



**UTM**  
UNIVERSITI TEKNOLOGI MALAYSIA

**SCHOOL OF COMPUTING**  
Faculty of Engineering

**SECD 2523 – DATABASE**  
**SEMESTER I 2023/2024**

**SECTION: 05**

**ORACLE SQL2-DML1 PART 2 (DFo\_6\_4\_1\_  
Project)**

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## Database Design Project

### Oracle Baseball League Store Database

#### Project Scenario:

You are a small consulting company specializing in database development. You have just been awarded the contract to develop a data model for a database application system for a small retail store called Oracle Baseball League (OBL).

The Oracle Baseball League store serves the entire surrounding community selling baseball kit. The OBL has two types of customer, there are individuals who purchase items like balls, cleats, gloves, shirts, screen printed t-shirts, and shorts. Additionally customers can represent a team when they purchase uniforms and equipment on behalf of the team.

Teams and individual customers are free to purchase any item from the inventory list, but teams get a discount on the list price depending on the number of players. When a customer places an order we record the order items for that order in our database.

OBL has a team of three sales representatives that officially only call on teams but have been known to handle individual customer complaints.

# 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.

The suggested order for populating tables, considering foreign key relationships, is as follows:

inventory\_list  
Item  
price\_history  
sales\_representatives  
sales\_representatives\_addresses  
teams  
customers  
customer\_addresses  
orders  
ordered\_items

- 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.

Yes, it does

- 3. Run the “sports data.sql” script in APEX to populate your tables

Number	Elapsed	Statement	Feedback	Rows
1	0.01	INSERT INTO inventory_list (id, cost, units) VALUES('W01023	1 row(s) inserted.	1
2	0.00	INSERT INTO inventory_list (id, cost, units) VALUES('W01023	1 row(s) inserted.	1
3	0.01	INSERT INTO inventory_list (id, cost, units) VALUES('W01023	1 row(s) inserted.	1
4	0.00	INSERT INTO inventory_list (id, cost, units) VALUES('W01023	1 row(s) inserted.	1
5	0.00	INSERT INTO inventory_list (id, cost, units) VALUES('W01023	1 row(s) inserted.	1
6	0.01	INSERT INTO items (item_number, name, description, category,	1 row(s) inserted.	1
7	0.00	INSERT INTO items (item_number, name, description, category,	1 row(s) inserted.	1
8	0.00	INSERT INTO items (item_number, name, description, category,	1 row(s) inserted.	1
9	0.00	INSERT INTO items (item_number, name, description, category,	1 row(s) inserted.	1
10	0.00	INSERT INTO items (item_number, name, description, category,	1 row(s) inserted.	1
11	0.01	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	0.00	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

4. Check that no errors occurred when you ran the script.

47	47	0
Statements Processed	Successful	With Errors

## 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

### ANSWER:

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

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@hooch.com	Brian	Rogers	01654564898	-5	lc4587		

### ANSWER:

```
INSERT INTO customers (ctr_number, email, first_name, last_name, phone_number, current_balance, loyalty_card_number, tem_id, sre_id)
VALUES ('c02001', 'brianrog@hooch.com', 'Brian', 'Rogers', '01654564898', 50, 'lc4587', null, null);
```

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.

### ANSWER:

```
UPDATE customers
SET current_balance = 50
WHERE ctr_number = 'c02001';
```