

# **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.

TARLE THVENTORY LIST

Table created.

Table created.

```
1 v CREATE TABLE inventory_list(
2    id    VARCHAR2(20),
3     cost    NUMBER(6),
4     units    NUMBER(4)
5  );
6
7 DESCRIBE inventory_list;
```

Column	Null?	Туре
ID	=	VARCHAR2(20)
COST	U	NUMBER(6,0)
UNITS	-	NUMBER(4,0)

```
CREATE TABLE items(
 1 v
 2
         itm number
                       VARCHAR2(20),
                       VARCHAR2(20),
 3
         name
         description VARCHAR2(30),
 4
         category
                       VARCHAR2(20),
 5
         color
                       VARCHAR2(10),
 6
 7
         "Size"
                       VARCHAR2(4),
         ilt id
                       VARCHAR2(20)
 8
 9
     );
10
11
     DESCRIBE items;
```

Column	Null?	Type
ITM_NUMBER	-	VARCHAR2(20)
NAME	-	VARCHAR2(20)
DESCRIPTION	12	VARCHAR2(30)
CATEGORY	-2	VARCHAR2(20)
COLOR	-	VARCHAR2(10)
Size	-	VARCHAR2(4)
ILT ID	32	VARCHAR2(20)

```
1 v CREATE TABLE price history(
        start date
2
                       DATE,
        start_time
3
                       TIMESTAMP,
        price
4
                       NUMBER(4),
5
        end date
                       DATE,
6
        end time
                       TIMESTAMP,
                       VARCHAR2(20)
7
        itm number
8
    );
9
    DESCRIBE price_history;
10
```

## TABLE PRICE HISTORY Column Null? Type START\_DATE DATE START\_TIME TIMESTAMP(6) PRICE NUMBER(4,0) END\_DATE DATE TIMESTAMP(6) END\_TIME ITM\_NUMBER VARCHAR2(20)

#### Table created.

#### TABLE SALES REPRESENTATIVES

Column	Null?	Туре
ID	2:	VARCHAR2(6)
EMAIL	¥	VARCHAR2(20)
FIRST_NAME	29	VARCHAR2(10)
LAST_NAME	Ŧ.	VARCHAR2(10)
PHONE_NUMBER	÷.	VARCHAR2(10)
COMMISION_RATE	15	NUMBER(2,0)
SUPERVISOR_ID	-	VARCHAR2(4)

1 v	CREATE TABLE sales_r	epresentatives(
2	id	VARCHAR2(6),
3	email	VARCHAR2(20),
4	first_name	VARCHAR2(10),
5	last_name	VARCHAR2(10),
6	phone_number	VARCHAR2(10),
7	commision_rate	NUMBER(2),
8	supervisor_id	VARCHAR2(4)
9	);	
10		
11	DESCRIBE sales repre	sentatives:

Table created.

```
1 v CREATE TABLE sales_rep_addresses(
2
        id
                         VARCHAR2(4),
3
        address line 1
                         VARCHAR2(20),
4
        address line 2
                       VARCHAR2(10),
5
        city
                         VARCHAR2(10),
6
        zip code
                         VARCHAR2(10)
7
   );
8
   DESCRIBE sales rep addresses;
9
```

```
1 v CREATE TABLE teams(
2
        id
                              VARCHAR2(4),
3
                              VARCHAR2(10),
4
        number of players
                              NUMBER(2),
5
        discount
                              NUMBER(2)
6
    );
7
8
    DESCRIBE teams;
```

```
1 V CREATE TABLE customers(
         ctr number
 2
                               VARCHAR2(10),
                               VARCHAR2(30),
 3
         email
         first_name
 4
                               VARCHAR2(10),
 5
         last name
                               VARCHAR2(10),
                               VARCHAR2(10),
 6
         phone_number
 7
         current_balance
                               NUMBER(5,2),
         sre id
                               VARCHAR2(4),
 8
 9
         tem_id
                               VARCHAR2(4),
         loyalty card number
                               VARCHAR2(6)
10
     );
11
12
13
     DESCRIBE customers;
```

TABLE SALES REP ADDRESSES

Column	Null?	Туре
ID	-	VARCHAR2(4)
ADDRESS_LINE_1	42	VARCHAR2(20)
ADDRESS_LINE_2	2	VARCHAR2(10)
CITY	æ	VARCHAR2(10)
ZIP_CODE	-	VARCHAR2(10)

Table created.

