

SQL EXPERIMENTS

224G1A05C4 -K. VISHNU SAI EXPERIMENT-1

Creation of Table

The screenshot shows the Oracle SQL Worksheet interface. On the left, there's a sidebar with options like Home, SQL Worksheet (which is selected), My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main area is titled "SQL Worksheet" and contains a message box: "Play SQuizL! A free guess the SQL statement quiz with a new challenge every day. Click [here](#) to give it a shot today!" Below this, a code editor shows the following SQL statement:

```
1 v CREATE TABLE parts(
2     part_id NUMBER PRIMARY KEY,
3     part_name VARCHAR2(50) NOT NULL,
4     unique_code VARCHAR2(20) NOT NULL,
5     manufactured_date DATE NOT NULL,
6     cost NUMBER(10,2) NOT NULL
7 );
```

At the bottom of the code editor, a message says "Table created."

DESC parts DESC Table

The screenshot shows the Oracle SQL Worksheet interface. The sidebar is identical to the previous screenshot. The main area contains a message box: "Play SQuizL! A free guess the SQL statement quiz with a new challenge every day. Click [here](#) to give it a shot today!" Below this, a code editor shows the following SQL statements:

```
1 v CREATE TABLE things(
2     part_id NUMBER PRIMARY KEY,
3     part_name VARCHAR2(50) NOT NULL,
4     unique_code VARCHAR2(20) NOT NULL,
5     manufactured_date DATE NOT NULL,
6     cost NUMBER(10,2) NOT NULL
7 );
8 DESC parts;
9
```

Below the code editor, a table definition is shown:

PART_ID	NOT NULL	NUMBER
PART_NAME	NOT NULL	VARCHAR2(50)
UNIQUE_CODE	NOT NULL	VARCHAR2(20)
MANUFACTURED_DATE	NOT NULL	DATE
COST	NOT NULL	NUMBER(10,2)

ALTER table

The screenshot shows the 'Live SQL' interface with the 'SQL Worksheet' tab selected. On the left sidebar, under 'My Session', there is a 'SQL Worksheet' section. In the main workspace, a yellow warning banner at the top says 'Play SQuizL!' with the subtext 'A free guess the SQL statement quiz with a new challenge every day. Click here to give it a shot today!'. Below the banner, a code editor displays the following SQL statement:

```
1 v ALTER TABLE parts
2   ADD quantity NUMBER NOT NULL;
```

The status bar at the bottom of the workspace shows the message 'Table altered.'

DESC Table(parts)

The screenshot shows the 'Live SQL' interface with the 'SQL Worksheet' tab selected. On the left sidebar, under 'My Session', there is a 'SQL Worksheet' section. In the main workspace, a yellow warning banner at the top says 'Play SQuizL!' with the subtext 'A free guess the SQL statement quiz with a new challenge every day. Click here to give it a shot today!'. Below the banner, a table named 'PARTS' is displayed with the following columns and types:

Column	Null?	Type
PART_ID	NOT NULL	NUMBER
PART_NAME	NOT NULL	VARCHAR2(50)
UNIQUE_CODE	NOT NULL	VARCHAR2(20)
MANUFACTURED_DATE	NOT NULL	DATE
COST	NOT NULL	NUMBER(10,2)
QUANTITY	NOT NULL	NUMBER

A 'Download CSV' button is visible below the table. The status bar at the bottom of the workspace shows the message '6 rows selected.'

MODIFY

The screenshot shows the 'Live SQL' interface with the 'SQL Worksheet' tab selected. On the left sidebar, under 'My Session', there is a 'SQL Worksheet' section. In the main workspace, a yellow warning banner at the top says 'Play SQuizL!' with the subtext 'A free guess the SQL statement quiz with a new challenge every day. Click here to give it a shot today!'. Below the banner, a code editor displays the following SQL statement:

```
1 v ALTER TABLE parts
2   MODIFY manufactured_date DATE
```

The status bar at the bottom of the workspace shows the message 'Table altered.'

Live SQL

SQL Worksheet

Play SQuizL!
A free guess the SQL statement quiz with a new challenge every day. Click [here](#) to give it a shot today!

TABLE PARTS

Column	Null?	Type
PART_ID	NOT NULL	NUMBER
PART_NAME	NOT NULL	VARCHAR2(50)
UNIQUE_CODE	NOT NULL	VARCHAR2(20)
MANUFACTURED_DATE	NOT NULL	DATE
COST	NOT NULL	NUMBER(10,2)
QUANTITY	NOT NULL	NUMBER

Download CSV

6 rows selected.

DROP

Live SQL

SQL Worksheet

Play SQuizL!
A free guess the SQL statement quiz with a new challenge every day. Click [here](#) to give it a shot today!

```
1 v ALTER TABLE parts
2   DROP COLUMN manufactured_date;
```

Table altered.

Live SQL

SQL Worksheet

Play SQuizL!
A free guess the SQL statement quiz with a new challenge every day. Click [here](#) to give it a shot today!

TABLE PARTS

Column	Null?	Type
PART_ID	NOT NULL	NUMBER
PART_NAME	NOT NULL	VARCHAR2(50)
UNIQUE_CODE	NOT NULL	VARCHAR2(20)
COST	NOT NULL	NUMBER(10,2)
QUANTITY	NOT NULL	NUMBER

Download CSV

5 rows selected.

INSERTION

Live SQL

SQL Worksheet

Play SQuizL!
A free guess the SQL statement quiz with a new challenge every day. Click [here](#) to give it a shot today!

```
1 INSERT INTO parts VALUES (101,'XAT','XHJ45689023K',999.89,98);
```

1 row(s) inserted.

Live SQL

SQL Worksheet

Play SQuizL!
A free guess the SQL statement quiz with a new challenge every day. Click [here](#) to give it a shot today!

```
1 select * from PARTS;
```

PART_ID	PART_NAME	UNIQUE_CODE	COST	QUANTITY
101	XAT	XHJ45689023K	999.89	98

Download CSV

TRUNCATE

livesql.oracle.com/apex/f?p=5901:1:12857530024151:::

Live SQL

SQL Worksheet

Play SQuizL!
A free guess the SQL statement quiz with a new challenge every day. Click [here](#) to give it a shot today!

```
1 TRUNCATE TABLE parts;
```

Table truncated.

The screenshot shows a browser window for 'livesql.oracle.com/apex/f?p=590:1:12857530024151::'. The left sidebar has 'SQL Worksheet' selected. The main area displays a SQL worksheet with the following content:

```
Play SQuizL!
A free guess the SQL statement quiz with a new challenge every day. Click here to give it a shot today!
```

```
1 DROP TABLE parts;
```

Below the code, the message "Table dropped." is displayed. At the bottom, a footer bar shows "2024 Oracle - Live SQL 23.4.2, 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".

EXPERIMENT-2

CREATE TABLE

The screenshot shows a browser window for 'livesql.oracle.com/apex/f?p=590:1:12857530024151::'. The left sidebar has 'SQL Worksheet' selected. The main area displays a SQL worksheet with the following content:

```
Play SQuizL!
A free guess the SQL statement quiz with a new challenge every day. Click here to give it a shot today!
```

```
1 CREATE TABLE person(
2     person_id NUMBER PRIMARY KEY,
3     First_name VARCHAR2(50) NOT NULL,
4     Last_name VARCHAR2(50) NOT NULL,
5     phone_no NUMBER(10) NOT NULL
6 )
```

Below the code, the message "Table created." is displayed. At the bottom, a footer bar shows "2024 Oracle - Live SQL 23.4.2, 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".

DESC person

The screenshot shows the SQL Worksheet interface on the livesql.oracle.com website. The left sidebar is titled "SQL Worksheet" and includes links for Home, My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main area displays a table named "PERSON" with the following structure:

Column	Null?	Type
PERSON_ID	NOT NULL	NUMBER
FIRST_NAME	NOT NULL	VARCHAR2(50)
LAST_NAME	NOT NULL	VARCHAR2(50)
PHONE_NO	NOT NULL	NUMBER(10,0)

Below the table, there is a "Download CSV" button and a message indicating "4 rows selected." At the bottom, a footer bar shows the copyright information: "2024 Oracle · Live SQL 23.4.2, 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".

INSERTION

The screenshot shows the SQL Worksheet interface on the livesql.oracle.com website. The left sidebar is titled "SQL Worksheet" and includes links for Home, My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main area contains the following SQL code:

```
1 INSERT INTO person(person_id,first_name,last_name,phone_no) VALUES(1,'Suresh','Krishna',7382790163);
2 INSERT INTO person(person_id,first_name,last_name,phone_no) VALUES(2,'JHON','Cristofer',8548585678);
3 INSERT INTO person(person_id,first_name,last_name,phone_no) VALUES(3,'RAM','SHANKAR',8548585678);
```

After executing the code, the output shows three rows inserted:

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

At the bottom, a footer bar shows the copyright information: "2024 Oracle · Live SQL 23.4.2, 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".

