

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.
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.

3. Run the “sports data.sql” script in APEX to populate your tables
4. Check that no errors occurred when you ran the script.

2	0.00	INSERT INTO inventory_list (id, cost, units) VALUES('I01023	1 row(s) inserted.	1
3	0.01	INSERT INTO inventory_list (id, cost, units) VALUES('I01023	1 row(s) inserted.	1
4	0.00	INSERT INTO inventory_list (id, cost, units) VALUES('I01023	1 row(s) inserted.	1
5	0.00	INSERT INTO inventory_list (id, cost, units) VALUES('I01023	1 row(s) inserted.	1
6	0.06	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	0.01	INSERT INTO items (itm_number, name, description, category,	1 row(s) inserted.	1
11	0.05	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	0.01	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

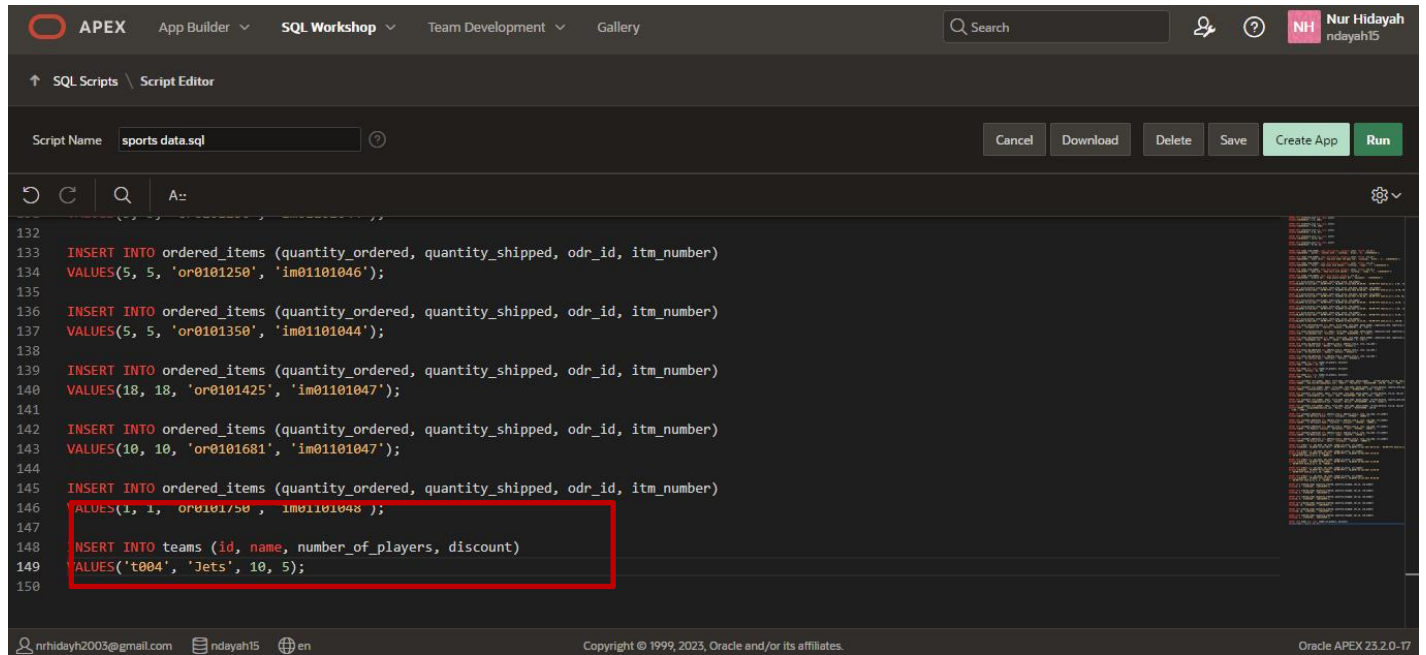
0

With Errors

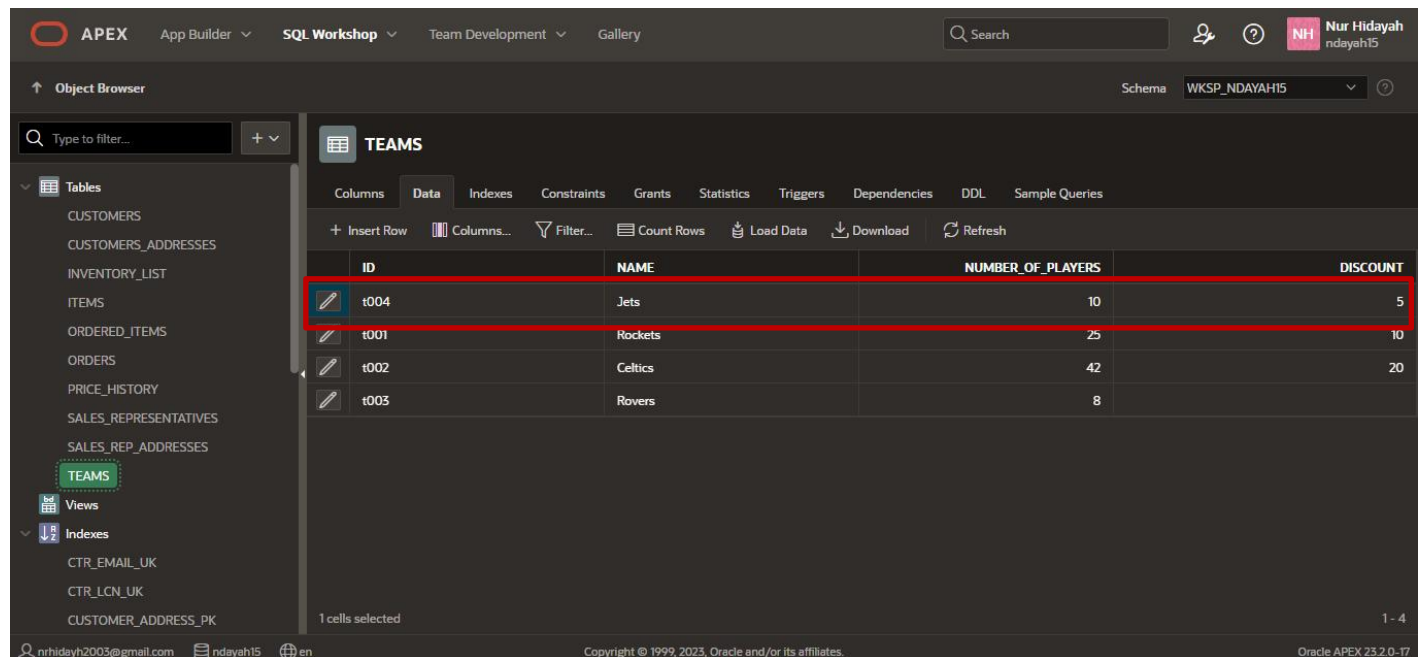
Part 2- Inserting rows to the system

1. Add a new team to the system

