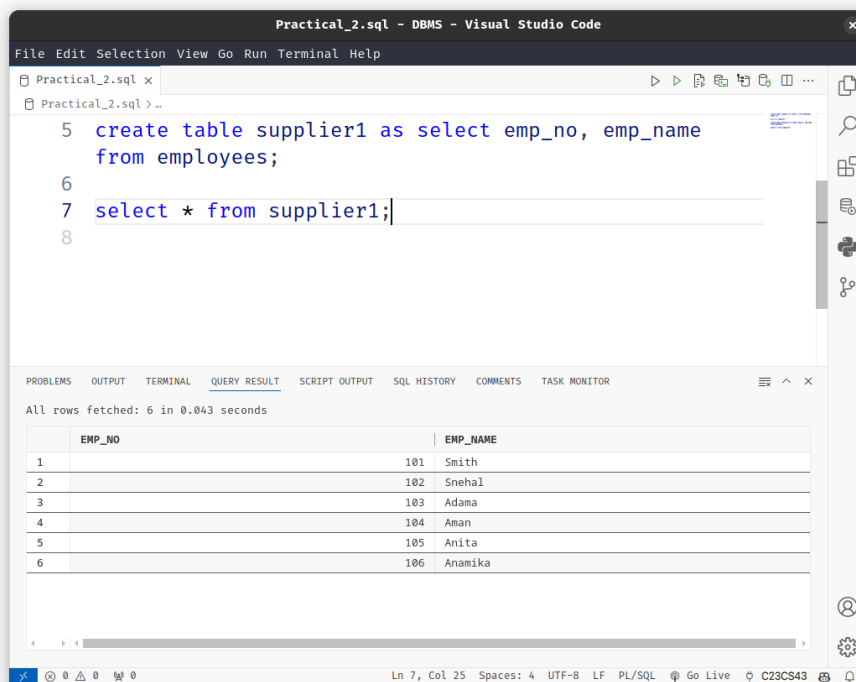
```
1 create table supplier as select * from employees
  where 1=2;
2
3 describe supplier;
4
```

The output pane at the bottom shows the result of the 'describe' query:

```
Table SUPPLIER created.

Name      Null?   Type
-----
EMP_NO     NUMBER(10)
EMP_NAME   NOT NULL VARCHAR2(30)
EMP_SAL    NOT NULL NUMBER(8,2)
EMP_COMM   NUMBER(8,2)
DEPT_NO    NOT NULL NUMBER(8,2)
```

2. Create Table Sup1 (emp_no, emp_name).



The screenshot shows the Visual Studio Code editor with a file named 'Practical_2.sql'. The code in the editor is:

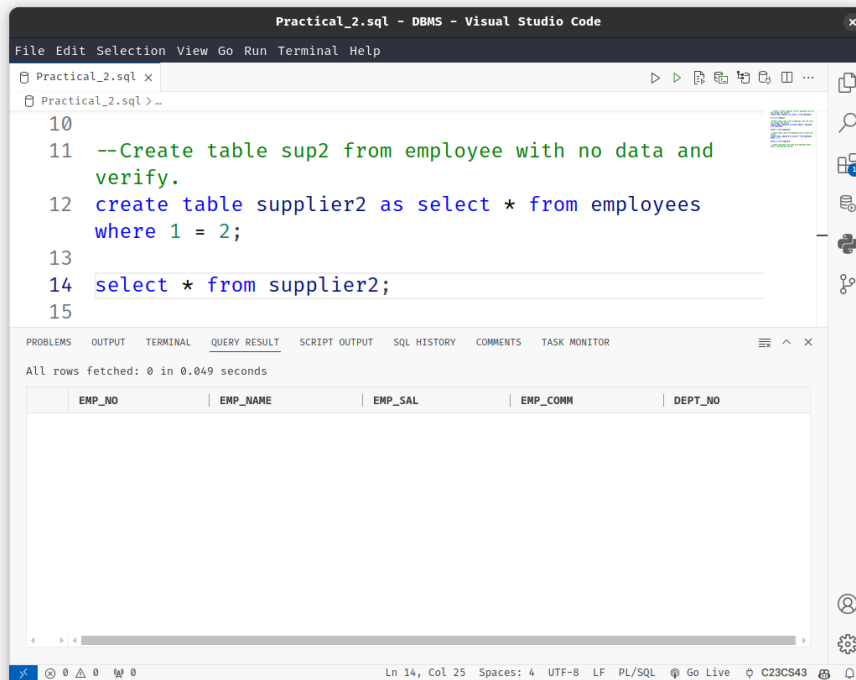
```
5 create table supplier1 as select emp_no, emp_name
  from employees;
6
7 select * from supplier1;
8
```

