

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

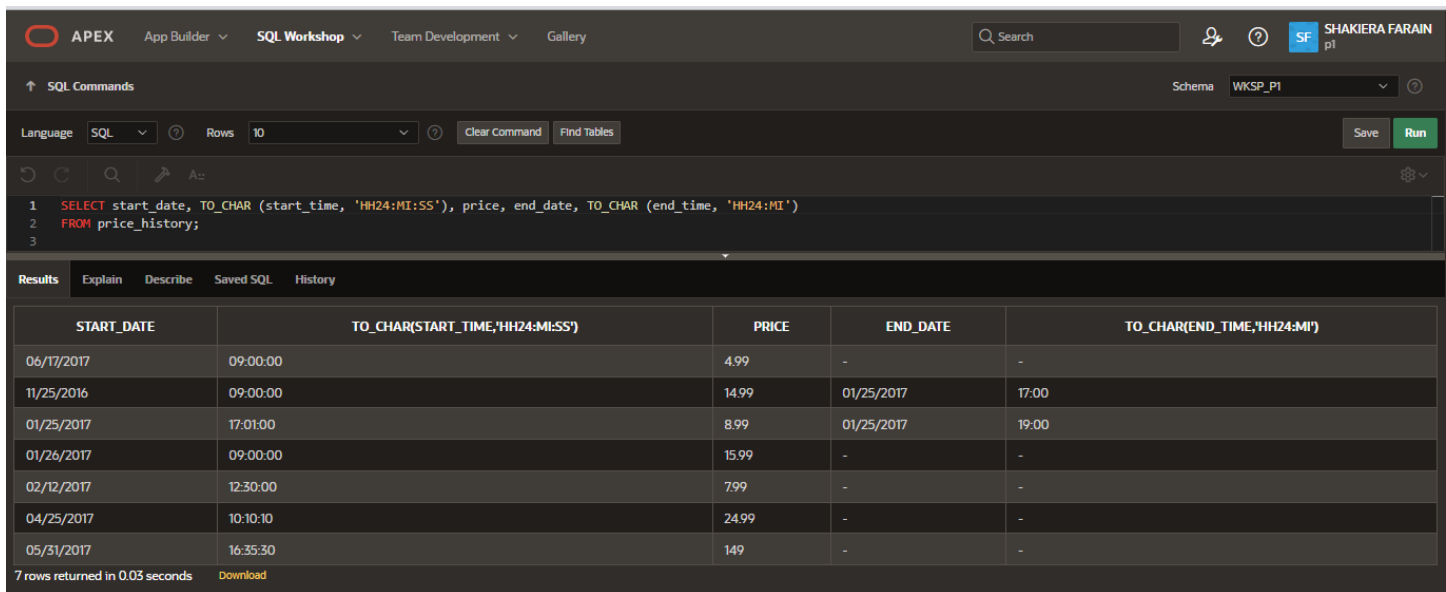
Use DML operations to manage database tables (S6L4 Objective 2)

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;
```

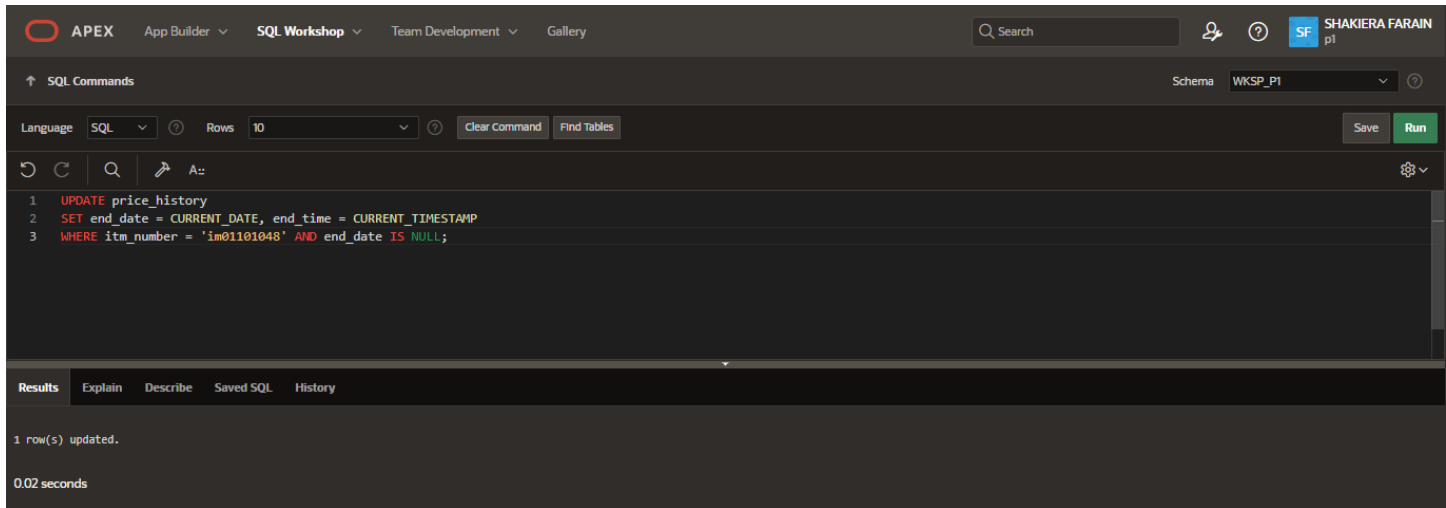


The screenshot shows the APEX SQL Workshop interface. At the top, there are tabs for 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'Gallery'. A search bar and user information 'SHAKIERA FARAIN p1' are on the right. Below the tabs, the 'SQL Commands' section is active, showing a query in the editor. The query is:
1 SELECT start_date, TO_CHAR (start_time, 'HH24:MI:SS'), price, end_date, TO_CHAR (end_time, 'HH24:MI')