DISPLAY TABLE

The screenshot shows the Oracle Live SQL Worksheet interface. On the left, there's a sidebar with options like Home, SQL Worksheet (which is selected), My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main area is titled "SQL Worksheet" and features a yellow banner at the top with the text "Play SQuizL!" and a message about a daily SQL statement quiz. Below the banner, a code editor window displays the following SQL query:

```
1 SELECT * FROM person;
```

Running this query returns the following result set:

PERSON_ID	FIRST_NAME	LAST_NAME	PHONE_NO
1	Suresh	Krishna	7382790163
2	JHON	Cristofer	8548585678
3	RAM	SHANKAR	8548585678

At the bottom of the interface, there's a footer bar with copyright information: "2024 Oracle · Live SQL 23.4.2, 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".

CREATE TABLE discounts

This screenshot shows the same Oracle Live SQL Worksheet interface as the previous one. The sidebar and banner are identical. In the code editor window, a CREATE TABLE statement is entered:

```
1 v CREATE TABLE discounts(
2 discount_id NUMBER PRIMARY KEY,
3 discount_name VARCHAR2(50) NOT NULL,
4 offer NUMBER(4,2),
5 start_date DATE NOT NULL,
6 end_date DATE NOT NULL,
7 check(end_date>start_date)
8 )
```

After executing the statement, the interface displays the message "Table created." in the results area.

At the bottom of the interface, there's a footer bar with copyright information: "2024 Oracle · Live SQL 23.4.2, 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".

DESC discounts

The screenshot shows the Oracle Live SQL interface. On the left, a sidebar menu is open with options like Home, SQL Worksheet (which is selected), My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main area is titled "SQL Worksheet" and contains a "Play SQuizL!" banner. Below it, there is a table named "DISCOUNTS" with the following columns and data:

Column	Null?	Type
DISCOUNT_ID	NOT NULL	NUMBER
DISCOUNT_NAME	NOT NULL	VARCHAR2(50)
OFFER	-	NUMBER(4,2)
START_DATE	NOT NULL	DATE
END_DATE	NOT NULL	DATE

A "Download CSV" button is visible below the table. A message at the bottom states "5 rows selected."

At the bottom right of the main area, there is a footer note: "2024 Oracle - Live SQL 23.4.2, 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".

INSERT INTO discounts

The screenshot shows the Oracle Live SQL interface. The sidebar menu is identical to the previous screenshot. The main area contains the following SQL code:

```
1 INSERT INTO discounts VALUES (1,'Diwali sales',15.5,DATE'2023-11-10',DATE'2023-11-15');
2 INSERT INTO discounts VALUES (2,'NEW YEAR sales',12,DATE'2023-12-28',DATE'2024-01-05');
```

After executing the code, the output shows two rows inserted:

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

At the bottom right of the main area, there is a footer note: "2024 Oracle - Live SQL 23.4.2, 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".

```
SELECT * FROM discounts;
```

The screenshot shows the LiveSQL interface with the following details:

- Header:** SQL Worksheet, livesql.oracle.com/apex/f?p=590:1:12857530024151::::
- Toolbar:** Feedback, Help, 224g1a05c4@srit.ac.in, Run
- Left Sidebar:** Home, SQL Worksheet (selected), My Session, Schema, Quick SQL, My Scripts, My Tutorials, Code Library.
- Middle Area:** SQL Worksheet section with a yellow banner: "Play SQuizL! A free guess the SQL statement quiz with a new challenge every day. Click [here](#) to give it a shot today!"
- Table Results:** A table showing the results of the query:

DISCOUNT_ID	DISCOUNT_NAME	OFFER	START_DATE	END_DATE
1	Diwali sales	15.5	10-NOV-23	15-NOV-23
2	NEW YEAR sales	12	28-DEC-23	05-JAN-24

Download CSV

2 rows selected.
- Footer:** 2024 Oracle - Live SQL 23.4.2, running Oracle Database 19c EE Extreme Perf - 19.17.0.0.0 · Database Documentation · Ask Tom · Dev Gym
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```
CREATE TABLE original_bill
```

The screenshot shows the Oracle Live SQL Worksheet interface. On the left, there's a sidebar with options like Home, SQL Worksheet (which is selected), My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main area is titled "SQL Worksheet" and contains a yellow banner with the text "Play SQuizL!" and a message about a daily SQL statement quiz. Below the banner is a code editor window showing the following SQL code:

```
1 v CREATE TABLE original_bill(
2     product_no NUMBER PRIMARY KEY,
3     product_name VARCHAR2(110) NOT NULL,
4     quantity NUMBER NOT NULL,
5     cost NUMBER(10,2) NOT NULL
6 );
7
```

After running the code, the message "Table created." is displayed below the code editor. At the bottom of the screen, there's a footer bar with the text "2024 Oracle · Live SQL 23.4.2, 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".

INSERTION

The screenshot shows the Oracle Live SQL Worksheet interface. The sidebar and main area are identical to the previous screenshot, with the "SQL Worksheet" option selected. The code editor window now contains the following SQL code:

```
1 v INSERT ALL
2     INTO original_bill(product_no,product_name,quantity,cost) VALUES(1,'ABC',2,29.9)
3     INTO original_bill(product_no,product_name,quantity,cost) VALUES(2,'AB34',5,89)
4     INTO original_bill(product_no,product_name,quantity,cost) VALUES(3,'JK98',1,75)
5     INTO original_bill(product_no,product_name,quantity,cost) VALUES(4,'KL77',2,99)
6     INTO original_bill(product_no,product_name,quantity,cost) VALUES(5,'NM87',1,50)
7     SELECT * FROM dual;
```

After running the code, the message "5 row(s) inserted." is displayed below the code editor. The footer bar at the bottom of the screen is identical to the one in the first screenshot.

`SELECT * FROM original_bill`

The screenshot shows the Oracle Live SQL Worksheet interface. The left sidebar has a 'SQL Worksheet' tab selected. The main area displays a table with 5 rows of data:

PRODUCT_NO	PRODUCT_NAME	QUANTITY	COST
1	ABC	2	29.9
2	AB34	5	89
3	JK98	1	75
4	KL77	2	99
5	NM87	1	50

Below the table, there is a 'Download CSV' button and a message stating '5 rows selected.' At the bottom of the page, there is footer text: '2024 Oracle - Live SQL 23.4.2, 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'.

`CREATE TABLE copy_bill`

The screenshot shows the Oracle Live SQL Worksheet interface. On the left, there's a sidebar with options like Home, SQL Worksheet (which is selected), My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main area is titled "SQL Worksheet" and contains a yellow banner with the text "Play SQuizL!" and a message about a daily SQL statement quiz. Below the banner, the following SQL code is shown:

```
1 v CREATE TABLE copy_bill(
2   product_no NUMBER PRIMARY KEY,
3   product_name VARCHAR2(50) NOT NULL,
4   quantity NUMBER NOT NULL,
5   cost NUMBER(10,2) NOT NULL
6 );
7
```

After running the code, the message "Table created." is displayed. At the bottom of the screen, there's a footer with copyright information: "2024 Oracle · Live SQL 23.4.2, 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".

INSERT INTO copy_bill

SELECT * FROM original_bill;

The screenshot shows the Oracle Live SQL Worksheet interface. The sidebar and banner are identical to the previous screenshot. The main area now contains the following SQL code:

```
1 v INSERT INTO copy_bill
2   SELECT * FROM original_bill;
```

After running the code, the message "5 row(s) inserted." is displayed. The footer at the bottom of the screen is identical to the previous one.

DESC copy_bill;

The screenshot shows the Oracle Live SQL Worksheet interface. On the left, a sidebar menu includes Home, SQL Worksheet (which is selected), My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main area displays the SQL Worksheet titled "SQL Worksheet". A yellow banner at the top says "Play SQuizL!" with the text "A free guess the SQL statement quiz with a new challenge every day. Click [here](#) to give it a shot today!". Below the banner, a table named "COPY_BILL" is shown with the following structure:

Column	Null?	Type
PRODUCT_NO	NOT NULL	NUMBER
PRODUCT_NAME	NOT NULL	VARCHAR2(50)
QUANTITY	NOT NULL	NUMBER
COST	NOT NULL	NUMBER(10,2)

Below the table, there is a "Download CSV" button and a message stating "4 rows selected.". At the bottom right of the worksheet area, there is a footer with the text "2024 Oracle · Live SQL 23.4.2, 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".

`SELECT * FROM copy_bill;`

The screenshot shows the Oracle Live SQL Worksheet interface after executing the query. The main area displays the SQL Worksheet titled "SQL Worksheet". A yellow banner at the top says "Play SQuizL!" with the text "A free guess the SQL statement quiz with a new challenge every day. Click [here](#) to give it a shot today!". Below the banner, the results of the query are shown in a table:

PRODUCT_NO	PRODUCT_NAME	QUANTITY	COST
1	ABC	2	29.9
2	AB34	5	89
3	JK98	1	75
4	KL77	2	99
5	NM87	1	50

Below the table, there is a "Download CSV" button and a message stating "5 rows selected.". At the bottom right of the worksheet area, there is a footer with the text "2024 Oracle · Live SQL 23.4.2, 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".

`UPDATE copy_bill`

The screenshot shows the Oracle Live SQL Worksheet interface. On the left, a sidebar menu includes Home, SQL Worksheet (which is selected), My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main workspace is titled "SQL Worksheet" and contains a yellow banner with the text "Play SQuizL!" and a message about a daily SQL statement quiz. Below the banner, a code editor shows the following SQL statement:

```
1 ✓ UPDATE copy_bill  
2     SET cost=70  
3 WHERE product_no=1;
```

After running the statement, the output shows "1 row(s) updated." At the bottom of the workspace, a footer bar displays the text "2024 Oracle · Live SQL 23.4.2, 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".

This screenshot is similar to the first one, showing the Oracle Live SQL Worksheet interface. The sidebar menu is identical. The main workspace shows a yellow banner with "Play SQuizL!" and a daily SQL statement quiz message. Below the banner, a code editor shows the following SQL statement:

```
1  
2 SELECT * FROM copy_bill WHERE product_no=1;  
3
```

Running this statement results in a data grid displaying the following table:

PRODUCT_NO	PRODUCT_NAME	QUANTITY	COST
1	ABC	2	70

Below the table is a "Download CSV" button. The footer bar at the bottom of the workspace displays the text "2024 Oracle · Live SQL 23.4.2, 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".

EXPERIMENT-3

Create table student

The screenshot shows the 'SQL Worksheet' interface on the livesql.oracle.com website. On the left, a sidebar menu includes 'Home', 'SQL Worksheet' (which is selected), 'My Session', 'Schema', 'Quick SQL', 'My Scripts', 'My Tutorials', and 'Code Library'. The main workspace displays the following SQL code:

```
1 v CREATE TABLE students(
2   ID NUMBER(10) PRIMARY KEY,
3   name VARCHAR2(50) ,
4   gender CHAR,
5   mobile_no NUMBER(10),
6   dept VARCHAR2(5)
7 );
```

Below the code, a message says 'Table created.'.

At the bottom right of the workspace, there is a footer bar with links: 'Feedback', 'Help', '224g1a05c4@srit.ac.in', 'Clear', 'Find', 'Actions', 'Save', and a green 'Run' button.

DESC students

The screenshot shows the 'SQL Worksheet' interface on the livesql.oracle.com website. The sidebar menu is identical to the previous screenshot. The main workspace displays the following SQL code:

```
1 v DESC STUDENTS
```

Below the code, a table titled 'STUDENTS' is shown with the following columns and types:

Column	Null?	Type
ID	NOT NULL	NUMBER(10,0)
NAME	-	VARCHAR2(50)
GENDER	-	CHAR(1)
MOBILE_NO	-	NUMBER(10,0)
DEPT	-	VARCHAR2(5)

Below the table, there is a 'Download CSV' button. A message at the bottom of the workspace says '5 rows selected.'

At the bottom right of the workspace, there is a footer bar with links: 'Feedback', 'Help', '224g1a05c4@srit.ac.in', 'Clear', 'Find', 'Actions', 'Save', and a green 'Run' button.

The screenshot shows the Oracle Live SQL worksheet interface. On the left, a sidebar lists navigation options: Home, SQL Worksheet (which is selected), My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main workspace displays a SQL query window with the following content:

```
1 v INSERT ALL
2   INTO students VALUES (510,'Raju','M',7648982567,'CSE')
3   INTO students VALUES (339,'Suresh','M',7839265709,'CSM')
4   INTO students VALUES (289,'Krishna','M',6289106653,'EEE')
5   INTO students VALUES (501,'Alex','M',9286470178,'CSE')
6   INTO students VALUES (145,'Harsha','M',7459026841,'ECE')
7   INTO students VALUES (505,'Aravind','M',8468464937,'CSE')
8   SELECT * FROM DUAL;
9
```

Below the code, the message "6 row(s) inserted." is displayed. At the bottom of the workspace, a footer bar includes links to "Feedback", "Help", and "224g1a05c4@srit.ac.in", along with standard browser control buttons.

SELECT * FROM students;

The screenshot shows the Oracle Live SQL worksheet interface. The sidebar and overall layout are identical to the previous screenshot. The main workspace now displays the results of the executed query:

ID	NAME	GENDER	MOBILE_NO	DEPT
510	Raju	M	7648982567	CSE
339	Suresh	M	7839265709	CSM
289	Krishna	M	6289106653	EEE
501	Alex	M	9286470178	CSE
145	Harsha	M	7459026841	ECE
505	Aravind	M	8468464937	CSE

Below the table, a "Download CSV" button is visible. The message "6 rows selected." is displayed at the bottom of the workspace. The footer bar at the bottom includes links to "Feedback", "Help", and "224g1a05c4@srit.ac.in", along with standard browser control buttons.

CREATE VIEW

The screenshot shows the Oracle Live SQL interface. The left sidebar has 'SQL Worksheet' selected. The main area displays the following SQL code:

```
1 CREATE VIEW std AS SELECT id,name,dept FROM students;
```

Below the code, a message says "View created." At the bottom, there is footer information: "2024 Oracle - Live SQL 23.4.2, 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 screenshot shows the Oracle Live SQL interface. The left sidebar has 'SQL Worksheet' selected. The main area displays the following SQL code:

```
1 CREATE VIEW cse_std AS SELECT id,name,gender,dept FROM students WHERE dept='CSE';
```

Below the code, a message says "View created." At the bottom, there is footer information: "2024 Oracle - Live SQL 23.4.2, 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".

SELECT * FROM cse_std;

The screenshot shows the Oracle Live SQL worksheet interface. On the left, there's a sidebar with options like Home, SQL Worksheet (which is selected), My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main area has a banner for 'Play SQuizL!' followed by a code editor window containing the SQL statement: '1 SELECT * FROM cse_std;'. Below the code is a table output:

ID	NAME	GENDER	DEPT
510	Raju	M	CSE
501	Alex	M	CSE
505	Aravind	M	CSE

At the bottom of the interface, there's a footer bar with links to Oracle documentation and terms of use.

SELECT * FROM std;

The screenshot shows the Oracle Live SQL worksheet interface. The sidebar and overall layout are identical to the previous screenshot. The code editor window contains the SQL statement: '1 SELECT * FROM std;'. Below the code is a table output:

ID	NAME	DEPT
510	Raju	CSE
339	Suresh	CSM
289	Krishna	EEE
501	Alex	CSE
145	Harsha	ECE
505	Aravind	CSE

Below the table, there's a button labeled 'Download CSV' and a message stating '6 rows selected.' At the bottom of the interface, there's a footer bar with links to Oracle documentation and terms of use.

```
INSERT INTO std VALUES (509,'Baba','CSE');
```

The screenshot shows the Oracle Live SQL Worksheet interface. The left sidebar has a 'SQL Worksheet' tab selected. The main area displays the SQL statement: `INSERT INTO std VALUES (509,'Baba','CSE');`. Below the statement, the output shows: `1 row(s) inserted.`. At the bottom, a footer bar indicates: `2024 Oracle - Live SQL 23.4.2, 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`.

```
SELECT * FROM cse_std;
```

The screenshot shows the Oracle Live SQL Worksheet interface. The left sidebar has a 'SQL Worksheet' tab selected. The main area displays the SQL statement: `SELECT * FROM cse_std;`. The result is a table with four rows:

ID	NAME	GENDER	DEPT
510	Raju	M	CSE
501	Alex	M	CSE
505	Aravind	M	CSE
509	Baba	-	CSE

Below the table, there is a `Download CSV` button and the message `4 rows selected.`. At the bottom, a footer bar indicates: `2024 Oracle - Live SQL 23.4.2, 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`.

```
UPDATE cse_std SET name='Balaji' WHERE ID=510;
```

The screenshot shows the Oracle Live SQL interface. On the left, there's a sidebar with options like Home, SQL Worksheet (which is selected), My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main area is titled "SQL Worksheet" and contains a message box for "Play SQuizL!" followed by the SQL code: `1 UPDATE cse_std SET name='Balaji' WHERE ID=510;`. Below the code, the output shows: `1 row(s) updated.`. At the bottom, there's a footer with copyright information: `2024 Oracle - Live SQL 23.4.2, 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`.

```
SELECT * FROM cse_std;
```

This screenshot is similar to the previous one, showing the Oracle Live SQL interface. The sidebar and main workspace are identical, including the "Play SQuizL!" message and the SQL code: `1 SELECT * FROM cse_std;`. The output section displays a table with four rows of data:

ID	NAME	GENDER	DEPT
510	Balaji	M	CSE
501	Alex	M	CSE
505	Aravind	M	CSE

Below the table, there's a "Download CSV" button and the message `4 rows selected.`

```
DELETE FROM cse_std WHERE id=501;
```

Live SQL

SQL Worksheet

Play SQuizL!
A free guess the SQL statement quiz with a new challenge every day. Click [here](#) to give it a shot today!

```
1 DELETE FROM cse_std WHERE id=501;
```

1 row(s) deleted.

Live SQL

SQL Worksheet

Play SQuizL!
A free guess the SQL statement quiz with a new challenge every day. Click [here](#) to give it a shot today!

```
1 DELETE FROM cse_std WHERE id=501;
2
```

0 row(s) deleted.

SELECT * FROM cse_std;

Live SQL

SQL Worksheet

Play SQuizL!
A free guess the SQL statement quiz with a new challenge every day. Click [here](#) to give it a shot today!