The output pane at the bottom shows the result of the 'select' query:

```
All rows fetched: 6 in 0.043 seconds
```

	EMP_NO	EMP_NAME
1	101	Smith
2	102	Snehal
3	103	Adama
4	104	Aman
5	105	Anita
6	106	Anamika

3. Create Table Sup2 (emp_no, emp_name, emp_sal, emp_comm, dept_no).

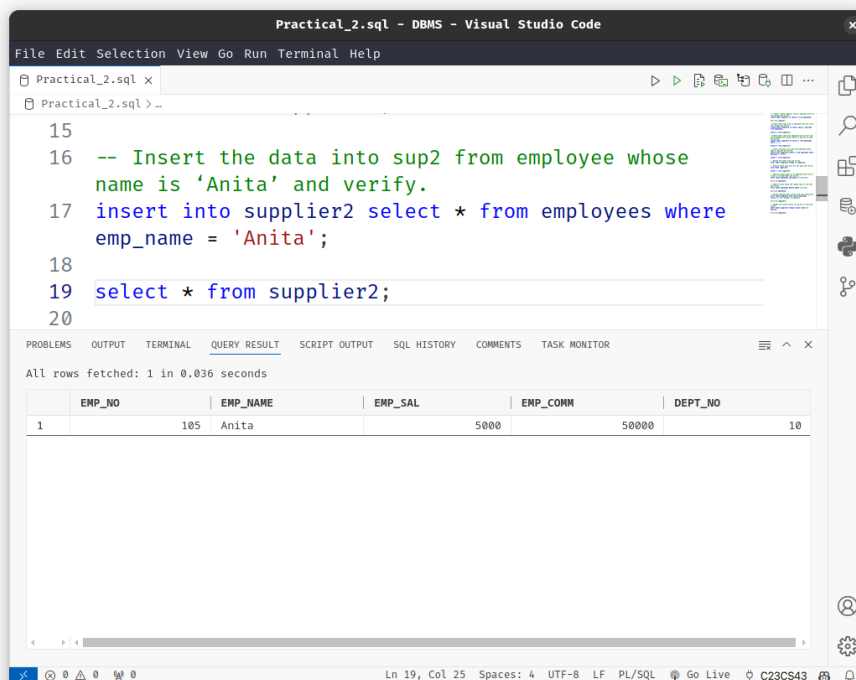


The screenshot shows the Visual Studio Code editor with a file named 'Practical_2.sql'. The code contains the following SQL statements:

```
10
11 --Create table sup2 from employee with no data and
    verify.
12 create table supplier2 as select * from employees
    where 1 = 2;
13
14 select * from supplier2;
15
```

The 'QUERY RESULT' panel at the bottom shows 'All rows fetched: 0 in 0.049 seconds'. Below this, a table structure is visible with columns: EMP_NO, EMP_NAME, EMP_SAL, EMP_COMM, and DEPT_NO.