TABLE TEAMS

Column	Null?	Туре
ID	=	VARCHAR2(4)
NAME	н	VARCHAR2(10)
NUMBER_OF_PLAYERS	¥	NUMBER(2,0)
DISCOUNT	0	NUMBER(2,0)

Column	Null?	Туре
CTR_NUMBER	2	VARCHAR2(10)
EMAIL	-57	VARCHAR2(30)
FIRST_NAME	5	VARCHAR2(10)
LAST_NAME	-	VARCHAR2(10)
PHONE_NUMBER	2	VARCHAR2(10)
CURRENT_BALANCE	-77	NUMBER(5,2)
SRE_ID	<del>o</del>	VARCHAR2(4)
TEM_ID	2	VARCHAR2(4)
LOYALTY CARD NUMBER	<u> </u>	VARCHAR2(6)

#### CREATE TABLE customers\_addresses( 2 VARCHAR2(6), id 3 address\_line\_1 VARCHAR2(25), 4 address line 2 VARCHAR2(10), 5 city VARCHAR2(10), zip\_code 6 VARCHAR2(7), 7 ctr\_number VARCHAR2(6) 8 ); 9 DESCRIBE customers\_addresses; 10

TABLE CUSTOMERS ADDRESSES

Column	Null?	Type
ID	=	VARCHAR2(6)
ADDRESS_LINE_1	u u	VARCHAR2(25)
ADDRESS_LINE_2	-	VARCHAR2(10)
CITY	н	VARCHAR2(10)
ZIP_CODE	=	VARCHAR2(7)
CTR_NUMBER	0	VARCHAR2(6)

#### 1 v CREATE TABLE orders( 2 id VARCHAR2(9), 3 ord\_date DATE, ord\_time 4 TIMESTAMP, 5 number\_of\_units NUMBER(2), 6 ctr\_number VARCHAR2(6) 7 );

DESCRIBE orders;

8

### TABLE ORDERS

Column	Null?	Туре
ID	173	VARCHAR2(9)
ORD_DATE	2 <del>4</del> 8	DATE
ORD_TIME	124	TIMESTAMP(6)
NUMBER_OF_UNITS	120	NUMBER(2,0)
CTR NUMBER	1.73	VARCHAR2(6)

1 v	CREATE TABLE ordered_	items(
2	quantity_ordered	NUMBER(2),
3	quantity_shipped	NUMBER(2),
4	odr_id	VARCHAR2(9),
5	itm_number	VARCHAR2(10)
6	);	
7		
8	DESCRIBE ordered_item	ıs;

### TABLE ORDERED\_ITEMS

Column	Null?	Туре
QUANTITY_ORDERED	-	NUMBER(2,0)
QUANTITY_SHIPPED	ш	NUMBER(2,0)
ODR_ID	0	VARCHAR2(9)
ITM_NUMBER	-	VARCHAR2(10)

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

```
1 v INSERT INTO inventory_list (id, cost, units)
     VALUES('il010230124', 2.5, 100);
 2
 3
 4 v INSERT INTO inventory_list (id, cost, units)
     VALUES('il010230125', 7.99, 250);
 5
 6
 7 v INSERT INTO inventory list (id, cost, units)
     VALUES('il010230126', 5.24, 87);
 8
9
10 V INSERT INTO inventory list (id, cost, units)
11
     VALUES('il010230127', 18.95, 65);
12
13 v INSERT INTO inventory_list (id, cost, units)
    VALUES('il010230128', 97.46, 8);
14
15
    SELECT * FROM inventory list;
16
```

