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**SECD2523-01 PANGKALAN
DATA (DATABASE)
SQL 2 – DML 1 PART 2
SEMESTER 1 (2023/2024)**

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Section 6 Lesson 4 Exercise 2: Data Manipulation Language

Use DML operations to manage database tables (S6L4 Objective 2)

In this exercise you will populate and work with the data that is stored in the database system.

Part 1- Updating rows to the system.

- 1. Run the following query to view the content of the price_history table:

```
SELECT start_date, TO_CHAR (start_time, 'HH24:MI:SS'), price, end_date, TO_CHAR
(end_time, 'HH24:MI')
FROM price_history;
```

APEX

App Builder

SQL Workshop

Team Development

Gallery

Search

AMIRAH FAIAH

#utm123456

SQL Scripts

Results

Script: SPORTSDATA

Status: Complete

View: Detail Summary

Rows: 15

Go

Create App

Edit Script

Number	Elapsed	Statement	Feedback	Rows
46	0.00	INSERT INTO ordered_items (quantity_ordered, quantity_shippe	ORA-00001: unique constraint (WKSP_UTM123456.ORDERED_ITEM_PK) violated	-
47	0.01	INSERT INTO ordered_items (quantity_ordered, quantity_shippe	ORA-00001: unique constraint (WKSP_UTM123456.ORDERED_ITEM_PK) violated	-
48	0.00	INSERT INTO teams (id, name, number_of_players, discount) VA	ORA-00001: unique constraint (WKSP_UTM123456.TEAM_PK) violated	-
49	0.00	INSERT INTO customers (ctr_number, email, first_name, last_n	ORA-00001: unique constraint (WKSP_UTM123456.CUSTOMER_PK) violated	-
50	0.02	SELECT start_date, TO_CHAR (start_time, 'HH24:MI:SS'), price	7 rows selected.	7

Download

Previous

row(s) 46 - 50 of 50

50

Statements Processed

1

Successful

49

With Errors

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Oracle APEX 23.2.0-20

APEX

App Builder

SQL Workshop

Team Development

Gallery

Search

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SQL Commands

Schema WKSP_UTM123456

Language SQL

Rows 10

Clear Command

Find Tables

Save

Run

1 SELECT start_date, TO_CHAR (start_time, 'HH24:MI:SS'), price, end_date, TO_CHAR

2 (end_time, 'HH24:MI')

3 FROM PRICE_HISTORY;

4

Results

Explain

Describe

Saved SQL

History

START_DATE	TO_CHAR(START_TIME,'HH24:MI:SS')	PRICE	END_DATE	TO_CHAR(END_TIME,'HH24:MI')
06/17/2017	09:00:00	4.99	-	-
11/25/2016	09:00:00	14.99	01/25/2017	17:00
01/25/2017	17:01:00	8.99	01/25/2017	19:00
01/26/2017	09:00:00	15.99	-	-
02/12/2017	12:30:00	7.99	-	-
04/25/2017	10:10:10	24.99	-	-
05/31/2017	16:35:30	149	-	-

7 rows returned in 0.01 seconds

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Oracle APEX 23.2.0-20

2. Obl is going to update the price of the premium bat so you will need to write a query that will close off the current price by adding the system date values to the end_date and end_time fields. To run this query you will need to both match the item number and identify that the end date is null. This ensures that you are updating the latest price.

The screenshot shows the APEX SQL Workshop interface. The SQL Commands tab is active, displaying the following query:

```
1 UPDATE price_history
2 SET end_date = CURRENT_DATE, end_time = CURRENT_TIMESTAMP
3 WHERE itm_number = 'im01101048' AND end_date is NULL;
4
5
```

The Results tab shows the execution outcome:

```
1 row(s) updated.
0.01 seconds
```

The interface includes a top navigation bar with 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'Gallery'. A search bar and user profile 'AMIRAH FAIQA #utm123456' are also visible. The bottom status bar shows the email 'faiah0804@gmail.com', workspace '#utm123456', and copyright information.

