



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

**SECD2523
DATABASE**

SECTION 10

SQL LAB 3 - DML 2 PART 2

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Section 6 Lesson 6 Exercise 1: Retrieving Data Using SELECT

Write and execute SELECT statements (S6L6 Objective 2)

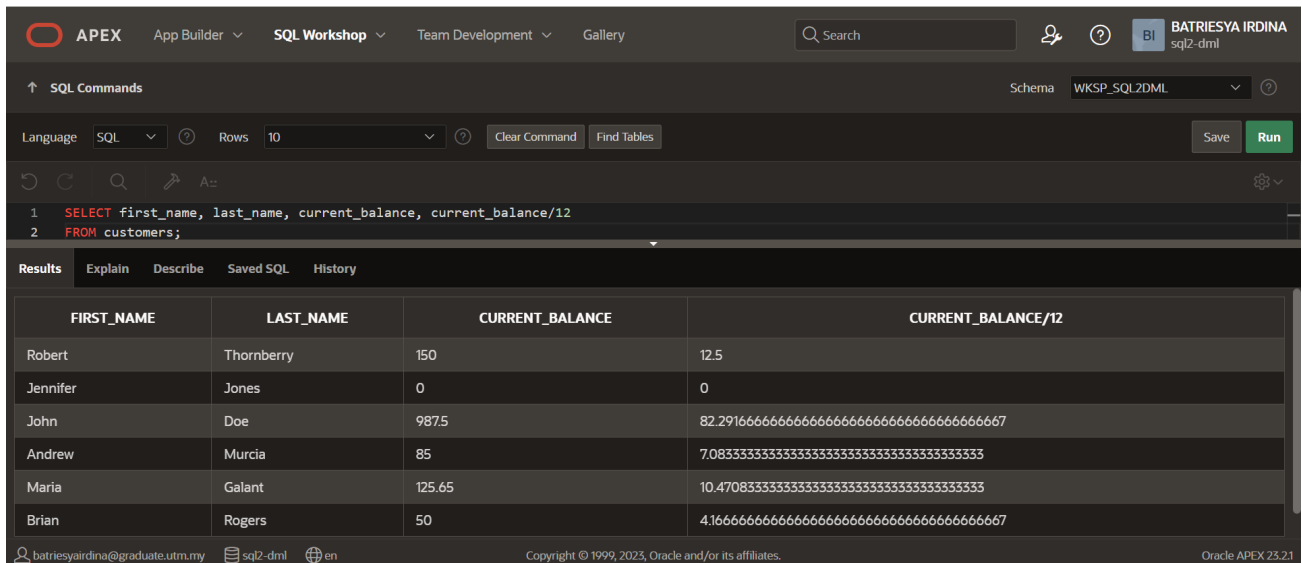
In this exercise, you will retrieve data that is stored in the database system by using a SELECT statement.

Part 1: Using Arithmetic Operators

Using the SELECT* statement, show all data stored in the following tables:

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.

- **SELECT first_name, last_name, current_balance, current_balance/12
FROM customers;**



The screenshot shows the APEX SQL Workshop interface. The SQL command entered is:

```
1 SELECT first_name, last_name, current_balance, current_balance/12
2 FROM customers;
```

The results are displayed in a table with the following columns: FIRST_NAME, LAST_NAME, CURRENT_BALANCE, and CURRENT_BALANCE/12. The data rows are:

FIRST_NAME	LAST_NAME	CURRENT_BALANCE	CURRENT_BALANCE/12
Robert	Thornberry	150	12.5
Jennifer	Jones	0	0
John	Doe	987.5	82.291666666666666666666666666667
Andrew	Murcia	85	7.0833333333333333333333333333333
Maria	Galant	125.65	10.4708333333333333333333333333333
Brian	Rogers	50	4.1666666666666666666666666666667

2. 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.

- **SELECT first_name, last_name, current_balance, current_balance-5
FROM customers;**

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SQL Commands Schema WKSP_SQL2DML

Language SQL Rows 10 Clear Command Find Tables Save Run

```
1 SELECT first_name, last_name, current_balance, current_balance-5
2 FROM customers;
```

Results Explain Describe Saved SQL History

FIRST_NAME	LAST_NAME	CURRENT_BALANCE	CURRENT_BALANCE-5
Robert	Thornberry	150	145
Jennifer	Jones	0	-5
John	Doe	987.5	982.5
Andrew	Murcia	85	80
Maria	Galant	125.65	120.65
Brian	Rogers	50	45

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3. What would be the problem with implementing this scheme?

The new current balance will be a negative value for any current balance that is less than 5 after deducting the 5.00 dollar gift card.

Part 2: Using Column Aliases

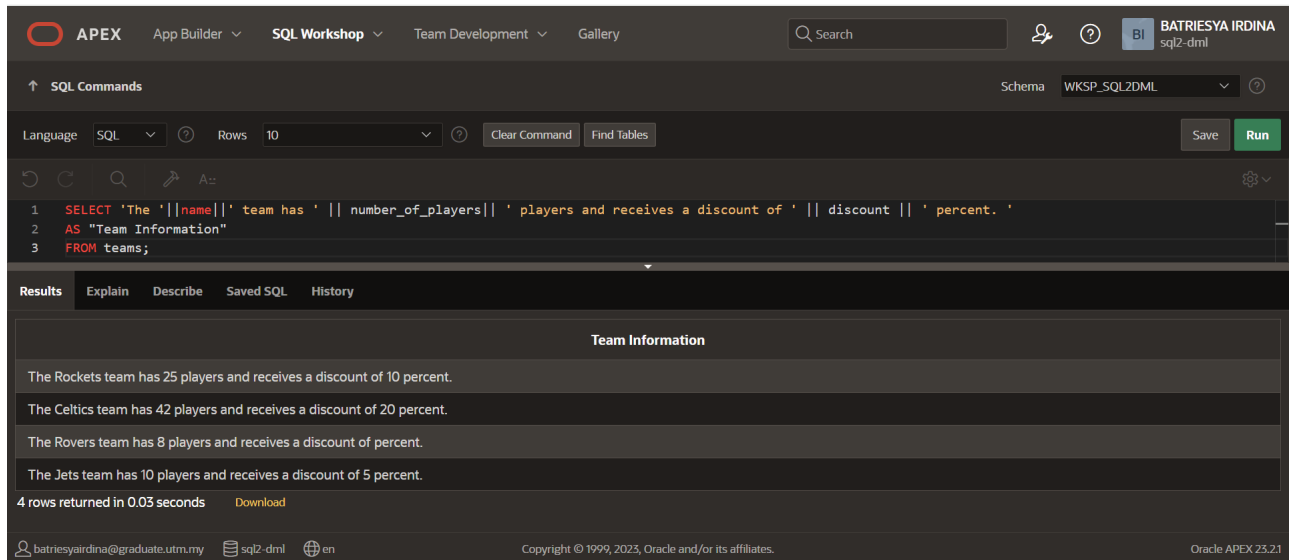
1. You previously wrote a query that displayed the customer's first name, last name, current balance and monthly payment. Rewrite the query to use First Name, Last Name, Balance and Monthly Repayments as the column aliases. The aliases are to be shown exactly as described (case sensitive).

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

[illegible]

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.



The screenshot shows the Oracle APEX SQL Workshop interface. The SQL command entered is:

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

The results are displayed in a table with the column alias "Team Information". The results show four rows of team information:

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.

4 rows returned in 0.03 seconds

2. Why does the last team not show a discount?
Team Rovers does not show any discount because their team has a NULL value for the discount column.