4. Insert the data into sup2 from an employee whose name is 'Anita' and verify.



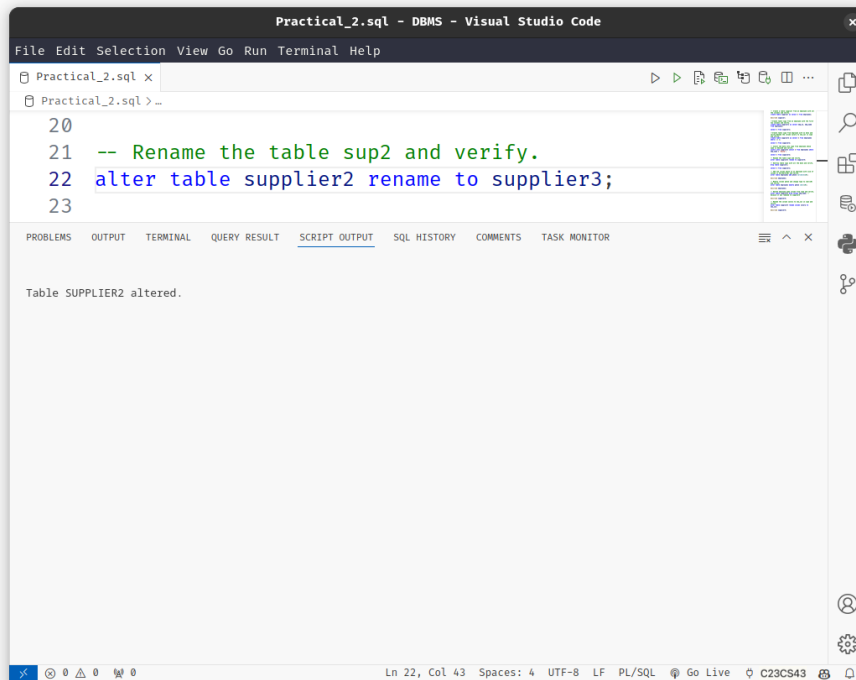
The screenshot shows the Visual Studio Code editor with the same file 'Practical_2.sql'. The code now includes an insert statement:

```
15
16 -- Insert the data into sup2 from employee whose
    name is 'Anita' and verify.
17 insert into supplier2 select * from employees where
    emp_name = 'Anita';
18
19 select * from supplier2;
20
```

The 'QUERY RESULT' panel shows 'All rows fetched: 1 in 0.036 seconds'. Below this, a table displays the inserted data:

EMP_NO	EMP_NAME	EMP_SAL	EMP_COMM	DEPT_NO
1	105 Anita	5000	50000	10

5. Rename the table sup2 and verify.

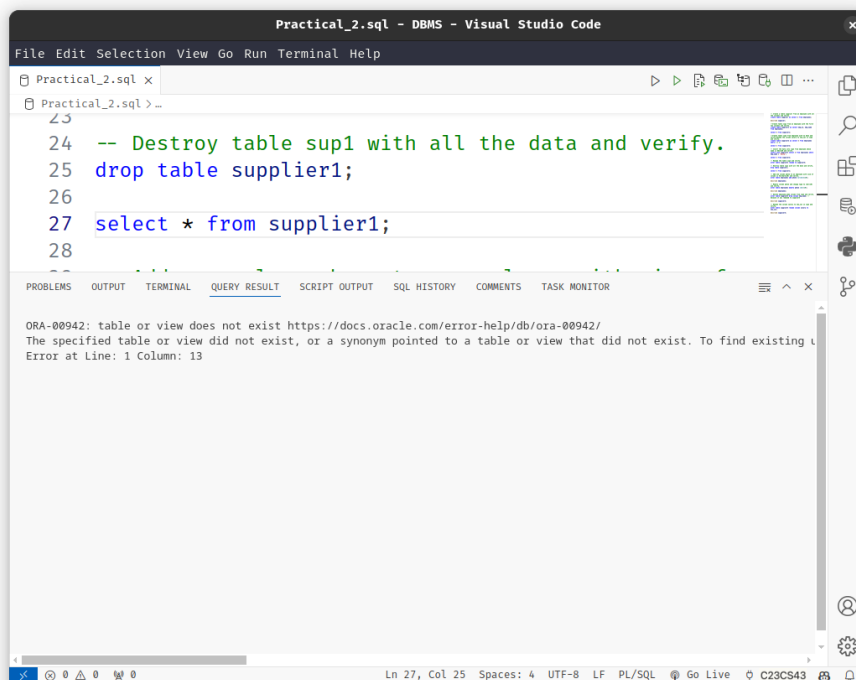


The screenshot shows the Visual Studio Code editor with a file named 'Practical_2.sql'. The code contains a comment and an SQL statement to rename a table. The 'SCRIPT OUTPUT' panel at the bottom shows the result of the execution.

```
20
21 -- Rename the table sup2 and verify.
22 alter table supplier2 rename to supplier3;
23
```

Table SUPPLIER2 altered.

