



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

**SECD2523
DATABASE**

SECTION 10

SQL LAB 2 - DML 1 PART 1

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Section 6 Lesson 4 Exercise 1: Data Manipulation Language

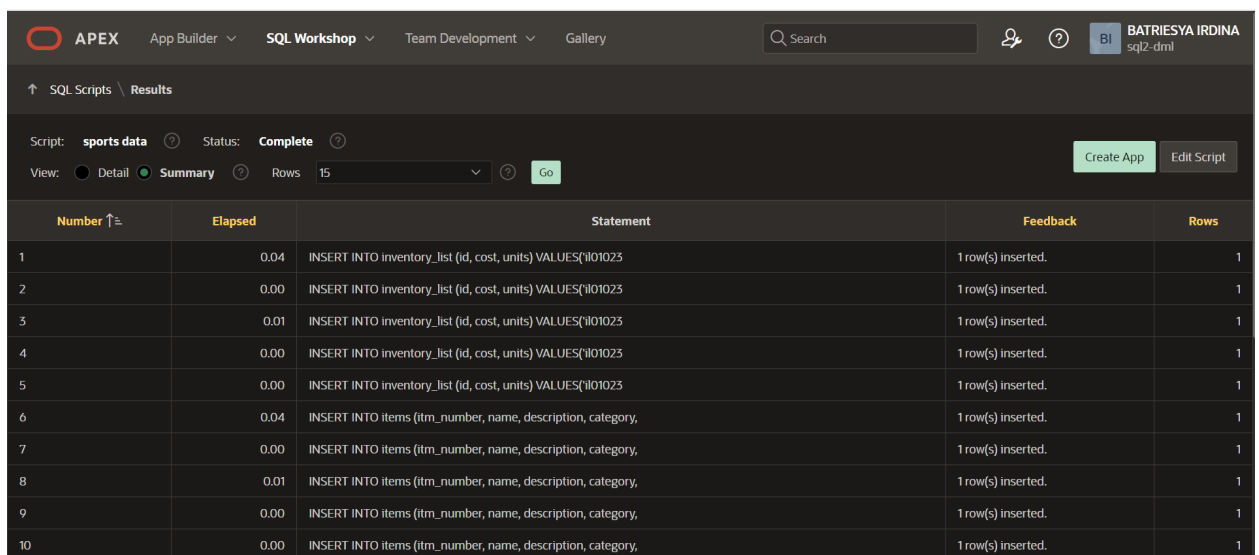
Use DML operations to manage database tables (S6L4 Objective 2)

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




Part 1: Running a Script to Populate the Tables

You have to consider the orders of the tables when populating them. A table that has a foreign key cannot be populated before the related table with the primary key.

1. Use the table mapping document and list the order that you would use to populate the tables.
2. Open the “sports data.sql” and look at the order the data is being added there, does your list match? This file can be found in the Section 6 Lesson 4 Interaction (sports data.zip) and must first be extracted.
3. Run the “sports data.sql” script in APEX to populate your tables.
4. Check that there are no errors when you run the script.



Number ↑	Elapsed	Statement	Feedback	Rows
1	0.04	INSERT INTO inventory_list (id, cost, units) VALUES('il01023	1 row(s) inserted.	1
2	0.00	INSERT INTO inventory_list (id, cost, units) VALUES('il01023	1 row(s) inserted.	1
3	0.01	INSERT INTO inventory_list (id, cost, units) VALUES('il01023	1 row(s) inserted.	1
4	0.00	INSERT INTO inventory_list (id, cost, units) VALUES('il01023	1 row(s) inserted.	1
5	0.00	INSERT INTO inventory_list (id, cost, units) VALUES('il01023	1 row(s) inserted.	1
6	0.04	INSERT INTO items (itm_number, name, description, category,	1 row(s) inserted.	1
7	0.00	INSERT INTO items (itm_number, name, description, category,	1 row(s) inserted.	1
8	0.01	INSERT INTO items (itm_number, name, description, category,	1 row(s) inserted.	1
9	0.00	INSERT INTO items (itm_number, name, description, category,	1 row(s) inserted.	1
10	0.00	INSERT INTO items (itm_number, name, description, category,	1 row(s) inserted.	1