ID	COST	UNITS
il010230124	3	100
il010230125	8	250
il010230126	5	87
il010230127	19	65
il010230128	97	8

```
1 v INSERT INTO items (itm_number, name, description, category, color, "Size", ilt_id )
    VALUES('im01101044', 'gloves', 'catcher mitt', 'clothing', 'brown', 'm', 'il010230124');
2
3
4 v INSERT INTO items (itm number, name, description, category, color, "Size", ilt id )
5
    VALUES('im01101045', 'under shirt', 'top worn under the game top', 'clothing', 'white', 's', 'il010230125');
6
7 v INSERT INTO items (itm number, name, description, category, color, "Size", ilt_id )
8
    VALUES('im01101046', 'socks', 'team socks with emblem', 'clothing', 'range', 'l', 'il010230126');
9
10 v INSERT INTO items (itm_number, name, description, category, color, "Size", ilt_id )
    VALUES('im01101047', 'game top', 'team shirt with emblem', 'clothing', 'range', 'm', 'il010230127');
11
12
13 \ INSERT INTO items (itm_number, name, description, category, ilt_id )
   VALUES('im01101048', 'premium bat', 'high quaity basball bat', 'equipment', 'il010230128');
14
15
16 SELECT * FROM items;
```

ITM_NUMBER	NAME	DESCRIPTION	CATEGORY	COLOR	Size	ILT_ID
im01101044	gloves	catcher mitt	clothing	brown	m	il010230124
im01101045	under shirt	top worn under the game top	clothing	white	S	il010230125
im01101046	socks	team socks with emblem	clothing	range	1	il010230126
im01101047	game top	team shirt with emblem	clothing	range	m	il010230127
im01101048	premium bat	high quaity basball bat	equipment	2	14	il010230128

```
VALUES(TO_DATE('25-Nov-2016', 'DD-MM-YYYY'), TO_DATE('25-Nov-2016 09:00:00', 'DD-MM-YYYY hh24:mi:ss'), 14.99, TO_DATE('25-Jan-2017'
7 VINSERT INTO price_history (start_date, start_time, price, end_date, end_time, itm_number)
8 VALUES(TO_DATE('25-Jan-2017', 'DD-MM-YYYYY'), TO_DATE('25-Jan-2017 17:01:00', 'DD-MM-YYYYY')
   VALUES(TO_DATE('25-Jan-2017', 'DD-MM-YYYY'), TO_DATE('25-Jan-2017 17:01:00', 'DD-MM-YYYY hh24:mi:ss'), 8.99, TO_DATE('25-Jan-2017',
9
10 V INSERT INTO price_history (start_date, start_time, price, itm_number)
11 VALUES(TO_DATE('26-Jan-2017', 'DD-MM-YYYY'), TO_DATE('26-Jan-2017 09:00:00', 'DD-MM-YYYY hh24:mi:ss'), 15.99, 'im01101045');
12
13 v INSERT INTO price history (start date, start time, price, itm number)
14 VALUES(TO DATE('12-Feb-2017', 'DD-MM-YYYY'), TO DATE('12-Feb-2017 12:30:00', 'DD-MM-YYYY hh24:mi:ss'), 7.99, 'im01101046');
15
16 v INSERT INTO price_history (start_date, start_time, price, itm_number)
17 VALUES(TO_DATE('25-Apr-2017', 'DD-MM-YYYY'), TO_DATE('25-Apr-2017 10:10', 'DD-MM-YYYY hh24:mi:ss'), 24.99, 'im01101047');
18
19 v INSERT INTO price history (start date, start time, price, itm number)
20 VALUES(TO DATE('31-May-2017', 'DD-MM-YYYY'), TO DATE('31-May-2017 16:35:30', 'DD-MM-YYYY hh24:mi:ss'), 149.00, 'im01101048');
21
22    SELECT * FROM price_history;
```