```
1 SELECT * FROM cse_std;
```

ID	NAME	GENDER	DEPT
510	Balaji	M	CSE
505	Aravind	M	CSE
509	Baba	-	CSE

CREATE VIEW eee_std AS SELECT ID,NAME,mobile_no FROM students WHERE dept='EEE';

Live SQL

SQL Worksheet

Play SQuizL!
A free guess the SQL statement quiz with a new challenge every day. Click [here](#) to give it a shot today!

```
1 CREATE VIEW eee_std AS SELECT ID,NAME,mobile_no FROM students WHERE dept='EEE';
```

View created.

SELECT * FROM eee_std;

Live SQL

SQL Worksheet

Play SQuizL!
A free guess the SQL statement quiz with a new challenge every day. Click [here](#) to give it a shot today!

```
1 SELECT * FROM eee_std;
```

ID	NAME	MOBILE_NO
289	Krishna	6289106653

[Download CSV](#)

Live SQL

SQL Worksheet

Play SQuizL!
A free guess the SQL statement quiz with a new challenge every day. Click [here](#) to give it a shot today!

```
1 DELETE FROM eee_std;
```

1 row(s) deleted.

SELECT * FROM eee_std;

Live SQL

Home SQL Worksheet

My Session Schema Quick SQL My Scripts My Tutorials Code Library

Play SQuizL! A free guess the SQL statement quiz with a new challenge every day. Click [here](#) to give it a shot today!

```
1 SELECT * FROM eee_std;
```

no data found

DROP VIEW

Live SQL

Home SQL Worksheet

My Session Schema Quick SQL My Scripts My Tutorials Code Library

Play SQuizL! A free guess the SQL statement quiz with a new challenge every day. Click [here](#) to give it a shot today!

```
1 DROP VIEW eee_std;
```

View dropped.

EXPERIMENT-4

Create table

Live SQL

Home SQL Worksheet

My Session Schema Quick SQL My Scripts My Tutorials Code Library

Play SQuizL! A free guess the SQL statement quiz with a new challenge every day. Click [here](#) to give it a shot today!

```
1 v CREATE TABLE instructor(
2   ins_id NUMBER(10) PRIMARY KEY,
3   ins_name VARCHAR2(25) NOT NULL,
4   dep_name VARCHAR2(10) NOT NULL,
5   salary NUMBER(10,0)
6 );
```

Table created.

Live SQL

SQL Worksheet

Play SQuizL!

A free guess the SQL statement quiz with a new challenge every day. Click [here](#) to give it a shot today!

```

1 v CREATE TABLE department(
2     dep_id NUMBER(10) PRIMARY KEY,
3     dep_name VARCHAR2(10) NOT NULL,
4     building VARCHAR2(10) NOT NULL,
5     budget NUMBER(10)
6 );

```

Table created.

INSERTION

Live SQL

SQL Worksheet

Play SQuizL!

A free guess the SQL statement quiz with a new challenge every day. Click [here](#) to give it a shot today!

```

1 v INSERT ALL
2     INTO instructor VALUES (1,'Suresh','cse',40000)
3     INTO instructor VALUES (2,'Mahesh','csd',37000)
4     INTO instructor VALUES (3,'Aravind','csm',20000)
5     INTO instructor VALUES (4,'Jagadeesh','cse',50000)
6     INTO instructor VALUES (5,'Raju','physics',20000)
7     INTO instructor VALUES (6,'Somesh','EEE',30000)
8     INTO instructor VALUES (7,'Ravi','civil',35000)
9     INTO department VALUES (1,'cse','gandhi',3500000)
10    INTO department VALUES (2,'csm','b_block',1000000)
11    INTO department VALUES (3,'ECE','d_block',1500000)
12    INTO department VALUES (4,'EEE','c_block',2000000)
13    SELECT * FROM dual;

```

11 row(s) inserted.

`SELECT * FROM INSTRUCTOR;`

Live SQL

SQL Worksheet

Play SQuizL!

A free guess the SQL statement quiz with a new challenge every day. Click [here](#) to give it a shot today!

INS_ID	INS_NAME	DEP_NAME	SALARY
1	Suresh	cse	40000
2	Mahesh	csd	37000
3	Aravind	csm	20000
4	Jagadeesh	cse	50000
5	Raju	physics	20000
6	Somesh	EEE	30000
7	Ravi	civil	35000

Download CSV

7 rows selected.

SELECT * FROM department;

The screenshot shows the Oracle Live SQL Worksheet interface. The left sidebar has a 'SQL Worksheet' tab selected. The main area displays the results of the executed SQL statement:

DEP_ID	DEP_NAME	BUILDING	BUDGET
1	cse	gandhi	3500000
2	csm	b_block	1000000
3	ECE	d_block	1500000
4	EEE	c_block	2000000

Below the table, a button labeled 'Download CSV' is visible. A message at the bottom indicates '4 rows selected.'

At the very bottom of the page, there is footer text: '2024 Oracle - Live SQL 23.4.2, 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'.

UNION

SELECT dep_name FROM instructor UNION SELECT dep_name FROM department;

The screenshot shows the Oracle Live SQL interface. On the left, a sidebar menu includes Home, SQL Worksheet (which is selected), My Session, Quick SQL, My Scripts, My Tutorials, and Code Library. The main workspace displays a query results grid with the following data:

DEP_NAME
ECE
EEE
civil
csd
cse
CSM
physics

Below the grid, there is a "Download CSV" button and a message indicating "7 rows selected." At the bottom of the screen, a footer bar displays the text: "2024 Oracle · Live SQL 23.4.2, running Oracle Database 19c EE Extreme Perf - 19.17.0.0.0 · Database Documentation · Ask Tom · Dev Gym · Built with ❤️ using Oracle APEX · Privacy · Terms of Use".

UNION ALL

`SELECT dep_name FROM instructor UNION ALL SELECT dep_name FROM department;`

The screenshot shows the Oracle Live SQL interface. The sidebar menu is identical to the previous one. The main workspace displays a query results grid with the following data:

DEP_NAME
cse
csd
csm
cse
physics
EEE
civil
cse
csm
ECE
EEE

INTERSECT

Live SQL

SQL Worksheet

Play SQuizL!
A free guess the SQL statement quiz with a new challenge every day. Click [here](#) to give it a shot today!

```
1 v SELECT dep_name FROM instructor  
2     INTERSECT  
3     SELECT dep_name FROM department;
```

DEP_NAME
EEE
cse
CSM

[Download CSV](#)

3 rows selected.

MINUS

Live SQL

SQL Worksheet

```
1 v SELECT dep_name FROM department  
2     MINUS  
3     SELECT dep_name FROM instructor;
```

DEP_NAME
ECE

[Download CSV](#)

FROM

The screenshot shows the Oracle Live SQL interface. The left sidebar has sections like 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 code:

```
1 SELECT i.ins_name,d.dep_name,d.budget FROM instructor i,department d;
```

The results are displayed in a table:

INS_NAME	DEP_NAME	BUDGET
Suresh	cse	3500000
Mahesh	cse	3500000
Aravind	cse	3500000
Jagadeesh	cse	3500000
Raju	cse	3500000
Somesh	cse	3500000
Ravi	cse	3500000
Suresh	csm	1000000
Mahesh	csm	1000000
Aravind	csm	1000000
Jagadeesh	csm	1000000

CROSS JOIN

The screenshot shows the Oracle Live SQL interface. The left sidebar has sections like 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 code:

```
1 SELECT i.ins_name,d.dep_name,d.budget FROM instructor i CROSS JOIN department d;
```

The results are displayed in a table:

INS_NAME	DEP_NAME	BUDGET
Suresh	cse	3500000
Mahesh	cse	3500000
Aravind	cse	3500000
Jagadeesh	cse	3500000
Raju	cse	3500000
Somesh	cse	3500000
Ravi	cse	3500000
Suresh	csm	1000000
Mahesh	csm	1000000
Aravind	csm	1000000
Jagadeesh	csm	1000000

At the bottom of the interface, there is a footer with the text: "2024 Oracle · Live SQL 23.4.2, 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".

NATURAL JOIN

The screenshot shows a SQL worksheet interface. On the left is a sidebar with options: Home, SQL Worksheet (which is selected), My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main area displays a query result. The query is:

```
1 SELECT i.ins_name,dep_name,d.budget FROM instructor i NATURAL JOIN department d;
```

The result is a table with four rows:

INS_NAME	DEP_NAME	BUDGET
Suresh	cse	3500000
Aravind	csm	1000000
Jagadeesh	cse	3500000
Somesh	EEE	2000000

Below the table, there is a "Download CSV" button and a message: "4 rows selected."

EXPERIMENT-5

CREATE TABLE

The screenshot shows a SQL worksheet interface. On the left is a sidebar with options: Home, SQL Worksheet (which is selected), My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main area displays a query result. The query is:

```
1 v CREATE TABLE EMPLOYEE(2 id NUMBER PRIMARY KEY,3 name VARCHAR2(50) NOT NULL,4 salary NUMBER5 );
```

The result is a message: "Table created."

Live SQL

Home SQL Worksheet My Session Schema Quick SQL My Scripts My Tutorials Code Library

