



**UTM**  
UNIVERSITI TEKNOLOGI MALAYSIA

**SCHOOL OF COMPUTING**  
**SESSION 2023/2024, SEMESTER 3**  
**SECD2523 - DATABASE**  
**SECTION 10**

**SQL LAB 2 - DML1 PART1**

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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 tables.

### Part 1 : Running a script to populate the tables.

You have to consider the order of the tables when populating them. A table that has a foreign key field 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 no errors occurred when you ran the script.

SQL Scripts | Results

Script: **sports data** Status: **Complete**

View: **Detail** Summary Rows: 15 **Go** **Create App** **Edit Script**

Number	Elapsed	Statement	Feedback	Rows
1	0.06	INSERT INTO inventory_list (id, cost, units) VALUES('101023	1 row(s) inserted.	1
2	0.01	INSERT INTO inventory_list (id, cost, units) VALUES('101023	1 row(s) inserted.	1
3	0.00	INSERT INTO inventory_list (id, cost, units) VALUES('101023	1 row(s) inserted.	1
4	0.00	INSERT INTO inventory_list (id, cost, units) VALUES('101023	1 row(s) inserted.	1
5	0.01	INSERT INTO inventory_list (id, cost, units) VALUES('101023	1 row(s) inserted.	1
6	0.02	INSERT INTO items (itm_number, name, description, category,	1 row(s) inserted.	1
7	0.01	INSERT INTO items (itm_number, name, description, category,	1 row(s) inserted.	1
8	0.00	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	0.03	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

Statements Processed

47

Successful

0

With Errors

nurul.izzah.rashid@graduate.utm.my

sql2\_dml1 en

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Oracle APEX 23.21

## 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

The screenshot shows 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 'Izzah Rashid' are also present. The main area is titled 'SQL Commands' and shows a schema of 'WKSP\_SQL2DML1'. Below this, there are controls for 'Language' (set to SQL), 'Rows' (set to 10), and buttons for 'Clear Command' and 'Find Tables'. The SQL command editor contains the following code:

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

Below the editor, the 'Results' tab is active, displaying the message '1 row(s) inserted.' and the execution time '0.03 seconds'. The footer of the interface shows the user 'nurul.izzah.rashid@graduate.utm.my', the schema 'sql2\_dml1', and the version 'Oracle APEX 23.2.1'.

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	team id	sre id
c02001	brianrog@hoo tech.com	Brian	Rogers	01654564898	-5	Ic4587		

APEX

App Builder

SQL Workshop

Team Development

Gallery

Search

IR

Izzah Rashid

sql2\_dml1

SQL Commands

SchemaWKSP\_SQL2DML1

LanguageSQL

Rows10

Clear Command

Find Tables

Save

Run

Az

```
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@hoo tech.com', 'Brian', 'Rogers', '01654564898', -5, 'Ic4587', null,null);
```

Results

Explain

Describe

Saved SQL

History

1 row(s) inserted.

0.04 seconds

nurulizzah.rashid@graduate.utm.my

sql2\_dml1

en

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Oracle APEX 23.21

- 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.

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 'Izzah Rashid' are also visible. The main area is titled 'SQL Commands' and shows a schema of 'WKSP\_SQL2DML1'. The SQL editor contains the following commands:

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

Below the editor, the 'Results' tab is active, showing the output of the query: '6 row(s) updated.' and '0.01 seconds'. The footer includes the user's email 'nurulizzah.rashid@graduate.utm.my', the schema 'sql2\_dml1', and the Oracle APEX version '23.2.1'.