

1-

The screenshot shows the Oracle Live SQL interface. The left sidebar contains navigation links: Home, SQL Worksheet, My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main area is titled "SQL Worksheet" and contains the following SQL code:

```
32 alter table ENROLMENT
33 add foreign key (COURSENO) REFERENCES COURSE (COURSENO);
34 alter table ENROLMENT
35 add foreign key (STUDENTNO) REFERENCES STUDENT (STUDENTNO);
36
37 INSERT INTO DEP (
38   DEPTNO,
39   DNAME
40 )
41 VALUES ('CH', 'Chemistry');
42
43 INSERT INTO COURSE (
44   COURSENO,
45   CNAME,
46   DEPTNO,
47   CMAX
48 )
49 VALUES ('301', 'Chemistry 1', 'CH', 40);
50
51 INSERT INTO DEP (
52   DEPTNO,
53   DNAME
```

Below the code, the execution results are displayed:

```
Table altered.
1 row(s) inserted.
```

The status bar at the bottom indicates: "2023 Oracle - Live SQL 22.4.1, running Oracle Database 19c EE Extreme Perf - 19.17.0.0.0 - Database Documentation - Ask Tom - Dev Gym". The Windows taskbar at the bottom shows the date and time as 3:34 PM on 1/11/2023.

2-

The screenshot shows the Oracle Live SQL interface after the second execution of the SQL commands. The SQL code in the worksheet is the same as in the first screenshot. The execution results now show two rows inserted:

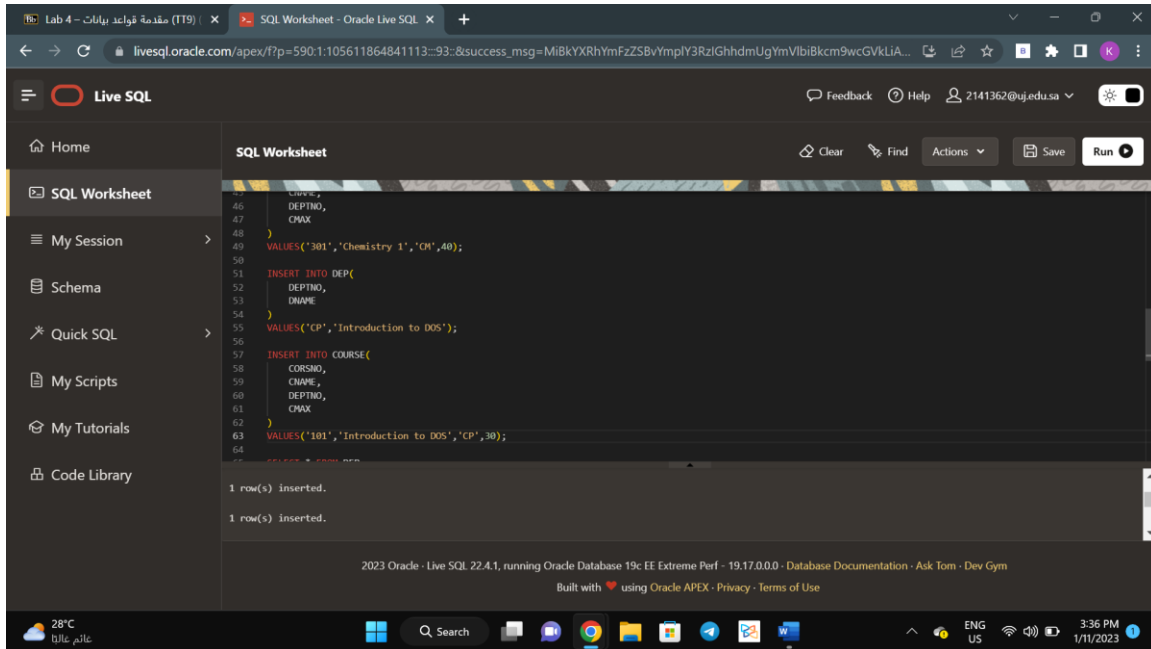
```
1 row(s) inserted.
1 row(s) inserted.
```

The status bar at the bottom remains the same, indicating the version and configuration of the Oracle Live SQL environment. The Windows taskbar at the bottom shows the date and time as 3:35 PM on 1/11/2023.