START_DATE	START_TIME	PRICE	END_DATE	END_TIME	ITM_NUMBER
17-JUN-17	17-JUN-16 09.00.00.000000 AM	5	0-8	5	im01101044
25-NOV-16	25-NOV-16 09.00.00.000000 AM	15	25-JAN-17	25-JAN-17 05.00.00.000000 PM	im01101045
25-JAN-17	25-JAN-17 05.01.00.000000 PM	9	25-JAN-17	25-JAN-17 07.00.00.000000 PM	im01101045
26-JAN-17	26-JAN-17 09.00.00.000000 AM	16	-7:	29	im01101045
12-FEB-17	12-FEB-17 12.30.00.000000 PM	8	G-	5	im01101046
25-APR-17	25-APR-17 10.10.10.000000 AM	25	0-8	-	im01101047
31-MAY-17	31-MAY-17 04.35.30.000000 PM	149	ne	E .	im01101048
17-JUN-17	17-JUN-16 09.00.00.000000 AM	5	1.7	5.	im01101044
25-NOV-16	25-NOV-16 09.00.00.000000 AM	15	25-JAN-17	25-JAN-17 05.00.00.000000 PM	im01101045

```
1 v INSERT INTO sales_representatives (id, email, first_name, last_name, phone_number, commision_rate, supervisor_id)
    VALUES('sr01', 'chray@obl.com', 'Charles', 'Raymond', '0134598761', 10, 'sr01');
4 v INSERT INTO sales representatives (id, email, first name, last name, phone number, commision rate, supervisor id)
    VALUES('sr02', 'vwright@obl.com', 'Victoria', 'Wright', '0134598762', 5, 'sr01');
7 v INSERT INTO sales_representatives (id, email, first_name, last_name, phone_number, commision_rate, supervisor_id)
    VALUES('sr03', 'bspeed@obl.com', 'Barry', 'Speed', '0134598763', 5, 'sr01');
10 SELECT * FROM sales_representatives;
```

ID	EMAIL	FIRST_NAME	LAST_NAME	PHONE_NUMBER	COMMISION_RATE	SUPERVISOR_ID
sr01	chray@obl.com	Charles	Raymond	0134598761	10	sr01
sr02	vwright@obl.com	Victoria	Wright	0134598762	5	sr01
sr03	bspeed@obl.com	Barry	Speed	0134598763	5	sr01

```
1 v INSERT INTO sales rep addresses (id, address line 1, address line 2, city, zip cod )
 2
    VALUES('sr01', '12 Cherry Lane', 'Denton', 'Detroit', 'DT48211');
3
4 v INSERT INTO sales_rep_addresses (id, address_line_1, address_line_2, city, zip_cod )
5
    VALUES('sr02', '87 Blossom Hill', 'Uptown', 'Detroit', 'DT52314');
6
7 v INSERT INTO sales_rep_addresses (id, address_line_1, address_line_2, city, zip_cod )
    VALUES('sr03', '12 Junction Row', 'Skinflats', 'Detroit', 'DT52564');
8
9
    SELECT * FROM sales_rep_addresses;
10
```

ID	ADDRESS_LINE_1	ADDRESS_LINE_2	CITY	ZIP_COD
sr01	12 Cherry Lane	Denton	Detroit	DT48211
sr02	87 Blossom Hill	Uptown	Detroit	DT52314
sr03	12 Junction Row	Skinflats	Detroit	DT52564

2 3

5

6

8 9

```
INSERT INTO customers (ctr_number, email, first_name, last_name, phone_number, current_balance, sre_id, tem_id, loyalty_card_number)

VALUES('c00001', 'bob.thornberry@heatmail.com', 'Robert', 'Thornberry', '01234567898', 150.00, 'sr01', 't001', null);

INSERT INTO customers (ctr_number, email, first_name, last_name, phone_number, current_balance, loyalty_card_number)

VALUES('c00012', 'Jjones@freemail.com', 'Jennifer', 'Jones', '01505214598', 0.00, 'lc1015');

INSERT INTO customers (ctr_number, email, first_name, last_name, phone_number, current_balance, sre_id, tem_id)

VALUES('c00101', 'unknown@here.com', 'John', 'Doe', '03216547808', 987.50, 'sr01', 't002');

INSERT INTO customers (ctr_number, email, first_name, last_name, phone_number, current_balance, loyalty_card_number)

VALUES('c00103', 'MurciaA@globaltech.com', 'Andrew', 'Murcia', '07715246890', 85.00, 'lc2341');

INSERT INTO customers (ctr_number, email, first_name, last_name, phone_number, current_balance, sre_id, tem_id)

VALUES('c01986', 'margal87@delphiview.com', 'Maria', 'Galant', '01442736589', 125.65

, 'sr03', 't003');

SELECT * FROM customers;
```