```
1 v CREATE TABLE departments(
2   id NUMBER PRIMARY KEY,
3   dept_name VARCHAR2(50)
4 );
```

Table created.

INSERTION

Live SQL

Home SQL Worksheet My Session Schema Quick SQL My Scripts My Tutorials Code Library

```
1 v INSERT ALL
2   INTO EMPLOYEE VALUES (1,'Ram',70000)
3   INTO EMPLOYEE VALUES (2,'Sham',null)
4   INTO EMPLOYEE VALUES (3,'Venkat',30000)
5   INTO departments VALUES (1,'CSE')
6   INTO departments VALUES (2,'EEE')
7   INTO departments VALUES (3,'CSM')
8   SELECT * FROM dual;
```

6 row(s) inserted.

Live SQL

Home SQL Worksheet My Session Schema Quick SQL My Scripts My Tutorials Code Library

```
1 SELECT * FROM department;
```

DEP_ID	DEP_NAME	BUILDING	BUDGET
1	cse	gandhi	3500000
2	csm	b_block	1000000
3	ECE	d_block	1500000
4	EEE	c_block	2000000

Download CSV

4 rows selected.

Live SQL

SQL Worksheet

```
1 SELECT * FROM EMPLOYEE;
```

ID	NAME	SALARY
1	Ram	70000
2	Sham	-
3	Venkat	30000

Download CSV

3 rows selected.

NULL

Live SQL

SQL Worksheet

```
1 v SELECT * FROM EMPLOYEE
2 WHERE
3 salary IS NULL;
```

ID	NAME	SALARY
2	Sham	-

Download CSV

BETWEEN

Live SQL

SQL Worksheet

```
1 v SELECT * FROM EMPLOYEE
2   WHERE
3     salary BETWEEN 10000 AND 80000;
```

ID	NAME	SALARY
1	Ram	70000
3	Venkat	30000

Download CSV

2 rows selected.

LIKE

Live SQL

SQL Worksheet

```
1 v SELECT * FROM EMPLOYEE
2   WHERE
3     name LIKE 'R%';
```

ID	NAME	SALARY
1	Ram	70000
3	Venkat	30000

Download CSV

2 rows selected.

Live SQL

SQL Worksheet

```
1 v SELECT * FROM EMPLOYEE
2   WHERE
3     name LIKE '_ _';
```

SQL Statement Output

IN

The screenshot shows the 'Live SQL' interface with a dark theme. The left sidebar includes '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:

```
1 v SELECT * FROM EMPLOYEE
2      WHERE
3          name LIKE '__';
```

Below the code, the status bar says 'SQL Statement Output'.

EXPERIMENT-8

CREATE TABLE

The screenshot shows the 'Live SQL' interface with a dark theme. The left sidebar includes '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:

```
1 v CREATE TABLE names(
2     first_name VARCHAR2(30)
3     ) NOT NULL,
4     LAST_name VARCHAR2(30) NOT NULL
5 );
6
```

Below the code, the status bar says 'Table created.'

INSERTION

The screenshot shows the 'Live SQL' interface with a dark theme. The left sidebar includes '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:

```
1 v INSERT ALL
2     INTO names VALUES ('Antony','Robert')
3     INTO names VALUES ('Mark','Antony')
4     INTO names VALUES ('Stuart','Smart')
5     INTO names VALUES ('Rakesh','k')
6     select * from dual;
```

Below the code, the status bar says '4 row(s) inserted.'

Live SQL

Home SQL Worksheet

My Session Schema Quick SQL My Scripts My Tutorials Code Library

```
1 SELECT LOWER(first_name) FROM names;
```

LOWER(FIRST_NAME)
antony
mark
stuart
rakesh

Download CSV

4 rows selected.

Feedback Help 224g1a05c4@srit.ac.in

Clear Find Actions Save Run

The screenshot shows a SQL worksheet interface with a dark theme. On the left is a sidebar with navigation links: Home, SQL Worksheet (which is selected), My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main area contains a code editor with the following SQL query:

```
1 SELECT LOWER(first_name) FROM names;
```

Below the code editor is a results table with one column labeled "LOWER(FIRST_NAME)". The table contains four rows with the values "antony", "mark", "stuart", and "rakesh". There is a "Download CSV" button below the table. A message at the bottom states "4 rows selected.".

The top right corner of the interface includes standard application icons for Feedback, Help, user information, and a light/dark mode switch. The bottom right corner has buttons for Clear, Find, Actions (with a dropdown arrow), Save, and Run (with a play icon).

Live SQL

SQL Worksheet

```
1 | SELECT UPPER(first_name) FROM names;
```

UPPER(FIRST_NAME)
ANTONY
MARK
STUART
RAKESH

[Download CSV](#)

4 rows selected.

Feedback Help 224g1a05c4@srit.ac.in Run

Live SQL

SQL Worksheet

```
1 | SELECT INITCAP(first_name) FROM names;
```

INITCAP(FIRST_NAME)
Antony
Mark
Stuart
Rakesh

[Download CSV](#)

4 rows selected.

Feedback Help 224g1a05c4@srit.ac.in Run

Live SQL

SQL Worksheet

```
1 SELECT CONCAT(first_name,last_name) FROM names;
```

My Session >

Schema

Quick SQL >

My Scripts

My Tutorials

Code Library

CONCAT(FIRST_NAME, LAST_NAME)
AntonyRobert
MarkAntony
StuartSmart
Rakeshk

Download CSV

4 rows selected.

Feedback Help 224g1a05c4@srit.ac.in Run

Live SQL

SQL Worksheet

```
1 SELECT SUBSTR(first_name,1,4) FROM names;
```

My Session >

Schema

Quick SQL >

My Scripts

My Tutorials

Code Library

SUBSTR(FIRST_NAME,1,4)
Anto
Mark
Stua
Rake

Download CSV

4 rows selected.

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Live SQL

SQL Worksheet

```
1 SELECT LENGTH(first_name) FROM names;
```

LENGTH(FIRST_NAME)
6
4
6
6

[Download CSV](#)

4 rows selected.

Live SQL

SQL Worksheet

```
1 SELECT INSTR(first_name,'Ma') FROM names;
```

INSTR(FIRST_NAME,'MA')
0
1
0
0

[Download CSV](#)

4 rows selected.

Live SQL

SQL Worksheet

```
1 SELECT TRIM(' ' FROM first_name) FROM names;
```

TRIM(' ' FROM FIRST_NAME)
Antony
Mark
Stuart
Rakesh

[Download CSV](#)

4 rows selected.

Live SQL

SQL Worksheet

```
1 SELECT ROUND(11.111,2) FROM dual;
```

ROUND(11.111,2)
11.11

Download CSV

SQL Worksheet

```
1 SELECT MOD(11,2) FROM dual;
```

MOD(11,2)
1

Download CSV

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The screenshot shows the Oracle Live SQL interface. On the left, a sidebar menu includes Home, SQL Worksheet (which is selected), My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main workspace is titled "SQL Worksheet". It contains the following SQL code:

```
1 SELECT SYSDATE FROM dual;
```

The result pane shows the output of the query:

SYSDATE
08-JAN-24

At the bottom right of the workspace, there is a "Download CSV" button.

At the very bottom of the screen, a footer bar displays the text: "2024 Oracle · Live SQL 23.4.2, 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".

This screenshot is identical to the one above, except the SQL code in the workspace has changed to:

```
1 SELECT MONTHS_BETWEEN(SYSDATE, '08-DEC-2024') FROM dual;
```

The result pane shows the output of the query:

MONTHS_BETWEEN(SYSDATE, '08-DEC-2024')
-11

At the bottom right of the workspace, there is a "Download CSV" button.

At the very bottom of the screen, a footer bar displays the text: "2024 Oracle · Live SQL 23.4.2, 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 image consists of three vertically stacked screenshots of a SQL worksheet interface, likely from Oracle Database SQL Developer or a similar tool. Each screenshot shows a sidebar on the left with options like Home, SQL Worksheet, My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main area is titled "SQL Worksheet".

Screenshot 1: The code entered is `SELECT NEXT_DAY(SYSDATE, 'MONDAY') FROM dual;`. The result is displayed in a table:

NEXT_DAY(SYSDATE, 'MONDAY')
15-JAN-24

Screenshot 2: The code entered is `SELECT LAST_DAY(SYSDATE) FROM dual;`. The result is displayed in a table:

LAST_DAY(SYSDATE)
31-JAN-24

Screenshot 3: The code entered is `SELECT ADD_MONTHS(SYSDATE,12) FROM dual;`. The result is displayed in a table:

ADD_MONTHS(SYSDATE,12)
08-JAN-25

EXPERIMENT-9

Create table

Live SQL

SQL Worksheet

```
1 v CREATE TABLE stud(
2   ID NUMBER PRIMARY KEY,
3   first_name VARCHAR2(25)
4   (25) NOT NULL,
5   last_name VARCHAR2(25) NOT NULL
6 );
```

Table created.

Live SQL

SQL Worksheet