3-

There is an error because we didn't add the department number 'CP' in DEP table

We can solve that like this:



The screenshot shows the Oracle Live SQL interface. The left sidebar contains navigation links: Home, SQL Worksheet (selected), My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main area is titled 'SQL Worksheet' and contains the following SQL code:

```
46  CURSOR  
47  DEPTNO,  
48  CMAX  
49  )  
50  VALUES('301','Chemistry 1','CH',40);  
51  INSERT INTO DEP(  
52  DEPTNO,  
53  DNAME  
54  )  
55  VALUES('CP','Introduction to DOS');  
56  
57  INSERT INTO COURSE(  
58  CURSNO,  
59  CNAME,  
60  DEPTNO,  
61  CMAX  
62  )  
63  VALUES('101','Introduction to DOS','CP',30);  
64
```

Below the code, the execution results are shown:

```
1 row(s) inserted.  
1 row(s) inserted.
```

The footer of the interface indicates: 2023 Oracle - Live SQL 22.4.1, running Oracle Database 19c EE Extreme Perf - 19.17.0.0.0 - Database Documentation - Ask Tom - Dev Gym. It also mentions 'Built with using Oracle APEX - Privacy - Terms of Use'.

4-

Error because department number 'CP' in DEP table already used

5-

Four rows

6 and 7-

The screenshot shows the Oracle Live SQL interface. The left sidebar contains navigation links: Home, SQL Worksheet, My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main area is titled "SQL Worksheet" and contains two SQL queries:

```
65 SELECT * FROM DEP;  
66 SELECT * FROM COURSE;  
67
```

Below the queries, there are two result tables. The first table, labeled "DEPTNO DNAME", shows two rows:

DEPTNO	DNAME
CM	Chemistry
CP	Introduction to DOS

Below this table is a "Download CSV" button and the text "2 rows selected." The second table, labeled "COURSEID CNAME DEPTNO CMAX", shows two rows:

COURSEID	CNAME	DEPTNO	CMAX
301	Chemistry 1	CM	40
101	Introduction to DOS	CP	30

At the bottom of the interface, there is a status bar indicating "2023 Oracle - Live SQL 22.4.1, running Oracle Database 19c EE Extreme Perf - 19.17.0.0.0 - Database Documentation - Ask Tom - Dev Gym" and "Built with using Oracle APEX - Privacy - Terms of Use". The Windows taskbar at the bottom shows the date and time as 3:53 PM on 1/11/2023.

8-

No, because we didn't use the command "commit"

9-

Rows that haven't been saved is removed.

10-

insert into dep values ('CM', 'Chemistry'); insert into course values (301, 'Chemistry I', 'CM', 40);
commit;

11-

I can't delete the DEP table first because it has a foreign key and unique values

We can solve that like this:

The screenshot shows the Oracle Live SQL interface. The SQL Worksheet contains the following SQL commands:

```
67  
68  
69 Delete from COURSE;  
70 COMMIT;  
71 Delete from DEP;  
72 COMMIT;  
73
```

Below the code, a table view is displayed:

COURSEID	CNAME	DEPTNO	CMAX
301	Chemistry 1	CH	40
101	Introduction to DOS	CP	30

Below the table, it says "2 rows selected." and "2 row(s) deleted." followed by "Statement processed."

12-

The screenshot shows the Oracle Live SQL interface. The SQL Worksheet contains the following SQL commands:

```
73  
74 SELECT * FROM DEP;  
75 SELECT * FROM COURSE;  
76  
77  
78 ALTER TABLE DEP
```

Below the code, a table view is displayed:

COURSEID	CNAME	DEPTNO	CMAX
101	Introduction to DOS	CP	30

Below the table, it says "2 rows selected." and "2 row(s) deleted." followed by "Statement processed." and "2 row(s) deleted." followed by "Statement processed." and "no data found".

