

## 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 9 Exercise 2: Joining Tables Using JOIN

##### Write SELECT Statements Using Data From Multiple Tables Using Equijoins and Non-Equijoins (S6L9 Objective 1)

##### Part 1 : Use a Self-Join to Join a Table to Itself (S6L9 Objective 2)

1. Write a query that will display who the supervisor is for each of the sales representatives. The information should be displayed in two columns, the first column will be the first name and last name of the sales representative and the second will be the first name and last name of the supervisor. The column aliases should be Rep and Supervisor.

##### Part 2 : Use OUTER joins (S6L9 Objective 3)

1. Write a query that will display all of the team and customer information even if there is no match with the table on the left (team).

##### Part 3 : Generating a Cartesian Product (S6L9 Objective 4)

1. Create a Cartesian product between the customer and sales representative tables.

## Port 1

```
1. SELECT worker.FIRST_NAME AS 'Rep', worker.LAST_NAME AS " ",  
boss.FIRST_NAME AS "Supervisor", boss.LAST_NAME AS " " /  
  
FROM sales_representatives worker JOIN sales_representatives boss  
ON (worker.ID = boss.SUPERVISOR_ID)
```

## Port 2

```
1. SELECT t.ID, t.NAME, t.NUMBER_OF_PLAYERS, t.DISCOUNT,  
c.CTR_NUMBER, c.EMAIL, c.FIRST_NAME, c.LAST_NAME,  
c.PHONE_NUMBER, c.CURRENT_BALANCE, c.SPE_ID,  
c.TEM_ID, c.LOYALTY_CARD_NUMBER  
  
FROM teams t LEFT JOIN customers c  
ON (t.ID = c.TEM_ID)
```

## Port 3

```
1. SELECT customers.FIRST_NAME,  
sales_representatives.PHONE_NUMBER  
  
FROM customers CROSS JOIN sales_representatives
```