```
1 v CREATE TABLE orders(
2   id NUMBER PRIMARY KEY,
3   order_num NUMBER NOT NULL,
4   stud_id NUMBER REFERENCES stud(id)
5 );
```

Table created.

Live SQL

SQL Worksheet

```
1 v CREATE TABLE employees(
2   id NUMBER PRIMARY KEY,
3   name VARCHAR2(50) NOT NULL,
4   e_mail VARCHAR2(50) UNIQUE
5 );
```

Table created.

INSERTION

Live SQL

SQL Worksheet

```
1 INSERT INTO orders VALUES (11,2,111);
```

1 row(s) inserted.

The screenshot shows the 'Live SQL' application interface. On the left, there's a sidebar with navigation links: Home, SQL Worksheet (which is selected and highlighted in yellow), My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main workspace is titled 'SQL Worksheet'. It contains the following SQL code:

```
1 v CREATE TABLE order1(
2   id NUMBER PRIMARY KEY,
3   product_name VARCHAR2(50) NOT NULL,
4   quantity NUMBER
5 );
```

Below the code, the message 'Table created.' is displayed.

EXPERIMENT-10

This screenshot shows the same 'Live SQL' interface. The sidebar and workspace layout are identical. The workspace contains the following PL/SQL block:

```
1 v DECLARE
2   fac NUMBER :=1;
3   n NUMBER :=4;
4 v BEGIN
5   WHILE n>0 LOOP
6     fac:=n*fac;
7     n:=n-1;
8   END LOOP;
9   DBMS_OUTPUT.PUT_LINE(FAC);
10 END;
```

Below the code, the message 'Statement processed.' is displayed, followed by the number '24'.

At the bottom of the workspace, there is a footer with the text: '2024 Oracle - Live SQL 24.1.2, 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'.

EXPERIMENT-11

The screenshot shows the Oracle Live SQL Worksheet interface. The left sidebar has a 'SQL Worksheet' tab selected. The main area contains the following PL/SQL code:

```
1 v DECLARE
2 n NUMBER;
3 i NUMBER;
4 temp NUMBER;
5 v BEGIN
6 n := 13;
7 i := 2;
8 temp := 1;
9 v FOR i IN 2..n/2
10 LOOP
11 IF MOD(n, i) = 0
12 THEN
13 temp := 0;
14 EXIT;
15 END IF;
16 END LOOP;
17 v IF temp = 1
18 THEN
19 DBMS_OUTPUT.PUT_LINE(n||' is a prime number');
20 ELSE
21 DBMS_OUTPUT.PUT_LINE(n||' is not a prime number');
22 END IF;
23 END;
```

The output window below the code shows the results of running the script:

```
Statement processed.
13 is a prime number
```

At the bottom, the footer indicates: "2024 Oracle · Live SQL 24.1.2, 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".

EXPERIMENT-12

The screenshot shows the Oracle Live SQL Worksheet interface. The left sidebar has a 'SQL Worksheet' tab selected. The main area contains the following PL/SQL code:

```
1 v DECLARE
2 FIRST NUMBER := 0;
3 SECOND NUMBER := 1;
4 TEMP NUMBER;
5 N NUMBER := 5;
6 I NUMBER;
7 v BEGIN
8 DBMS_OUTPUT.PUT_LINE('SERIES:');
9 DBMS_OUTPUT.PUT_LINE(FIRST);
10 DBMS_OUTPUT.PUT_LINE(SECOND);
11 v FOR I IN 2..N
12 LOOP
13 TEMP:=FIRST+SECOND;
14 FIRST := SECOND;
15 SECOND := TEMP;
16 DBMS_OUTPUT.PUT_LINE(TEMP);
17 END LOOP;
18 END;
```

The output window below the code shows the results of running the script:

```
Statement processed.
SERIES:
0
1
1
2
3
5
```

At the bottom, the footer indicates: "2024 Oracle · Live SQL 24.1.2, 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".

EXPERIMENT-13

CREATION OF TABLE

The screenshot shows the Oracle Live SQL interface. In the SQL Worksheet pane, the following code is run:

```
1 CREATE TABLE WATER(ID NUMBER(10) PRIMARY KEY,NAME VARCHAR2(100));
2 v CREATE OR REPLACE PROCEDURE INSERTUSER
3   (ID IN NUMBER,
4    NAME IN VARCHAR2)
5   IS
6   BEGIN
7   INSERT INTO SAILOR VALUES(ID,NAME);
8   DBMS_OUTPUT.PUT_LINE('RECORD INSERTED SUCCESSFULLY');
9 END;
```

The output shows the table and procedure were created successfully.

Table created.
Procedure created.

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The screenshot shows the Oracle Live SQL interface. In the SQL Worksheet pane, the following PL/SQL block is run:

```
1 v DECLARE
2   CNT NUMBER;
3 v BEGIN
4   INSERTUSER(101,'NARASIMHA');
5   SELECT COUNT(*) INTO CNT FROM SAILOR;
6   DBMS_OUTPUT.PUT_LINE(CNT||' RECORD IS INSERTED SUCCESSFULLY');
7 END;
```

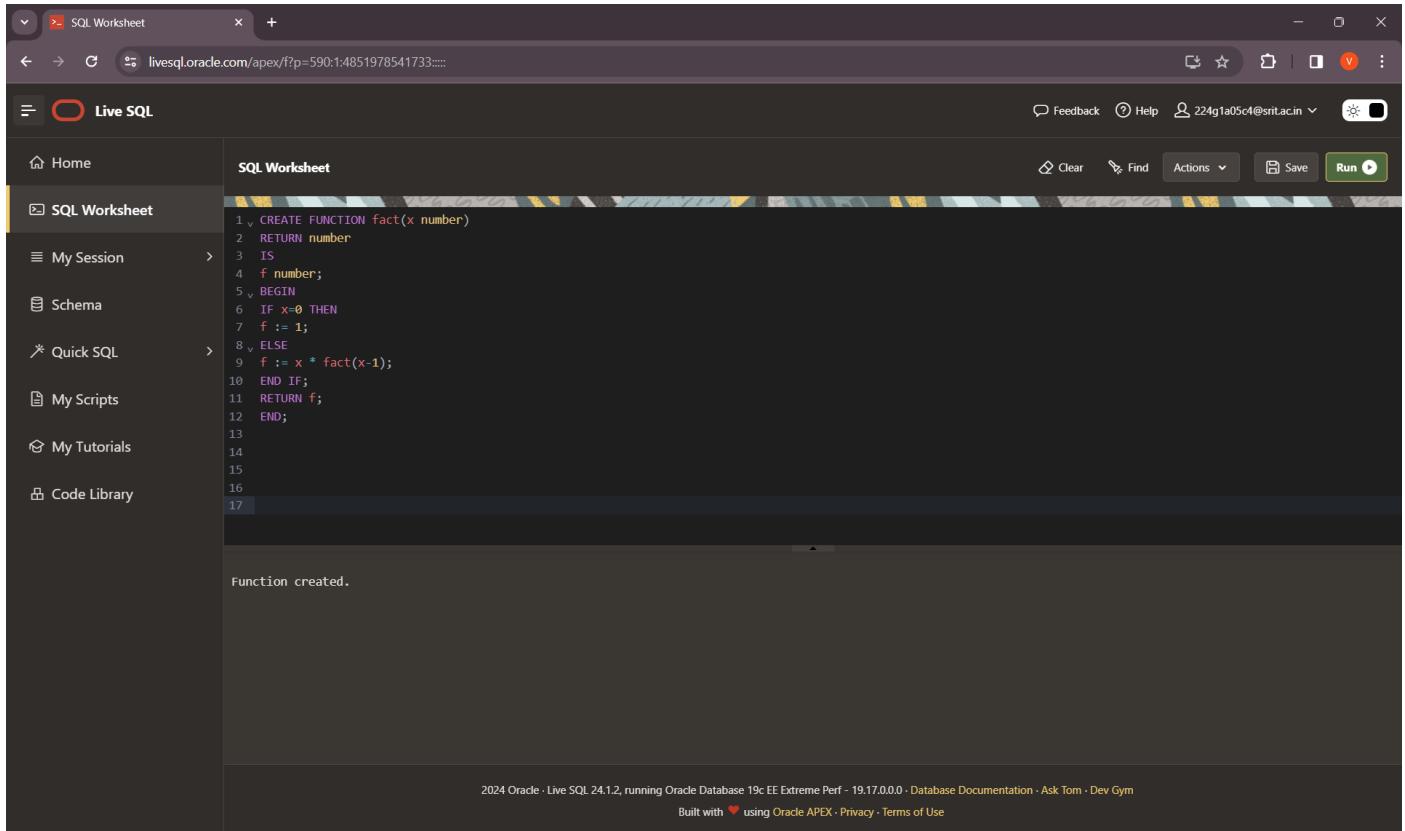
The output shows the statement was processed and a record was inserted successfully.

Statement processed.
RECORD INSERTED SUCCESSFULLY
1 RECORD IS INSERTED SUCCESSFULLY

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EXPERIMENT-14

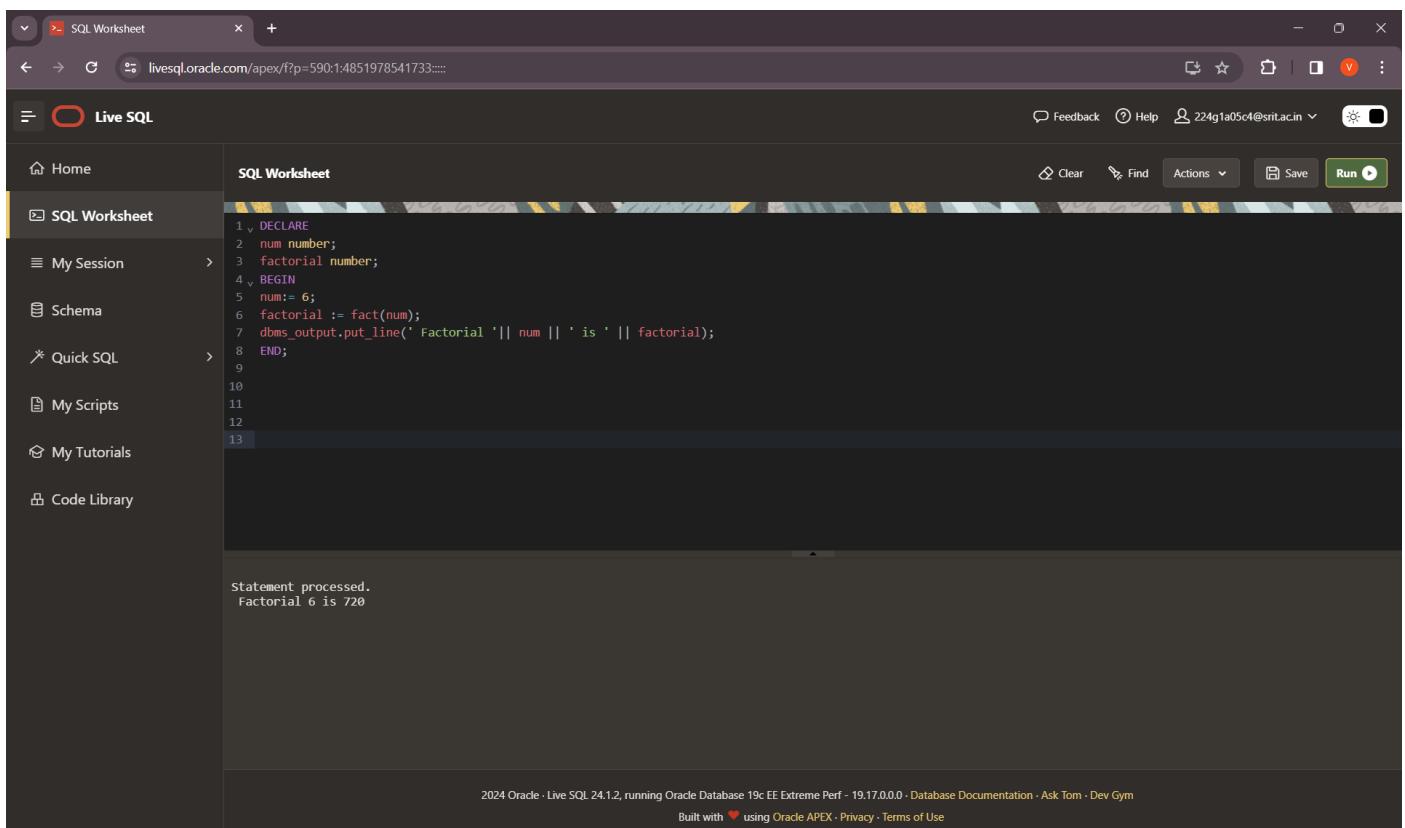
CREATION OF FUNCTION



The screenshot shows the Oracle Live SQL Worksheet interface. The left sidebar has sections for Home, SQL Worksheet, My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main area is titled "SQL Worksheet". The code entered is:

```
1 v CREATE FUNCTION fact(x number)
2 RETURN number
3 IS
4 f number;
5 v BEGIN
6 IF x=0 THEN
7 f := 1;
8 ELSE
9 f := x * fact(x-1);
10 END IF;
11 RETURN f;
12 END;
```

Below the code, the message "Function created." is displayed. At the bottom of the screen, a footer bar shows "2024 Oracle · Live SQL 24.1.2, 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 screenshot shows the Oracle Live SQL Worksheet interface. The left sidebar has sections for Home, SQL Worksheet, My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main area is titled "SQL Worksheet". The code entered is:

```
1 v DECLARE
2 num number;
3 factorial number;
4 v BEGIN
5 num:= 6;
6 factorial := fact(num);
7 dbms_output.put_line(' Factorial '|| num || ' is ' || factorial);
8 END;
```

Below the code, the message "Statement processed." is displayed, followed by "Factorial 6 is 720". At the bottom of the screen, a footer bar shows "2024 Oracle · Live SQL 24.1.2, 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".

DROP FUNCTION

```
1
2
3
4  DROP FUNCTION fact;
5
6
```

SQL Statement Output

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EXPERIMENT-15

Write PL/SQL program to implement Trigger on table.

Create table instructor

```
1 v CREATE TABLE INSTRUCTOR
2   (ID VARCHAR2(5),
3    NAME VARCHAR2(20) NOT NULL,
4    DEPT_NAME VARCHAR2(20),
5    SALARY NUMERIC(8,2) CHECK (SALARY > 29000)
6  );
7  insert into instructor values ('10101', 'Srinivasan', 'Comp. Sci.', '65000');
8  insert into instructor values ('12121', 'Wu', 'Finance', '90000');
9  insert into instructor values ('15151', 'Mozart', 'Music', '40000');
10 insert into instructor values ('22222', 'Einstein', 'Physics', '95000');
11 insert into instructor values ('32343', 'El Said', 'History', '60000');
12 insert into instructor values ('33456', 'Gold', 'Physics', '87000');
13 insert into instructor values ('45565', 'Katz', 'Comp. Sci.', '75000');

1 row(s) inserted.

Trigger created.
```

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INSERT VALUES INTO TABLE INSTRUCTOR:

Replace trigger:

The screenshot shows the Oracle Live SQL interface. On the left, the sidebar has sections like Home, SQL Worksheet (which is selected), My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main area is titled "SQL Worksheet". It contains the following PL/SQL code:

```
1 v CREATE OR REPLACE TRIGGER display_salary_changes
2 BEFORE UPDATE ON instructor
3 FOR EACH ROW
4 WHEN (NEW.ID = OLD.ID)
5 DECLARE
6 sal_diff number;
7 v BEGIN
8 sal_diff := :NEW.salary - :OLD.salary;
9 dbms_output.put_line('Old salary: ' || :OLD.salary);
10 dbms_output.put_line('New salary: ' || :NEW.salary);
11 dbms_output.put_line('Salary difference: ' || sal_diff);
12 END;
```

Below the code, the message "Trigger created." is displayed. At the bottom of the main window, it says "2024 Oracle · Live SQL 24.1.2, 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 screenshot shows the Oracle Live SQL interface. The sidebar and main area are identical to the first screenshot. The main area contains the following PL/SQL code:

```
1 v DECLARE
2 total_rows number(2);
3 v BEGIN
4 UPDATE instructor
5 SET salary = salary + 5000;
6 v IF sql%notfound THEN
7 dbms_output.put_line('no instructors updated');
8 ELSIF sql%found THEN
9 total_rows := sql%rowcount;
10 dbms_output.put_line( total_rows || ' instructors updated ');
11 END IF;
12 END;
```

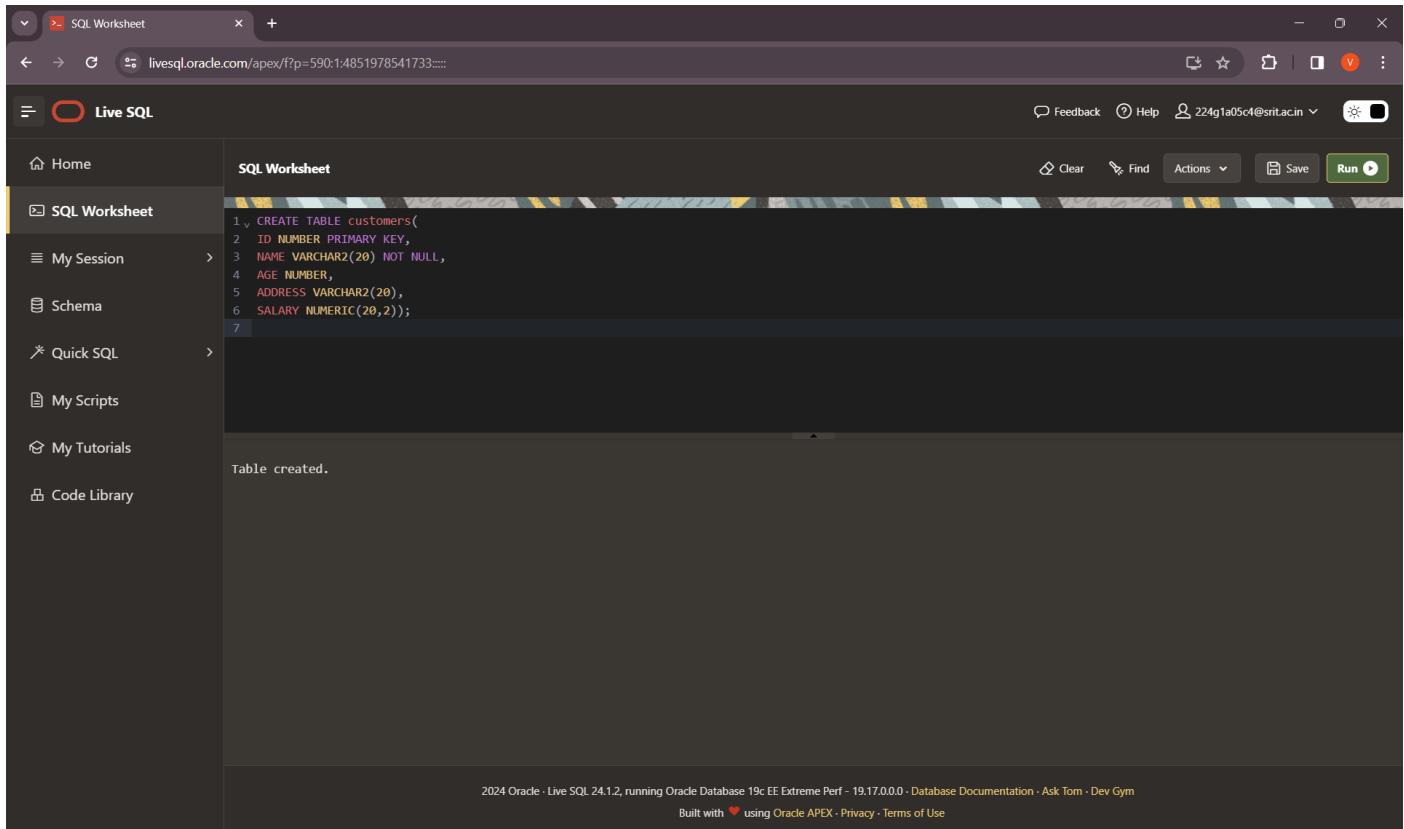
Below the code, the output shows the statement processed and a series of salary updates for various instructors. At the bottom of the main window, it says "2024 Oracle · Live SQL 24.1.2, running Oracle Database 19c EE Extreme Perf - 19.17.0.0.0 · Database Documentation · Ask Tom · Dev Gym" and "Built with ❤ using Oracle APEX · Privacy · Terms of Use".

Conclusion: PL/SQL program to implement Trigger on table is successfully executed.

EXPERIMENT-16

Write PL/SQL program to implement Cursor on table.

Create table customer:

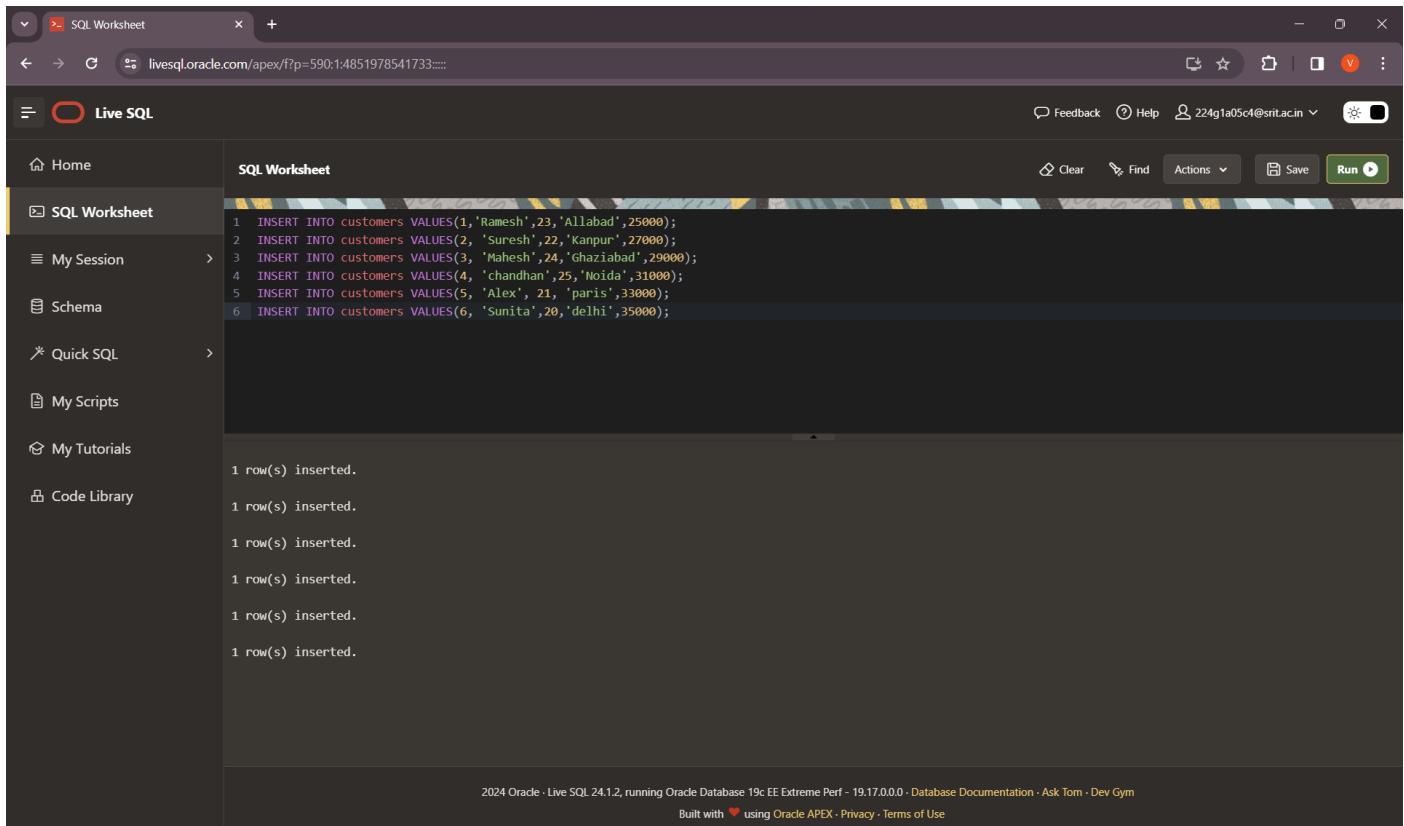


The screenshot shows the Oracle Live SQL interface. The left sidebar has 'SQL Worksheet' selected. The main area contains the following SQL code:

```
1 v CREATE TABLE customers(
2   ID NUMBER PRIMARY KEY,
3   NAME VARCHAR2(20) NOT NULL,
4   AGE NUMBER,
5   ADDRESS VARCHAR2(20),
6   SALARY NUMERIC(20,2));
7
```

Below the code, the message "Table created." is displayed. At the bottom of the interface, a footer bar includes the text "2024 Oracle · Live SQL 24.1.2, 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".

INSERTION



The screenshot shows the Oracle Live SQL interface. The left sidebar has 'SQL Worksheet' selected. The main area contains the following SQL code:

```
1 INSERT INTO customers VALUES(1,'Ramesh',23,'Allabad',25000);
2 INSERT INTO customers VALUES(2, 'Suresh',22,'Kanpur',27000);
3 INSERT INTO customers VALUES(3, 'Mahesh',24,'Ghaziabad',29000);
4 INSERT INTO customers VALUES(4, 'chandhan',25,'Noida',31000);
5 INSERT INTO customers VALUES(5, 'Alex', 21, 'paris',33000);
6 INSERT INTO customers VALUES(6, 'Sunita',20,'delhi',35000);
```

Below the code, six messages "1 row(s) inserted." are displayed sequentially. At the bottom of the interface, a footer bar includes the text "2024 Oracle · Live SQL 24.1.2, 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".

Declare Cursor:

The screenshot shows the Oracle Live SQL Worksheet interface. On the left, there's a sidebar with navigation links: Home, SQL Worksheet (which is selected), My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main area is titled "SQL Worksheet". It contains the following PL/SQL code:

```
1 v DECLARE
2   c_id customers.id%type;
3   c_name customers.name%type;
4   c_addr customers.address%type;
5 v CURSOR c_customers is
6   SELECT id, name, address FROM customers;
7 v BEGIN
8   OPEN c_customers;
9 v   LOOP
10    FETCH c_customers into c_id, c_name, c_addr;
11    EXIT WHEN c_customers%notfound;
12    dbms_output.put_line(c_id || ' ' || c_name || ' ' || c_addr);
13  END LOOP;
14  CLOSE c_customers;
15 END;
```

Below the code, the output is displayed:

```
Statement processed.
1 Ramesh Allahad
2 Suresh Kanpur
3 Mahesh Ghaziabad
4 chandhan Noida
5 Alex paris
6 Sunita delhi
```

At the bottom of the worksheet, there's a footer with copyright information: "2024 Oracle · Live SQL 24.1.2, 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".

CONCLUSION: PL/SQL program to implement Cursor on table is successfully executed.