id	name	Number_of_players	discount
t004	Jets	10	5



```
132
133 INSERT INTO ordered_items (quantity_ordered, quantity_shipped, odr_id, itm_number)
134 VALUES(5, 5, 'or0101250', 'im01101046');
135
136 INSERT INTO ordered_items (quantity_ordered, quantity_shipped, odr_id, itm_number)
137 VALUES(5, 5, 'or0101350', 'im01101044');
138
139 INSERT INTO ordered_items (quantity_ordered, quantity_shipped, odr_id, itm_number)
140 VALUES(18, 18, 'or0101425', 'im01101047');
141
142 INSERT INTO ordered_items (quantity_ordered, quantity_shipped, odr_id, itm_number)
143 VALUES(10, 10, 'or0101681', 'im01101047');
144
145 INSERT INTO ordered_items (quantity_ordered, quantity_shipped, odr_id, itm_number)
146 VALUES(1, 1, 'or0101750', 'im01101048');
147
148 INSERT INTO teams (id, name, number_of_players, discount)
149 VALUES('t004', 'Jets', 10, 5);
150
```



ID	NAME	NUMBER_OF_PLAYERS	DISCOUNT
t004	Jets	10	5
t001	Rockets	25	10
t002	Celtics	42	20
t003	Rovers	8	

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@hootech.com	Brian	Rogers	01654564898	-5	lc4587		