13-

The screenshot shows the Oracle Live SQL interface. The left sidebar contains a navigation menu with options: Home, SQL Worksheet (selected), My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main area is titled "SQL Worksheet" and contains a code editor with the following SQL statements:

```
75 SELECT * FROM COURSE;  
76  
77  
78 ALTER TABLE DEP  
79 ADD NDEP NUMBER(2);  
80  
81
```

Below the code editor, the execution results are displayed:

```
2 rows selected.  
2 row(s) deleted.  
Statement processed.  
2 row(s) deleted.  
Statement processed.  
no data found  
no data found  
Table altered.  
Table dropped.
```

At the bottom of the interface, a status bar indicates: "2023 Oracle - Live SQL 22.4.1, running Oracle Database 19c EE Extreme Perf - 19.17.0.0.0 - Database Documentation - Ask Tom - Dev Gym". The bottom of the browser window shows a Windows taskbar with a search bar and various application icons.

14-

The screenshot shows the Oracle Live SQL interface. The left sidebar contains a navigation menu with options: Home, SQL Worksheet (selected), My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main area is titled "SQL Worksheet" and contains a code editor with the following SQL statements:

```
79 ADD NDEP NUMBER(2);  
80  
81  
82 DROP table DEP cascade constraints;  
83 DROP table COURSE cascade constraints;
```

Below the code editor, the execution results are displayed:

```
Statement processed.  
2 row(s) deleted.  
Statement processed.  
no data found  
no data found  
Table altered.  
Table dropped.  
Table dropped.
```

At the bottom of the interface, a status bar indicates: "2023 Oracle - Live SQL 22.4.1, running Oracle Database 19c EE Extreme Perf - 19.17.0.0.0 - Database Documentation - Ask Tom - Dev Gym". The bottom of the browser window shows a Windows taskbar with a search bar and various application icons.

```

create table DEP (
    DEPTNO varchar2(30) primary key,
    DNAME varchar2(20)

);

create table STUDENT (
    STDNO number(8) primary key,
    SNAME varchar2(30) not null,
    DEPTNO varchar2(30)

);

create table COURSE (
    CORSNO Number(9) primary key,
    CNAME varchar2(30),
    DEPTNO varchar2(20),
    CMAX Number(10)

);

create table ENROLMENT (
    STDNO number(8),
    CORSNO Number(9),
    GRADE Number(7),

    EDATE date,
    primary key (STDNO,CORSNO )

);

alter table STUDENT
add Foreign key(DEPTNO) REFERENCES DEP(DEPTNO);

alter table COURSE
add Foreign key(DEPTNO) REFERENCES DEP(DEPTNO);

alter table ENROLMENT
add Foreign key(CORSNO) REFERENCES COURSE(CORSNO);

alter table ENROLMENT
add Foreign key(STDNO) REFERENCES STUDENT(STDNO);

```

```
INSERT INTO DEP(  
    DEPTNO,  
    DNAME  
)  
VALUES('CM','Chemistry');
```

```
INSERT INTO COURSE(  
    CORSNO,  
    CNAME,  
    DEPTNO,  
    CMAX  
)  
VALUES('301','Chemistry 1','CM',40);
```

```
INSERT INTO DEP(  
    DEPTNO,  
    DNAME  
)  
VALUES('CP','Introduction to DOS');
```

```
INSERT INTO COURSE(  
    CORSNO,  
    CNAME,  
    DEPTNO,  
    CMAX  
)  
VALUES('101','Introduction to DOS','CP',30);
```

```
SELECT * FROM DEP;  
SELECT * FROM COURSE;
```

```
Delete from COURSE;  
COMMIT;
```

Delete from DEP;

COMMIT;

SELECT * FROM DEP;

SELECT * FROM COURSE;

ALTER TABLE DEP

ADD NBEMP NUMBER(2);

DROP table DEP cascade constraints;

DROP table COURSE cascade constraints;