CTR_NUMBER	EMAIL	FIRST_NAME	LAST_NAME	PHONE_NUMBER	CURRENT_BALANCE	SRE_ID	TEM_ID	LOYALTY_CARD_NUMBE
c00001	bob.thornberry@heatmail.com	Robert	Thornberry	01234567898	150	sr01	t001	H1
c00012	Jjones@freemail.com	Jennifer	Jones	01505214598	0	-	2	lc1015
c00101	unknown@here.com	John	Doe	03216547808	987.5	sr01	t002	€.1
c00103	MurciaA@globaltech.com	Andrew	Murcia	07715246890	85	a	175	lc2341
c01986	margal87@delphiview.com	Maria	Galant	01442736589	125.65	sr03	t003	F

```
1 v INSERT INTO customers_addresses (id, address_line_1, address_line_2, city, zip_code, ctr_number)
    VALUES('ca0101', '83 Barrhill Drive', null, 'Liverpool', 'LP79HJK', 'c00001');
 2
 3
 4 V INSERT INTO customers_addresses (id, address_line_1, address_line_2, city, zip_code, ctr_number)
    VALUES('ca0102', '17 Gartsquare Road', 'Starford', 'Liverpool', 'LP89JHK', 'c00001');
 5
 6
    INSERT INTO customers_addresses (id, address_line_1, address_line_2, city, zip_code, ctr_number)
    VALUES('ca0103', '54 Ropehill Crescent', 'Georgetown', 'Star', 'ST45AGV', 'c00101');
8
9
    INSERT INTO customers_addresses (id, address_line_1, address_line_2, city, zip_code, ctr_number)
10 v
    VALUES('ca0104', '36 Watercress Lane', null, 'Jump', 'JP23YTH', 'c01986');
11
12
    INSERT INTO customers addresses (id, address line 1, address line 2, city, zip code, ctr number)
13 v
14
    VALUES('ca0105', '63 Acacia Drive', 'Skins', 'Liverpool', 'LP83JHR', 'c00001');
15
```

SELECT \* FROM customers\_addresses;

16

ID	ADDRESS_LINE_1	ADDRESS_LINE_2	CITY	ZIP_CODE	CTR_NUMBER
ca0101	83 Barrhill Drive	170	Liverpool	LР79HJK	c00001
ca0102	17 Gartsquare Road	Starford	Liverpool	LР89JHK	c00001
ca0103	54 Ropehill Crescent	Georgetown	Star	ST45AGV	c00101
ca0104	36 Watercress Lane	-	Jump	JP23YTH	c01986
ca0105	63 Acacia Drive	Skins	Liverpool	LP83JHR	c00001

```
2 VALUES('or0101250', TO_DATE('17-Apr-2017', 'DD-MM-YYYY'), TO_DATE('17-Apr-2017 08:32:30', 'DD-MM-YYYY hh24:mi:ss'), 10, 'c00001');
3
4 v INSERT INTO orders (id, odr_date, odr_time, number_of_units, ctr_number)
5 VALUES('or0101350', TO_DATE('24-May-2017', 'DD-MM-YYYY'), TO_DATE('24-May-2017 10:30:35
6 ', 'DD-MM-YYYY hh24:mi:ss'), 5, 'c00001');
8 v INSERT INTO orders (id, odr_date, odr_time, number_of_units, ctr_number)
    VALUES('or0101425', TO_DATE('28-May-2017', 'DD-MM-YYYY'), TO_DATE('28-May-2017 12:30:00
9
10
    ', 'DD-MM-YYYY hh24:mi:ss'), 18, 'c00103');
11
12 v INSERT INTO orders (id, odr_date, odr_time, number_of_units, ctr_number)
13 VALUES('or0101681', TO_DATE('02-Jun-2017', 'DD-MM-YYYY'), TO_DATE('02-Jun-2017 14:55:30
14 ', 'DD-MM-YYYY hh24:mi:ss'), 10, 'c00001');
15
16 V INSERT INTO orders (id, odr_date, odr_time, number_of_units, ctr_number)
17 VALUES('or0101750', TO_DATE('18-Jun-2017', 'DD-MM-YYYY'), TO_DATE('18-Jun-2017 09:05:00
18
   ', 'DD-MM-YYYY hh24:mi:ss'), 1, 'c01986');
19
20 SELECT * FROM orders;
```