2 FROM price_history;
3
Below the editor, the 'Results' tab is selected, displaying a table with 7 rows. The table has 5 columns: START_DATE, TO_CHAR(START_TIME,'HH24:MI:SS'), PRICE, END_DATE, and TO_CHAR(END_TIME,'HH24:MI'). The data is as follows:

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	-	-

At the bottom of the results table, it says '7 rows returned in 0.03 seconds' and there is a 'Download' button.

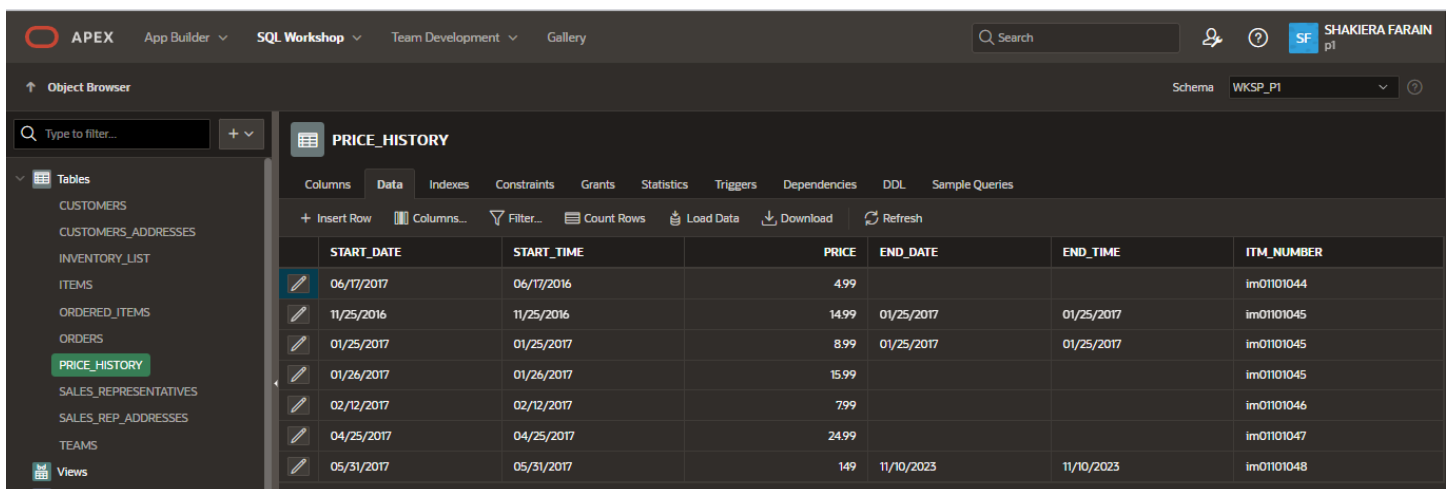
2. Obl is going to update the price of the premium bat so you will need to write a query that will close off the current price by adding the system date values