

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 6 Exercise 2: Retrieving Data Using SELECT

In this exercise you will retrieve data that is stored in the database system by using a SELECT statement.

1. Every customer has been told they can pay off their current balance over a 12 month period. Display the customer's first name, last name, current balance and monthly payment.

FROM customers;

Obl is considering giving a gift card to all its customers of 5.00 that can be used to reduce their current balance. Write a query that will show the customers first name, last name, customer number, current balance and the value of their balance minus the gift value.

FROM customers;

| Language | SQL | Rows | 10 | Clear Command | Find Tables | Save | Run |
|---|------------|------------|-----------------|-------------------|-------------|------|-----|
| <pre> 1 SELECT first_name,last_name,ctr_number,current_balance,current_balance-5 2 FROM customers; </pre> | | | | | | | |
| Results | Explain | Describe | Saved SQL | History | | | |
| FIRST_NAME | LAST_NAME | CTR_NUMBER | CURRENT_BALANCE | CURRENT_BALANCE-5 | | | |
| Brian | Rogers | c02001 | 50 | 45 | | | |
| Robert | Thornberry | c00001 | 150 | 145 | | | |
| Jennifer | Jones | c00012 | 0 | -5 | | | |
| John | Doe | c00101 | 9875 | 982.5 | | | |
| Andrew | Murcia | c00103 | 85 | 80 | | | |
| Maria | Galant | c01986 | 125.65 | 120.65 | | | |
| 5 rows returned in 0.01 seconds Download | | | | | | | |

- What would be the problem with implementing this scheme?
The current balance value after minus gift value will appear as negative value if the original value is less than 5

Part 2 : Using Column Aliases

- You previously wrote a query that display the customer's first name, last name, current balance and monthly payment. Rewrite the query to use First Name, Last Name, Balance and Monthly Repayments as the column aliases. The aliases are to be shown exactly as described (case sensitive).

```

SELECT first_name "First Name",
       last_name "Last Name",
       current_balance "Balance",
       current_balance/12 "Monthly Repayments"
FROM customers;

```

| Language | SQL | Rows | 10 | Clear Command | Find Tables | | |
|--|------------|----------|-----------------------------------|---------------|-------------|--|--|
| <pre> 1 SELECT first_name "First Name", 2 last_name "Last Name", 3 current_balance "Balance", 4 current_balance/12 "Monthly Repayments" 5 FROM customers; 6 </pre> | | | | | | | |
| Results | Explain | Describe | Saved SQL | History | | | |
| First Name | Last Name | Balance | Monthly Repayments | | | | |
| Brian | Rogers | 50 | 4.166666666666666666666666666667 | | | | |
| Robert | Thornberry | 150 | 12.5 | | | | |
| Jennifer | Jones | 0 | 0 | | | | |
| John | Doe | 9875 | 82.2916666666666666666666666667 | | | | |
| Andrew | Murcia | 85 | 7.083333333333333333333333333333 | | | | |
| Maria | Galant | 125.65 | 10.470833333333333333333333333333 | | | | |
| 5 rows returned in 0.01 seconds Download | | | | | | | |

Part 3: Using Literal Character Strings

1. Write a query that will display the team information in the following format:

The Rockets team has 25 players and receives a discount of 10 percent.

Use **Team Information** as the column alias.

```
SELECT 'The ' || name || ' team has ' || number_of_players ||  
' players and receives a discount of ' || discount || ' percent.' AS "Team Information"  
FROM teams;
```

The screenshot shows a SQL IDE interface. At the top, there's a toolbar with 'Language' set to 'SQL', 'Rows' set to '10', and buttons for 'Clear Command' and 'Find Tables'. Below the toolbar is a command area with a search icon and a cursor. The main area displays the following SQL query:

```
1 SELECT 'The ' || name || ' team has ' || number_of_players ||  
2 ' players and receives a discount of ' || discount || ' percent.' AS "Team Information"  
3 FROM teams;  
4
```

Below the query, there's a 'Results' tab with sub-tabs for 'Explain', 'Describe', 'Saved SQL', and 'History'. The 'Results' tab is active, showing a table with the following data:

| Team Information |
|--|
| The Rockets team has 25 players and receives a discount of 10 percent. |
| The Celtics team has 42 players and receives a discount of 20 percent. |
| The Rovers team has 8 players and receives a discount of percent. |
| The Jets team has 10 players and receives a discount of 5 percent. |

At the bottom of the results, it says '4 rows returned in 0.01 seconds' and there is a 'Download' button.

2. Why does the last team not show a discount?
Because the last team has a NULL value for the discount column.