



# UTM

UNIVERSITI TEKNOLOGI MALAYSIA

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**SECD2523 - DATABASE**

DR HASLINA BINTI HASHIM

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**SQL2 – DML1**

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**PREPARED BY: TEAM HAPPY**

NO.	NAME	MATRIC NO.
1.	JANE NG JING YING	A22EC0170
2.	ONG JIA YU	A22EC0258
3.	ONG SHUN SHENG	A22EC0259
4.	TOO JUN XUN	A22EC0288

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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 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;
```

The screenshot shows the APEX SQL Workshop interface. The top navigation bar includes 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'Gallery'. A search bar and user profile 'JUN XUN' are on the right. The 'SQL Commands' section shows a query with 10 rows. The 'Results' tab is active, displaying a table with 7 rows of data.

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 [Download](#)

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.

APEX SQL Workshop interface showing an SQL command execution.

Schema: WKSP\_JUNXUN

Language: SQL Rows: 10

SQL Command:

```
1 UPDATE price_history
2 SET end_date = current_date , end_time = CURRENT_TIMESTAMP
3 where itm_number = 'im01101048' AND end_date IS NULL;
```

Results: 1 row(s) updated. 0.01 seconds

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3. Rerun the select statement on the price\_history table to ensure that the statement has been executed.

APEX SQL Workshop interface showing the results of a SELECT statement.

Schema: WKSP\_JUNXUN

Language: SQL Rows: 10

SQL Command:

```
1 select * from price_history
2
```

Results:

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	11/08/2023	11/08/2023	im01101048

7 rows returned in 0.01 seconds

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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 Oracle APEX SQL Workshop interface. The 'SQL Commands' tab is active, displaying the following SQL statement:

```
1 INSERT INTO price_history (itm_number, start_date, start_time, price)
2 VALUES ('im01101048', CURRENT_DATE, CURRENT_TIMESTAMP, 99.99);
3
```

The 'Results' tab is selected, showing the execution output:

```
1 row(s) inserted.
0.00 seconds
```

The interface includes a top navigation bar with 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'Gallery'. A search bar and user profile 'JUN XUN' are also visible. The bottom status bar shows the user 'jamestoo51@gmail.com', the schema 'WKSP\_JUNXUN', and the version 'Oracle APEX 23.2.0-17'.

5. Rerun the select statement on the price\_history table to ensure that the statement has been executed.

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

```
1 select * from price_history
2
```

The 'Results' tab is selected, showing the execution output as a table:

START_DATE	START_TIME	PRICE	END_DATE	END_TIME	ITM_NUMBER
11/08/2023	11/08/2023	99.99	-	-	im01101048
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

The interface includes a top navigation bar with 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'Gallery'. A search bar and user profile 'JUN XUN' are also visible. The bottom status bar shows the user 'jamestoo51@gmail.com', the schema 'WKSP\_JUNXUN', and the version 'Oracle APEX 23.2.0-17'.

## 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.

```
DELETE FROM customers_addresses
WHERE ADDRESS_LINE_1 = '83 Barrhill Drive';
```

Script Output x Query Result x

Task completed in 0.38 seconds

12-FEB-17	12-FEB-17	7.99		im01101046
25-APR-17	25-APR-17	24.99		im01101047
31-MAY-17	31-MAY-17	149	10-NOV-23 10-NOV-23	im01101048
10-NOV-23	10-NOV-23	99.99	10-NOV-23 10-NOV-23	im01101048
10-NOV-23	10-NOV-23	99.99	10-NOV-23 10-NOV-23	im01101048

9 rows selected.

1 row inserted.

1 row deleted.

2. Run a select statement on the customers\_addresses table to ensure that the statement has been executed.

```
select * from customers_addresses;
```

Script Output x Query Result x

SQL | All Rows Fetched: 4 in 0.068 seconds

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