

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

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

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		

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.

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CUSTOMERS RELATION

CTR_NUMBER	EMAIL	FIRST_NAME	LAST_NAME	PHONE_NUMBER	CURRENT_BALANCE	SRE_ID	TEM_ID	LOYALTY_CARD_NUMBER
1 c00001	bob.thornberry@heatmail.com	Robert	Thornberry	01234567898	150 sr01	t001	(null)	
2 c00012	Jjones@freemail.com	Jennifer	Jones	01505214598	0 (null)	(null)	1c1015	
3 c00101	unknown@here.com	John	Doe	03216547808	987.5 sr01	t002	(null)	
4 c00103	MurciaA@globaltech.com	Andrew	Murcia	07715246890	85 (null)	(null)	1c2341	
5 c01986	margalot7@delphiview.com	Maria	Galant	01442736589	125.65 sr03	t003	(null)	

CUSTOMER_ADDRESS RELATION

ID	ADDRESS_LINE_1	ADDRESS_LINE_2	CITY	ZIP_CODE	CTR_NUMBER
1 ca0101	83 Barrhill Drive	(null)	Liverpool	LP79HJK	c00001
2 ca0102	17 Gartsquare Road	Starford	Liverpool	LP89JHK	c00001
3 ca0103	54 Ropehill Crescent	Georgetown	Star	ST45AGV	c00101
4 ca0104	36 Watercress Lane	(null)	Jump	JP23YTH	c01986
5 ca0105	63 Acacia Drive	Skins	Liverpool	LP83JHR	c00001

INVENTORY_LIST RELATION

ID	COST	UNITS
1 i1010230124	2.5	100
2 i1010230125	7.99	250
3 i1010230126	5.24	87
4 i1010230127	18.95	65
5 i1010230128	97.46	8

ITEMS RELATION

ITM_NUMBER	NAME	DESCRIPTION	CATEGORY	COLOR	Size	ILT_ID
1 im01101044	gloves	catcher mitt	clothing	brown	m	i1010230124
2 im01101045	under shirt	top worn under the game top	clothing	white	s	i1010230125
3 im01101046	socks	team socks with emblem	clothing	range	l	i1010230126
4 im01101047	game top	team shirt with emblem	clothing	range	m	i1010230127
5 im01101048	premium bat	high quality baseball bat	equipment	(null)	(null)	i1010230128

ORDERED_ITEMS RELATION

	QUANTITY_ORDERED	QUANTITY_SHIPPED	ITM_NUMBER	ODR_ID
1	5		5 im01101044	or0101250
2	5		5 im01101046	or0101250
3	5		5 im01101044	or0101350
4	18		18 im01101047	or0101425
5	10		10 im01101047	or0101681
6	1		1 im01101048	or0101750

ORDERS RELATION

ID	ODR_DATE	ODR_TIME	NUMBER_OF_UNITS	CTR_NUMBER
1 or0101250	17/04/2017	17/04/2017	10 c00001	
2 or0101350	24/05/2017	24/05/2017	5 c00001	
3 or0101425	28/05/2017	28/05/2017	18 c00103	
4 or0101681	02/06/2017	02/06/2017	10 c00001	
5 or0101750	18/06/2017	18/06/2017	1 c01986	

PRICE_HISTORY RELATION

	START_DATE	START_TIME	PRICE	END_DATE	END_TIME	ITM_NUMBER
1	17/06/2017	17/06/2016	4.99 (null)	(null)	(null)	im01101044
2	25/11/2016	25/11/2016	14.99	25/01/2017	25/01/2017	im01101045
3	25/01/2017	25/01/2017	8.99	25/01/2017	25/01/2017	im01101045
4	26/01/2017	26/01/2017	15.99 (null)	(null)	(null)	im01101045
5	12/02/2017	12/02/2017	7.99 (null)	(null)	(null)	im01101046
6	25/04/2017	25/04/2017	24.99 (null)	(null)	(null)	im01101047
7	31/05/2017	31/05/2017	149 (null)	(null)	(null)	im01101048

TEAMS RELATION

	ID	NAME	NUMBER_OF_PLAYERS	DISCOUNT
1	t001	Rockets	25	10
2	t002	Celtics	42	20
3	t003	Rovers	8	(null)

Part 2- Inserting rows to the system

1. Add a new team to the system

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2. Add a new Customer with the following details to the system

```
INSERT INTO TEAMS
VALUES ('t004', 'JETS', 10, 5)
```

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1	t001	Rockets	25	10
2	t002	Celtics	42	20
3	t003	Rovers	8	(null)
4	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@hoootech.com	Brian	Rogers	01654564898	-5	lc4587		

```
INSERT INTO CUSTOMERS (ctr_number, email, first_name, last_name, phone_number, loyalty_card_number)
VALUES ('t004', 'brianrog@hoootech.com', 'Brian', 'Rogers', '01654564898', 'lc4587')
```

```
Error starting at line : 1 in command -
INSERT INTO CUSTOMERS(ctr_number, email, first_name, last_name, phone_number, current_balance, loyalty_card_n
VALUES ('t004', 'brianrog@hoootech.com', 'Brian', 'Rogers', '01654564898', -5, 'lc4587')
Error report -
ORA-02290: check constraint (SYSTEM.CURRENT_BALANCE_MIN) violated
```

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.

```
INSERT INTO CUSTOMERS (ctr_number, email, first_name, last_name, phone_number, loyalty_card_number)
VALUES ('t004', 'brianrog@hoootech.com', 'Brian', 'Rogers', '01654564898', 'lc4587')
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INSERT INTO CUSTOMERS(ctr_number, email, first_name, last_name, phone_number,
loyalty_card_number
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VALUES ('t004', 'brianrog@hoootech.com', 'Brian', 'Rogers', '01654564898', 'lc4587')
```

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2	c00012	JJones@freemail.com	Jennifer	Jones	01505214598	0	(null)	(null)	lc1015
3	c00101	unknown@here.com	John	Doe	03216547808	987.5	sr01	t002	(null)
4	c00103	MurciaA@globaltech.com	Andrew	Murcia	07715246890	85	(null)	(null)	lc2341
5	c01986	margal87@delphiview.com	Maria	Galant	01442736589	125.65	sr03	t003	(null)
6	t004	brianrog@hoootech.com	Brian	Rogers	01654564898	50	(null)	(null)	lc4587