Oracle APEX SQL Workshop interface showing the execution of SQL scripts. The script editor displays the following SQL statements:

```

136 INSERT INTO ordered_items (quantity_ordered, quantity_shipped, odr_id, itm_number)
137 VALUES(5, 5, 'or0101350', 'im01101044');
138
139 INSERT INTO ordered_items (quantity_ordered, quantity_shipped, odr_id, itm_number)
140 VALUES(18, 18, 'or0101425', 'im01101047');
141
142 INSERT INTO ordered_items (quantity_ordered, quantity_shipped, odr_id, itm_number)
143 VALUES(10, 10, 'or0101681', 'im01101047');
144
145 INSERT INTO ordered_items (quantity_ordered, quantity_shipped, odr_id, itm_number)
146 VALUES(1, 1, 'or0101750', 'im01101048');
147
148 INSERT INTO teams (id, name, number_of_players, discount)
149 VALUES('t004', 'Jets', 10, 5);
150
151 INSERT INTO customers(ctr_number, email, first_name, last_name, phone_number, current_balance,loyalty_card_number)
152 VALUES ('c02001', 'brianrog@hootech.com', 'Brian', 'Rogers', '01654564898', -5, 'lc4587')
  
```

The script is named "sports data.sql". The interface includes buttons for Cancel, Download, Delete, Save, Create App, and Run. The user is logged in as Nur Hidayah (ndayah15).

Oracle APEX Object Browser interface showing the CUSTOMERS table. The table structure and data are as follows:

Columns	Data	Indexes	Constraints	Grants	Statistics	Triggers	Dependencies	DDL	Sample Queries
CTR_NUMBER	EMAIL	FIRST_NAME	LAST_NAME	PHONE_NUMBER..	CURRENT_BALANCE	SRE_ID	TEM_ID	LOYALTY_CARD_NUMBER	
c00001	bob.thornberry...	Robert	Thornberry	01234567898	150	sr01	t001		
c00012	Jjones@freem...	Jennifer	Jones	01505214598	0			lc1015	
c00101	unknown@her...	John	Doe	03216547808	987.5	sr01	t002		
c00103	MurciaA@glob...	Andrew	Murcia	07715246890	85			lc2341	
c01986	margal87@del...	Maria	Galant	01442736589	125.65	sr03	t003		
c02001	brianrog@hoo...	Brian	Rogers	01654564898	-5			lc4587	

The table is named "CUSTOMERS" and is located in the schema "WKSP_NDAYAH15". The interface includes a search bar and a list of tables and views on the left. The user is logged in as Nur Hidayah (ndayah15).

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.

```
Script Name: sports data (3).sql [Cancel] [Download] [Delete] [Save] [Create App] [Run]

140 VALUES(18, 18, 'or0101425', 'im01101047');
141
142 INSERT INTO ordered_items (quantity_ordered, quantity_shipped, odr_id, itm_number)
143 VALUES(10, 10, 'or0101681', 'im01101047');
144
145 INSERT INTO ordered_items (quantity_ordered, quantity_shipped, odr_id, itm_number)
146 VALUES(1, 1, 'or0101750', 'im01101048');
147
148 INSERT INTO teams (id, name, number_of_players, discount)
149 VALUES ('t004', 'Jets', 10, 5);
150
151 INSERT INTO customers(ctr_number, email, first_name, last_name, phone_number, current_balance, loyalty_card_number)
152 VALUES ('c02001', 'brianrog@hootech.com', 'Brian', 'Rogers', '01654564898', -5, 'lc4587');
153
154 UPDATE customers
155 SET current_balance = 50
156 WHERE current_balance < 0;
157
```

Object Browser

Schema: WKSP_RAOMAN0702

Search: 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

CUSTOMERS

Columns | Data | Indexes | Constraints | Grants | Statistics | Triggers | Dependencies | DDL | Sample Queries

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

	CTR_NUMBER	EMAIL	FIRST_NAME	LAST_NAME	PHONE_NUMBER	CURRENT_BALANCE	SRE_ID	TEM_ID	LOYALTY_CARD_NUM
	c00001	bob.thornberry@...	Robert	Thornberry	01234567898	150	sr01	t001	
	c00012	JJones@freemail...	Jennifer	Jones	01505214598	0			lc1015
	c00101	unknown@here.c...	John	Doe	03216547808	9875	sr01	t002	
	c00103	MurciaA@globalt...	Andrew	Murcia	07715246890	85			lc2341
	c01986	margal87@delphi...	Maria	Galant	01442736589	125.65	sr03	t003	
	c02001	brianrog@hootec...	Brian	Rogers	01654564898	50			lc4587