6. Destroy table sup1 with all the data and verify.

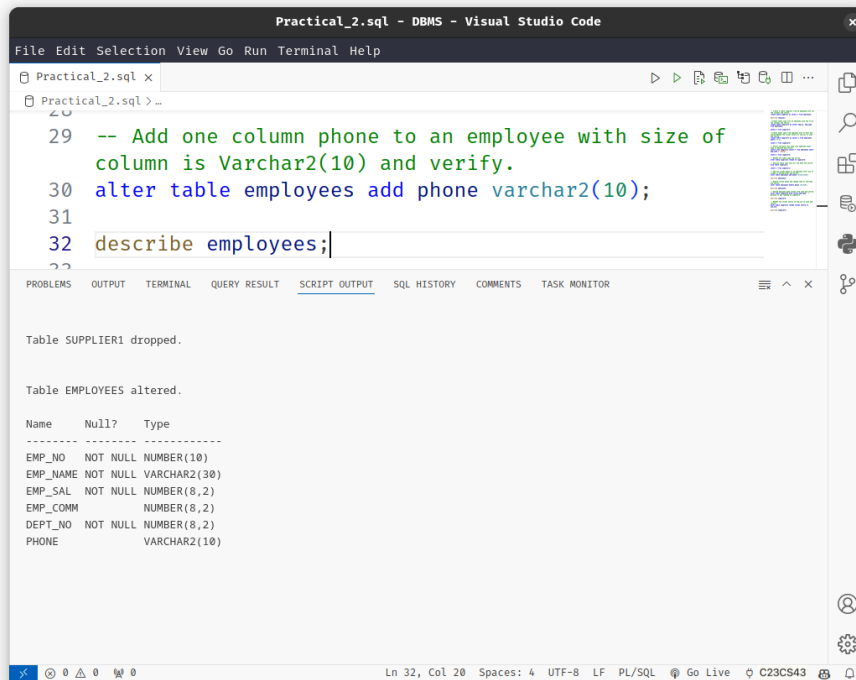


The screenshot shows the Visual Studio Code editor with a file named 'Practical_2.sql'. The code contains a comment, an SQL statement to drop a table, and a query to verify the result. The 'QUERY RESULT' panel at the bottom shows an error message.

```
24 -- Destroy table sup1 with all the data and verify.
25 drop table supplier1;
26
27 select * from supplier1;
28
```

ORA-00942: table or view does not exist <https://docs.oracle.com/error-help/db/ora-00942/>
The specified table or view did not exist, or a synonym pointed to a table or view that did not exist. To find existing
Error at Line: 1 Column: 13

7. Add one column phone to an employee whose size of column is Varchar2(10) and verify.



The screenshot shows the Visual Studio Code editor with a file named 'Practical_2.sql'. The code in the editor is as follows:

```
29 -- Add one column phone to an employee with size of
30 column is Varchar2(10) and verify.
31 alter table employees add phone varchar2(10);
32 describe employees;
```

The 'SCRIPT OUTPUT' tab is active, displaying the following output:

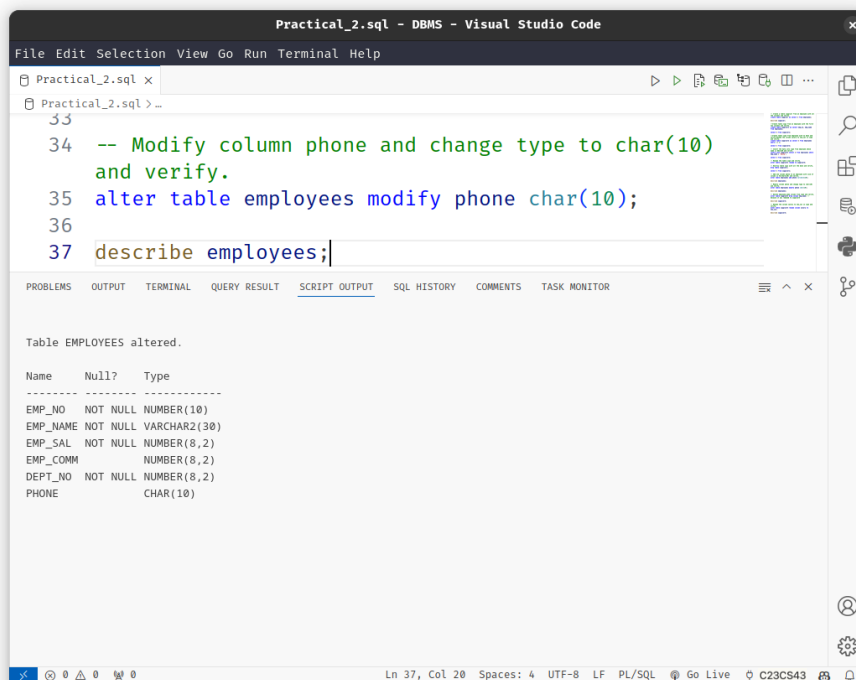
```
Table SUPPLIER1 dropped.

Table EMPLOYEES altered.

Name      Null?     Type
-----
EMP_NO    NOT NULL NUMBER(10)
EMP_NAME  NOT NULL VARCHAR2(30)
EMP_SAL   NOT NULL NUMBER(8,2)
EMP_COMM             NUMBER(8,2)
DEPT_NO   NOT NULL NUMBER(8,2)
PHONE                        VARCHAR2(10)
```

The status bar at the bottom indicates 'Ln 32, Col 20'.

8. Modify column phone and change type to char(10) and verify.



The screenshot shows the Visual Studio Code editor with the same file 'Practical_2.sql'. The code in the editor is as follows:

```
34 -- Modify column phone and change type to char(10)
35 and verify.
36 alter table employees modify phone char(10);
37 describe employees;
```

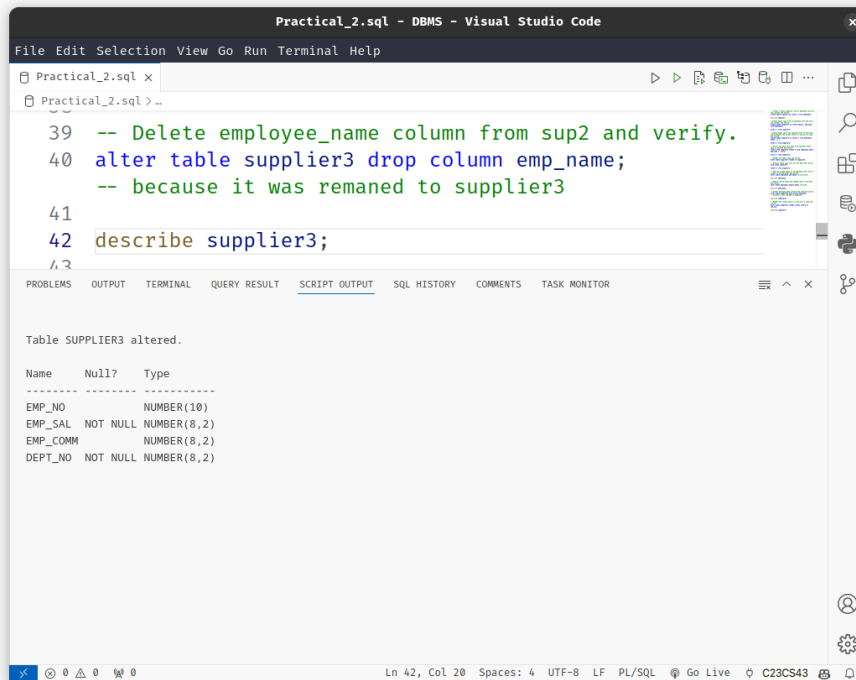
The 'SCRIPT OUTPUT' tab is active, displaying the following output:

```
Table EMPLOYEES altered.

Name      Null?     Type
-----
EMP_NO    NOT NULL NUMBER(10)
EMP_NAME  NOT NULL VARCHAR2(30)
EMP_SAL   NOT NULL NUMBER(8,2)
EMP_COMM             NUMBER(8,2)
DEPT_NO   NOT NULL NUMBER(8,2)
PHONE                        CHAR(10)
```

The status bar at the bottom indicates 'Ln 37, Col 20'.