to the end_date and end_time fields. To run this query you will need to both match the item number and identify that the end date is null. This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



The screenshot shows the APEX SQL Workshop interface. The top navigation bar includes 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'Gallery'. A search bar and user profile 'SHAKIERA FARAIN p1' are on the right. The 'SQL Commands' tab is active, showing a query with 10 rows. The query is:

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

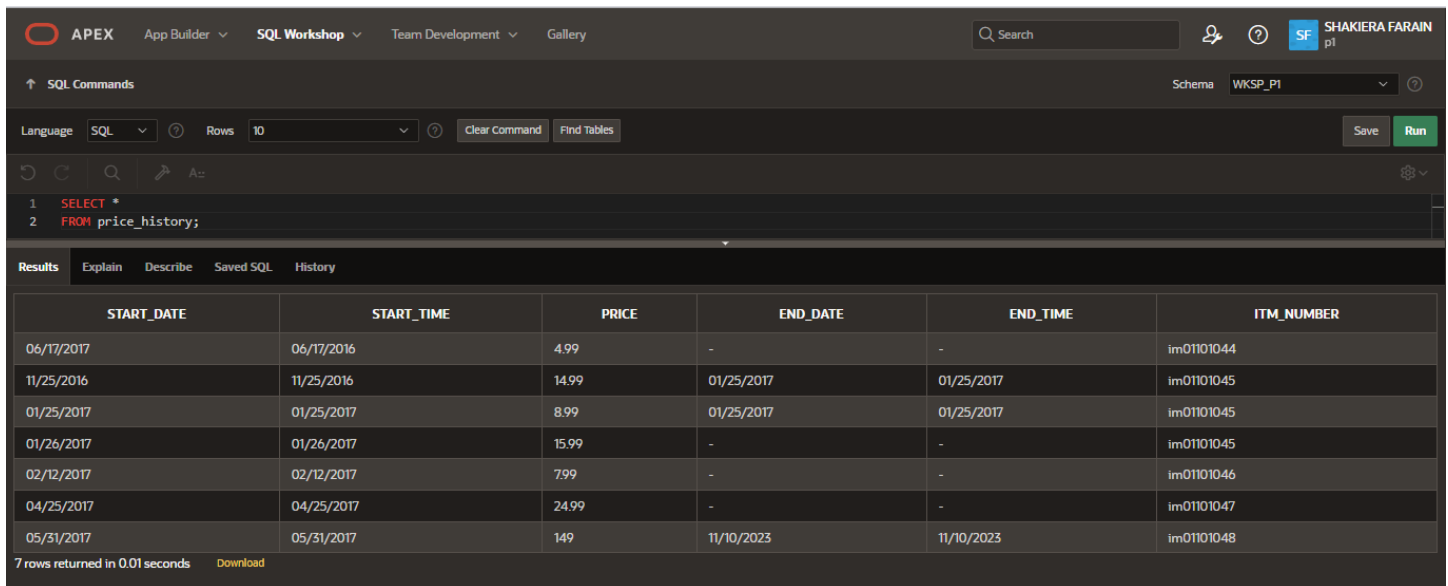
The 'Results' tab shows '1 row(s) updated.' and '0.02 seconds'.