ID	ODR_DATE	ODR_TIME	NUMBER_OF_UNITS	CTR_NUMBER
or0101250	17-APR-17	17-APR-17 08.32.30.000000 AM	10	c00001
or0101350	24-MAY-17	24-MAY-17 10.30.35.000000 AM	5	c00001
or0101425	28-MAY-17	28-MAY-17 12.30.00.000000 PM	18	c00103
or0101681	02-JUN-17	02-JUN-17 02.55.30.000000 PM	10	c00001
or0101750	18-JUN-17	18-JUN-17 09.05.00.000000 AM	1	c01986

```
1 v INSERT INTO ordered_items (quantity_ordered, quantity_shipped, odr_id, itm_number)
    VALUES(5, 5, 'or0101250', 'im01101044');
 2
 3
 4 v INSERT INTO ordered_items (quantity_ordered, quantity_shipped, odr_id, itm_number)
    VALUES(5, 5, 'or0101250', 'im01101046');
 5
 6
 7 v INSERT INTO ordered_items (quantity_ordered, quantity_shipped, odr_id, itm_number)
 8
    VALUES(5, 5, 'or0101350', 'im01101044');
9
10 v INSERT INTO ordered items (quantity ordered, quantity shipped, odr id, itm number)
    VALUES(18, 18, 'or0101425', 'im01101047');
11
12
13 v INSERT INTO ordered_items (quantity_ordered, quantity_shipped, odr_id, itm_number)
    VALUES(10, 10, 'or0101681', 'im01101047');
14
15
16 v INSERT INTO ordered_items (quantity_ordered, quantity_shipped, odr_id, itm_number)
    VALUES(1, 1, 'or0101750', 'im01101048');
17
18
19
    SELECT * FROM ordered items;
```

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

## 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

1 v 2		<pre>INSERT INTO teams(id, name, number_of_players, discount) VALUES('t004', 'Jets', 10, 5);</pre>							
4	SEL								
t	001	Rockets	25	10					
t	002	Celtics	42	20					
t	003	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@hoote ch.com	Brian	Rogers	01654564898	-5	lc4587		

```
1 v INSERT INTO customers (ctr_number, email, first_name, last_name, phone_number, current_balance, sre_id, tem_id, loyalty_card_number)
2 VALUES('c02001', 'brianrog@hootech.com', 'Brian', 'Rogers', '01654564898', -5, null, null, 'lc4587');
3
4 SELECT * FROM customers;
```

								^
CTR_NUMBER	EMAIL	FIRST_NAME	LAST_NAME	PHONE_NUMBER	CURRENT_BALANCE	SRE_ID	TEM_ID	LOYALTY_CARD_NU
c02001	brianrog@hootech.com	Brian	Rogers	01654564898	-5	12	29	1c4587
c00001	bob.thornberry@heatmail.com	Robert	Thornberry	01234567898	150	sr01	t001	-
c00012	Jjones@freemail.com	Jennifer	Jones	01505214598	0	-	-	lc1015
c00101	unknown@here.com	John	Doe	03216547808	987.5	sr01	t002	-
c00103	MurciaA@globaltech.com	Andrew	Murcia	07715246890	85	100	29	1c2341
c01986	margal87@delphiview.com	Maria	Galant	01442736589	125.65	sr03	t003	-

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.

```
1 v UPDATE customers
2   SET current_balance = 50
3   WHERE (current_balance = -5);
4
5   SELECT * FROM customers;
```