The screenshot shows the APEX Object Browser interface. The 'PRICE_HISTORY' table is selected, and the 'Data' tab is active. The table data is displayed as follows:

START_DATE	START_TIME	PRICE	END_DATE	END_TIME	ITM_NUMBER
06/17/2017	06/17/2016	4.99			im01101044
11/25/2016	11/25/2016	14.99	01/25/2017	01/25/2017	im01101045
01/25/2017	01/25/2017	8.99	01/25/2017	01/25/2017	im01101045
01/26/2017	01/26/2017	15.99			im01101045
02/12/2017	02/12/2017	7.99			im01101046
04/25/2017	04/25/2017	24.99			im01101047
05/31/2017	05/31/2017	149	11/10/2023	11/10/2023	im01101048

The interface includes a top navigation bar with 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'Gallery'. A search bar and user profile 'AMIRAH FAIQA #utm123456' are also visible. The bottom status bar shows the email 'faiah0804@gmail.com', workspace '#utm123456', and copyright information.

3. Rerun the select statement on the price_history table to ensure that the statement has been executed.

The screenshot shows the APEX SQL Workshop interface. The SQL Commands tab is active, displaying a SELECT statement: `SELECT * FROM price_history;`. The Results tab is also active, showing a table with 7 rows of data. The table has columns: START_DATE, START_TIME, PRICE, END_DATE, END_TIME, and ITM_NUMBER. The data is as follows:

START_DATE	START_TIME	PRICE	END_DATE	END_TIME	ITM_NUMBER
06/17/2017	06/17/2016	4.99	-	-	im01101044
11/25/2016	11/25/2016	14.99	01/25/2017	01/25/2017	im01101045
01/25/2017	01/25/2017	8.99	01/25/2017	01/25/2017	im01101045
01/26/2017	01/26/2017	15.99	-	-	im01101045
02/12/2017	02/12/2017	7.99	-	-	im01101046
04/25/2017	04/25/2017	24.99	-	-	im01101047
05/31/2017	05/31/2017	149	11/10/2023	11/10/2023	im01101048

7 rows returned in 0.01 seconds. Download

4. Insert a new row that will use the current date and time to set the new price of the premium bat to be 99.99.

The screenshot shows the APEX SQL Workshop interface. The SQL Commands tab is active, displaying an INSERT statement: `INSERT INTO price_history(itm_number, price, start_date, start_time) VALUES('im01101048', 99.99, CURRENT_DATE, CURRENT_TIMESTAMP);`. The Results tab is also active, showing the message: `1 row(s) inserted.` and `0.01 seconds`.