The screenshot shows the APEX SQL Workshop interface with the 'Object Browser' tab active. The 'PRICE_HISTORY' table is selected, and the 'Data' tab is active. The table has 7 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

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

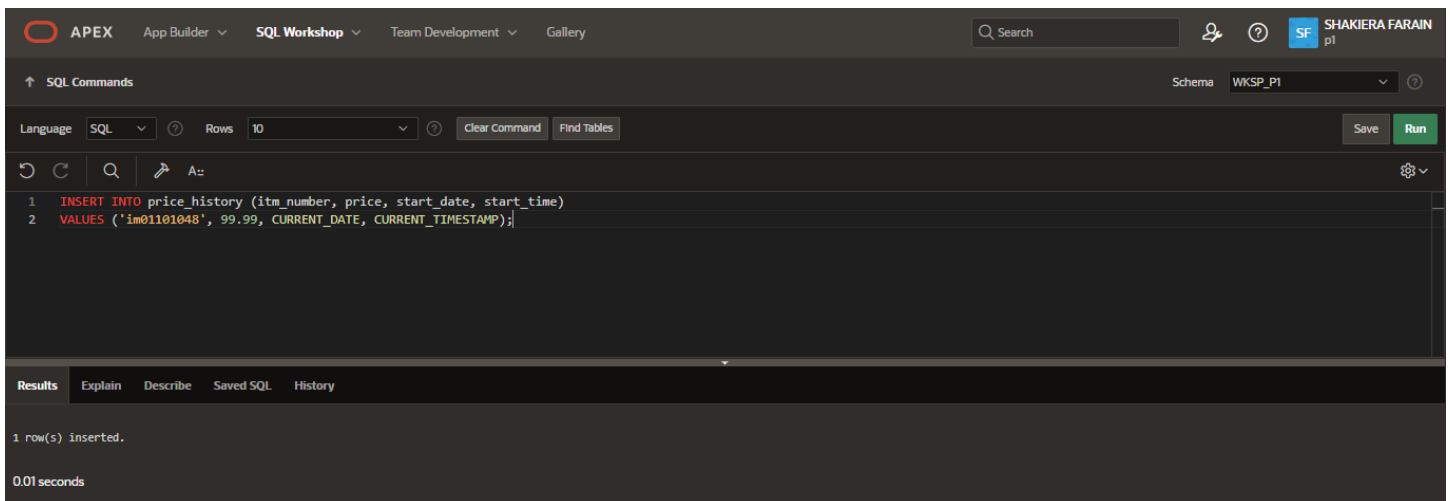


The screenshot shows the APEX SQL Workshop interface. The SQL Commands tab is active, displaying a SELECT query: `SELECT * FROM price_history;`. The Results tab is also active, showing a table with 7 rows. The table has columns: START_DATE, START_TIME, PRICE, END_DATE, END_TIME, and ITM_NUMBER. The data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

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 query: `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 the execution time: `0.01 seconds`.

5. 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. On the left is the Object Browser with a search bar and a list of database objects. The 'PRICE_HISTORY' table is selected and highlighted in green. The main panel displays the 'Data' tab for the 'PRICE_HISTORY' table. Above the table are tabs for Columns, Data, Indexes, Constraints, Grants, Statistics, Triggers, Dependencies, DDL, and Sample Queries. Below these tabs are action buttons: Insert Row, Columns..., Filter..., Count Rows, Load Data, Download, and Refresh. The table itself has columns: START_DATE, START_TIME, PRICE, END_DATE, END_TIME, and ITM_NUMBER. It contains 10 rows of data, with the first row having a price of 99.99 and the last row having a price of 149.

	START_DATE	START_TIME	PRICE	END_DATE	END_TIME	ITM_NUMBER
	11/10/2023	11/10/2023	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
	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

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 top bar includes the APEX logo, navigation tabs (App Builder, SQL Workshop, Team Development, Gallery), a search bar, and user information (SHAKIERA FARAIN p1). The main panel is titled 'SQL Commands' and shows a SQL statement being executed. The statement is: `DELETE FROM customers_addresses WHERE id = 'ca0101';`. Below the statement, the 'Results' tab is active, showing the output: '1 row(s) deleted.' and '0.03 seconds'.

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

Results Explain Describe Saved SQL History

1 row(s) deleted.

0.03 seconds

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

The screenshot displays the 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 'SHAKIERA FARAIN' are also visible. The 'SQL Commands' section shows a query: `SELECT * FROM customers_addresses;`. The 'Results' tab is active, displaying a table with 4 rows. The table columns are ID, ADDRESS_LINE_1, ADDRESS_LINE_2, CITY, ZIP_CODE, and CTR_NUMBER. The data rows are: (ca0102, 17 Gartsquare Road, Starford, Liverpool, LP89JHK, c00001), (ca0103, 54 Ropehill Crescent, Georgetown, Star, ST45AGV, c00101), (ca0104, 36 Watercress Lane, -, Jump, JP23YTH, c01986), and (ca0105, 63 Acacia Drive, Skins, Liverpool, LP83JHR, c00001). A status bar at the bottom indicates '4 rows returned in 0.02 seconds' and provides a 'Download' link.

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