9. Delete employee_name column from sup2 and verify.



The screenshot shows the Visual Studio Code interface with a file named 'Practical_2.sql'. The code in the editor is as follows:

```
39 -- Delete employee_name column from sup2 and verify.
40 alter table supplier3 drop column emp_name;
41 -- because it was remaned to supplier3
42 describe supplier3;
```

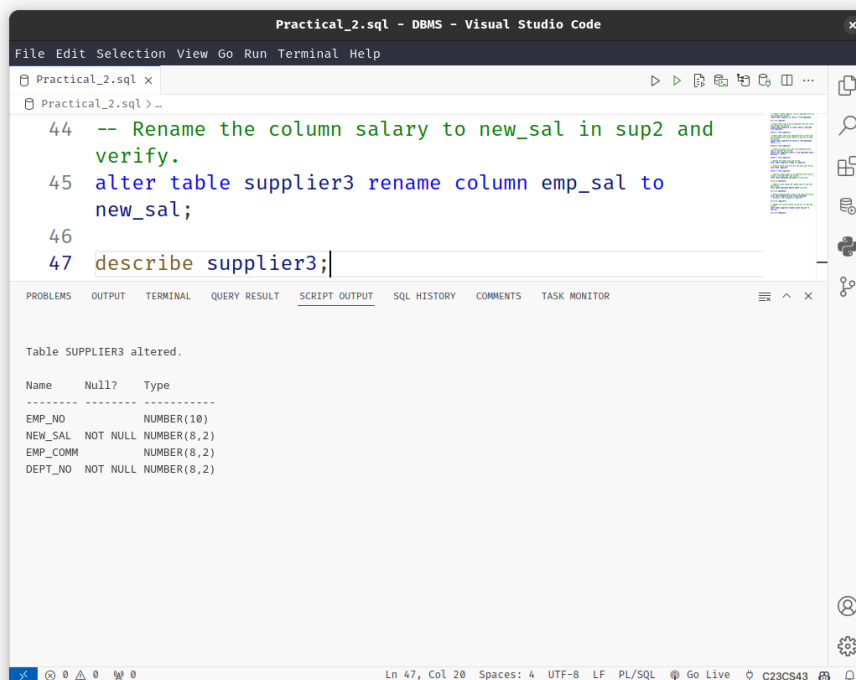
The 'SCRIPT OUTPUT' tab is active, displaying the following output:

Table SUPPLIER3 altered.

Name	Null?	Type
EMP_NO		NUMBER(10)
EMP_SAL	NOT NULL	NUMBER(8,2)
EMP_COMM		NUMBER(8,2)
DEPT_NO	NOT NULL	NUMBER(8,2)

The status bar at the bottom indicates 'Ln 42, Col 20'.

10. Rename the column salary to new_sal in sup2 and verify.



The screenshot shows the Visual Studio Code interface with a file named 'Practical_2.sql'. The code in the editor is as follows:

```
44 -- Rename the column salary to new_sal in sup2 and
45 -- verify.
46 alter table supplier3 rename column emp_sal to
47 new_sal;
48 describe supplier3;
```

The 'SCRIPT OUTPUT' tab is active, displaying the following output:

Table SUPPLIER3 altered.

Name	Null?	Type
EMP_NO		NUMBER(10)
NEW_SAL	NOT NULL	NUMBER(8,2)
EMP_COMM		NUMBER(8,2)
DEPT_NO	NOT NULL	NUMBER(8,2)

The status bar at the bottom indicates 'Ln 47, Col 20'.