CTR_NUMBER	EMAIL	FIRST_NAME	LAST_NAME	PHONE_NUMBER	CURRENT_BALANCE	SRE_ID	TEM_ID	LOYALTY_CARD_NU
c02001	brianrog@hootech.com	Brian	Rogers	01654564898	50	-	7-1	1c4587
c00001	bob.thornberry@heatmail.com	Robert	Thornberry	01234567898	150	sr01	t001	-
c00012	Jjones@freemail.com	Jennifer	Jones	01505214598	0	a	āt i	lc1015
c00101	unknown@here.com	John	Doe	03216547808	987.5	sr01	t002	iei
c00103	MurciaA@globaltech.com	Andrew	Murcia	07715246890	85	-	24 1	lc2341
c01986	margal87@delphiview.com	Maria	Galant	01442736589	125.65	sr03	t003	

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IO	Email	First name	lost-name	phone_Mumber	Comission-rate	supervisirid
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	vwright@obl.com		0	0134598762		Srol
	hspe.deobl.com		Speed	0134598763	5	Srol
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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:

```
(end_time, 'HH24:MI')
FROM price_history;

1 v SELECT start_date, TO_CHAR (start_time, 'HH24:MI:SS'), price, end_date, TO_CHAR
2 (end_time, 'HH24:MI')
3 FROM price_history;
```

SELECT start date, TO CHAR (start time, 'HH24:MI:SS'), price, end date, TO CHAR

START_DATE	TO_CHAR(START_TIME, 'HH24:MI:SS')	PRICE	END_DATE	TO_CHAR(END_TIME, 'HH24:MI'
17-JUN-17	09:00:00	5	573	5
25-NOV-16	09:00:00	15	25-JAN-17	17:00
25-JAN-17	17:01:00	9	25-JAN-17	19:00
26-JAN-17	09:00:00	16	-	_
12-FEB-17	12:30:00	8	5/75	5
25-APR-17	10:10:10	25	ta.	ā
31-MAY-17	16:35:30	149	T-W	

2. Oblis 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.

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

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

START_DATE	START_TIME	PRICE	END_DATE	END_TIME	ITM_NUMBER				
17-JUN-17	17-JUN-16 09.00.00.000000 AM	5	55	-	im01101044				
25-NOV-16	25-NOV-16 09.00.00.000000 AM	15	25-JAN-17	25-JAN-17 05.00.00.000000 PM	im01101045				
25-JAN-17	25-JAN-17 05.01.00.000000 PM	9	25-JAN-17	25-JAN-17 07.00.00.000000 PM	im01101045				
26-JAN-17	26-JAN-17 09.00.00.000000 AM	16	(E)		im01101049				
12-FEB-17	12-FEB-17 12.30.00.000000 PM	8	55	5.	im01101046				
25-APR-17	25-APR-17 10.10.10.000000 AM	25		<u>.</u>	im01101047				

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.

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

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

START_DATE	START_TIME	PRICE	END_DATE	END_TIME	ITM_NUMBER
09-NOV-23	09-NOV-23 01.34.45.967319 AM	100	10	2	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 longer receive parcels at this address. Write a SQL statement that will remove this address from the system.

```
1 v DELETE FROM customers_addresses
2 WHERE address_line_1 = '83 Barrhill Drive'
3 AND ctr_number = 'c00001';
```

 $2. \quad \text{Run a select statement on the customers\_addresses table to ensure that the statement has been executed}.$ 

4 SELECT \* FROM customers\_addresses;

ID	ADDRESS_LINE_1	ADDRESS_LINE_2	RESS_LINE_2 CITY		CTR_NUMBER
ca0102	17 Gartsquare Road	Starford	Liverpool	LР89JHK	c00001
ca0103	54 Ropehill Crescent	Georgetown	Star	ST45AGV	c00101
ca0104	36 Watercress Lane	100	Jump	JP23YTH	c01986
ca0105	0105 63 Acacia Drive Skins		Liverpool	LP83JHR	c00001

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