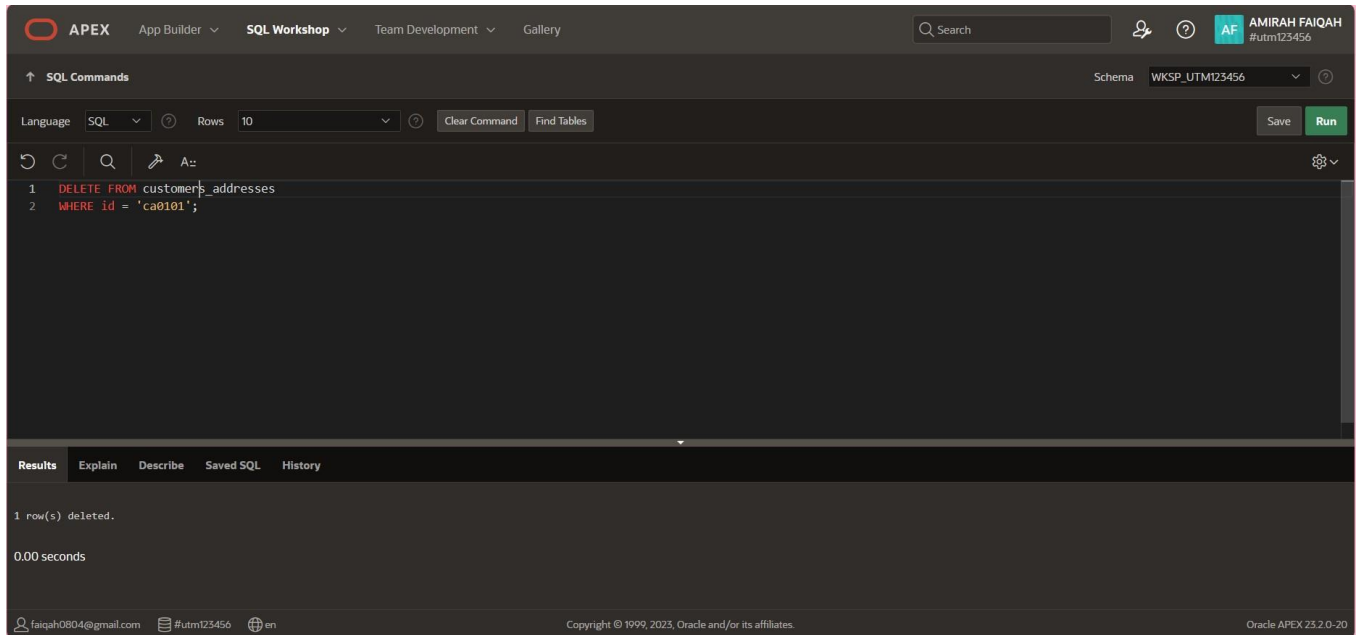
5. Rerun the select statement on the price_history table to ensure that the statement has been executed.

The screenshot displays the Oracle APEX SQL Workshop interface. At the top, the navigation bar includes 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'Gallery'. A search bar and user profile 'AMIRAH FAIQA #utml23456' are on the right. Below the navigation bar, the 'SQL Commands' section shows a query: `SELECT * FROM price_history;`. The 'Results' tab is active, displaying a table with 8 rows. The table columns are START_DATE, START_TIME, PRICE, END_DATE, END_TIME, and ITM_NUMBER. The data shows price history for item 'im01101044' and 'im01101045' from 2016 to 2023. The status bar at the bottom indicates '8 rows returned in 0.01 seconds' and includes a 'Download' link. The footer contains contact information, copyright notice, and version 'Oracle APEX 23.2.0-20'.

START_DATE	START_TIME	PRICE	END_DATE	END_TIME	ITM_NUMBER
06/17/2017	06/17/2016	4.99	-	-	im01101044
11/25/2016	11/25/2016	14.99	01/25/2017	01/25/2017	im01101045
01/25/2017	01/25/2017	8.99	01/25/2017	01/25/2017	im01101045
01/26/2017	01/26/2017	15.99	-	-	im01101045
02/12/2017	02/12/2017	7.99	-	-	im01101046
04/25/2017	04/25/2017	24.99	-	-	im01101047
05/31/2017	05/31/2017	149	11/10/2023	11/10/2023	im01101048
11/10/2023	11/10/2023	99.99	-	-	im01101048

Part 2: Deleting rows from the system

1. Bob Thornberry has contacted Obl to ask that the 83 Barrhill Drive address be removed from the system as he can no longer receive parcels at this address. Write a SQL statement that will remove this address from the system.



The screenshot shows the APEX SQL Workshop interface. The SQL Commands tab is active, displaying a DELETE statement: `DELETE FROM customers_addresses WHERE id = 'ca0101';`. The Results tab shows the execution outcome: "1 row(s) deleted." and "0.00 seconds". The schema is set to WKSP_UTM123456.

