

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 'Siti Khadijah lab_dml1' 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 0.04 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 App Builder SQL Workshop Team Development Gallery

Search

SK Siti Khadijah lab_dml1

SQL Commands Schema WKSP_LABDML1

Language SQL Rows 10 Clear Command Find Tables Save Run

```
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 Explain Describe Saved SQL History

1 row(s) updated.

0.02 seconds

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APEX App Builder SQL Workshop Team Development Gallery

Search

SK Siti Khadijah lab_dml1

Object Browser Schema WKSP_LABDML1

Type to filter...

- Tables
 - CUSTOMERS
 - CUSTOMERS_ADDRESSES
 - INVENTORY_LIST
 - ITEMS
 - ORDERED_ITEMS
 - ORDERS
 - PRICE_HISTORY
 - SALES_REPRESENTATIVES
 - SALES_REP_ADDRESSES
 - TEAMS
- Views
- Indexes
- Sequences
- Types
- Packages
- Procedures
- Functions
- Triggers
- Database Links
- Materialized Views
- Synonyms

PRICE_HISTORY

Columns Data Indexes Constraints Grants Statistics Triggers Dependencies DDL Sample Queries

+ Insert Row Columns... Filter... Count Rows Load Data Download Refresh

| | 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 |

1 cells selected

1 - 7

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

APEX App Builder SQL Workshop Team Development Gallery

Search

SK Siti Khadijah lab_dml1

SQL Commands Schema WKSP_LABDML1

Language SQL Rows 10 Clear Command Find Tables Save Run

```
1 SELECT *
2 FROM price_history;
```

Results Explain Describe Saved SQL History

| 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 0.00 seconds Download

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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.

APEX App Builder SQL Workshop Team Development Gallery

Search

SK Siti Khadijah lab_dml1

SQL Commands Schema WKSP_LABDML1

Language SQL Rows 10 Clear Command Find Tables Save Run

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

Results Explain Describe Saved SQL History

1 row(s) inserted.

0.02 seconds

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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 left sidebar contains an 'Object Browser' with a search bar and a tree view of database objects. The 'PRICE_HISTORY' table is selected and highlighted in green. The main area displays the 'Data' tab for the 'PRICE_HISTORY' table, showing a list of rows with columns: START_DATE, START_TIME, PRICE, END_DATE, END_TIME, and ITM_NUMBER. The table has 10 rows of data. The bottom status bar indicates '1 cells selected' and 'Oracle APEX 23.2.0-20'.

| | 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 | im01101045 |
| | 01/25/2017 | 01/25/2017 | 8.99 | | 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 |
| | 11/10/2023 | 11/10/2023 | 99.99 | | | 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.

APEX

App Builder

SQL Workshop

Team Development

Gallery

Search

SK

Siti Khadijah

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SQL Commands

Schema WKSP_LABDML1

Language SQL

Rows 10

Clear Command

Find Tables

Save

Run

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A:

1 DELETE FROM customers_addresses

2 WHERE id = 'ca0101';

Results

Explain

Describe

Saved SQL

History

1 row(s) deleted.

0.03 seconds

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

APEX

App Builder

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Search

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SQL Commands

Schema WKSP_LABDML1

Language SQL

Rows 10

Clear Command

Find Tables

Save

Run

↶

↷

🔍

🔗

A:

1 SELECT *

2 FROM customers_addresses;

Results

Explain

Describe

Saved SQL

History

| 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 |
| ca0101 | 83 Barrhill Drive | - | Liverpool | LP79HJK | c00001 |

5 rows returned in 0.00 seconds [Download](#)

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