5	0.00	INSERT INTO inventory_list (id, cost, units) VALUES(101023	1 row(s) inserted.	1
6	0.04	INSERT INTO items (itm_number, name, description, category,	1 row(s) inserted.	1
7	0.00	INSERT INTO items (itm_number, name, description, category,	1 row(s) inserted.	1
8	0.01	INSERT INTO items (itm_number, name, description, category,	1 row(s) inserted.	1
9	0.00	INSERT INTO items (itm_number, name, description, category,	1 row(s) inserted.	1
10	0.00	INSERT INTO items (itm_number, name, description, category,	1 row(s) inserted.	1
11	0.02	INSERT INTO price_history (start_date, start_time, price, it	1 row(s) inserted.	1
12	0.00	INSERT INTO price_history (start_date, start_time, price, en	1 row(s) inserted.	1
13	0.01	INSERT INTO price_history (start_date, start_time, price, en	1 row(s) inserted.	1
14	0.00	INSERT INTO price_history (start_date, start_time, price, it	1 row(s) inserted.	1
15	0.00	INSERT INTO price_history (start_date, start_time, price, it	1 row(s) inserted.	1
Download				
				row(s) 1 - 15 of 47 Next ▶
47		47	0	
Statements Processed		Successful	With Errors	
<div><div> batriesyairdina@graduate.utm.my</div><div> sqlZ-dml</div><div> en</div></div> <div>Copyright © 1999, 2023, Oracle and/or its affiliates.</div> <div>Oracle APEX 23.2.1</div>				

Part 2: Inserting Rows to the System

1. Add a new team to the system

id	name	Number_of_players	discount
t004	Jets	10	5

- **INSERT INTO teams (id, name, number_of_players, discount)
VALUES('t004', 'Jets', 10, 5);**

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 'BATRIESYA IRDINA' are also visible. The main panel is titled 'SQL Commands' and shows the 'Schema' as 'WKSP_SQL2DML'. The 'Language' is set to 'SQL' and 'Rows' to '10'. The SQL command entered is:

```
1 INSERT INTO teams (id, name, number_of_players, discount)
2 VALUES('t004', 'Jets', 10, 5);
```

Below the command editor, the 'Results' tab is active, showing the output: '1 row(s) inserted.' and '0.01 seconds'. The footer contains the user email 'batriesyairdina@graduate.utm.my', the file name 'sql2-dml', and the copyright notice 'Copyright © 1999, 2023, Oracle and/or its affiliates. Oracle APEX 23.21'.

2. Add a new Customer with the following details to the system

ctr number	email	First name	Last name	Phone number	Current balance	Loyalty card number	tem id	sre id
c02001	brianrog@hoo te.com	Brian	Rogers	016545 64898	-5	Ic4587		

- **INSERT INTO customers (ctr_number, email, first_name, last_name, phone_number, current_balance, loyalty_card_number, tem_id, sre_id) VALUES ('c02001', 'brianrog@hoootech.com', 'Brian', 'Rogers', '01654564898', -5, 'Ic4587', null, null);**

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 'BATRIESYA IRDINA' are also visible. The main panel is titled 'SQL Commands' and shows a schema dropdown set to 'WKSP_SQL2DML'. Below this, the 'Language' is set to 'SQL' and 'Rows' to '10'. The SQL command area contains the following code:

```
1 INSERT INTO customers (ctr_number, email, first_name, last_name, phone_number, current_balance, loyalty_card_number, tem_id, sre_id)
2 VALUES('c02001', 'brianrog@hoootech.com', 'Brian', 'Rogers', '01654564898', -5, 'Ic4587', null, null);
```

Below the command area, the 'Results' tab is active, showing the output: '1 row(s) inserted.' and '0.01 seconds'. The bottom status bar shows the user 'batriesyairdina@graduate.utm.my', the file 'sql2-dml', and the version 'Oracle APEX 23.2.1'.

3. This information violates the check constraint that the current balance must not be less than zero. Change the current balance to 50 and rerun the query.

- **UPDATE customers**
SET current_balance = 50;

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 'BATRIESYA IRDINA' are also present. The main area is titled 'SQL Commands' and shows a schema dropdown set to 'WKSP_SQL2DML'. Below this, the 'Language' is set to 'SQL' and 'Rows' to '10'. The SQL command editor contains two lines: '1 UPDATE customers' and '2 SET current_balance = 50;'. The 'Run' button is highlighted in green. Below the editor, the 'Results' tab is active, showing the message '6 row(s) updated.' and a execution time of '0.03 seconds'. The footer includes the user email 'batriesyairdina@graduate.utm.my', file type 'sql2-dml', language 'en', copyright notice 'Copyright © 1999, 2023, Oracle and/or its affiliates.', and version 'Oracle APEX 23.2.1'.

↑ SQL Commands Schema WKSP_SQL2DML

Language SQL Rows 10 Clear Command Find Tables Save Run

```
1 UPDATE customers
2 SET current_balance = 50;
```

Results Explain Describe Saved SQL History

6 row(s) updated.

0.03 seconds

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