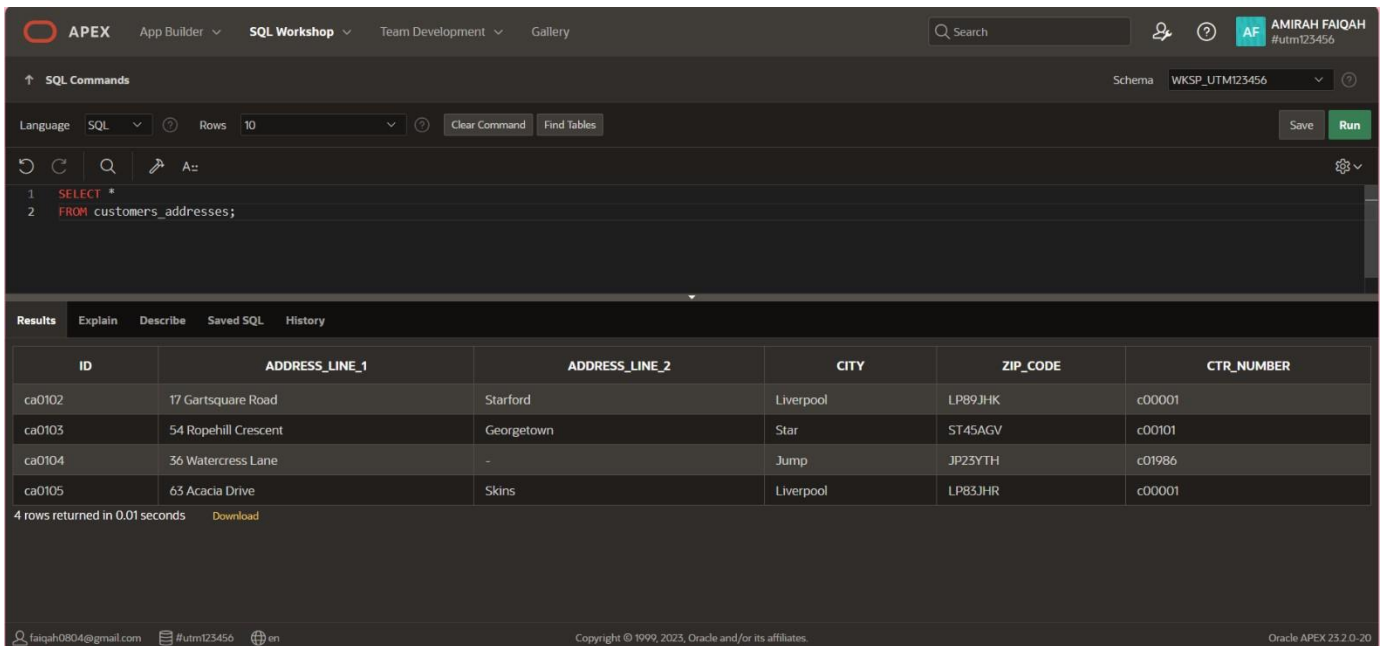
```
1 DELETE FROM customers_addresses
2 WHERE id = 'ca0101';
```

Results

1 row(s) deleted.

0.00 seconds

2. Run a select statement on the customers_addresses table to ensure that the statement has been executed.



The screenshot shows the APEX SQL Workshop interface. The SQL Commands tab is active, displaying a SELECT statement: `SELECT * FROM customers_addresses;`. The Results tab shows the execution outcome: "4 rows returned in 0.01 seconds". Below the text is a table with 6 columns: ID, ADDRESS_LINE_1, ADDRESS_LINE_2, CITY, ZIP_CODE, and CTR_NUMBER. The schema is set to WKSP_UTM123456.

```
1 SELECT *
2 FROM customers_addresses;
```

Results

ID	ADDRESS_LINE_1	ADDRESS_LINE_2	CITY	ZIP_CODE	CTR_NUMBER
ca0102	17 Gartsquare Road	Starford	Liverpool	LP89JHK	c00001
ca0103	54 Ropehill Crescent	Georgetown	Star	ST45AGV	c00101
ca0104	36 Watercress Lane	-	Jump	JP23YTH	c01986
ca0105	63 Acacia Drive	Skins	Liverpool	LP83JHR	c00001

4 rows returned in 0.01 seconds