



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

**SECD2523
DATABASE**

SECTION 10

SQL LAB 3 - DML 2 PART 3

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Section 6 Lesson 7 Exercise 1: Restricting Data Using WHERE

Limit rows using WHERE (S6L7 Objective 1)

In this exercise, you will refine the data that is returned in your query by adding a WHERE clause to your SELECT statement.

Part 1: Using the WHERE Clause

1. Using the unique customer number in the where clause displays all columns for Maria Galant.

```
- SELECT*  
  FROM customers  
 WHERE ctr_number = 'c01986';
```

The screenshot shows the Oracle APEX SQL Workshop interface. The top navigation bar includes 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'Gallery'. A search bar and user profile 'BATRIESYA IRDINA' are on the right. The 'SQL Commands' section shows the executed query: `SELECT*
FROM customers
WHERE ctr_number = 'c01986';`. The 'Results' tab is active, displaying a table with 9 columns: CTR_NUMBER, EMAIL, FIRST_NAME, LAST_NAME, PHONE_NUMBER, CURRENT_BALANCE, SRE_ID, TEM_ID, and LOYALTY_CARD_NUMBER. The results show one row for customer 'c01986' (Maria Galant) with a current balance of 125.65. The status bar at the bottom indicates '1 rows returned in 0.01 seconds' and includes a 'Download' link.

CTR_NUMBER	EMAIL	FIRST_NAME	LAST_NAME	PHONE_NUMBER	CURRENT_BALANCE	SRE_ID	TEM_ID	LOYALTY_CARD_NUMBER
c01986	margal87@delphiview.com	Maria	Galant	01442736589	125.65	sr03	t003	-

2. Display the first name, last name and customer number for all customers who have a current balance of greater than 100. Use an appropriate alias for your column headings.

```
- SELECT first_name, last_name, current_balance, ctr_number  
  FROM customers  
 WHERE current_balance > 100;
```

APEX App Builder SQL Workshop Team Development Gallery

Schema: WKSP_SQL2DML

Language: SQL Rows: 10 Clear Command Find Tables Save Run

```

1 SELECT first_name, last_name, current_balance, ctr_number
2 FROM customers
3 WHERE current_balance > 100;

```

Results Explain Describe Saved SQL History

FIRST_NAME	LAST_NAME	CURRENT_BALANCE	CTR_NUMBER
Robert	Thornberry	150	c00001
John	Doe	987.5	c00101
Maria	Galant	125.65	c01986

3 rows returned in 0.01 seconds Download

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3. Display the order id, date and time of all orders that were placed before the 28th of May 2019. Use an appropriate alias for your column headings.

- **SELECT id AS "Order ID", odr_date AS "Order Date", odr_time AS "Order Time"**
FROM orders
WHERE odr_date < TO_DATE ('28-05-2019', 'DD-MM-YYYY');

APEX App Builder SQL Workshop Team Development Gallery

Schema: WKSP_SQL2DML

Language: SQL Rows: 10 Clear Command Find Tables Save Run

```

1 SELECT id AS "Order ID", odr_date AS "Order Date", odr_time AS "Order Time"
2 FROM orders
3 WHERE odr_date < TO_DATE ('28-05-2019', 'DD-MM-YYYY');

```

Results Explain Describe Saved SQL History

Order ID	Order Date	Order Time
or0101250	04/17/2017	04/17/2017
or0101350	05/24/2017	05/24/2017
or0101425	05/28/2017	05/28/2017
or0101681	06/02/2017	06/02/2017
or0101750	06/18/2017	06/18/2017

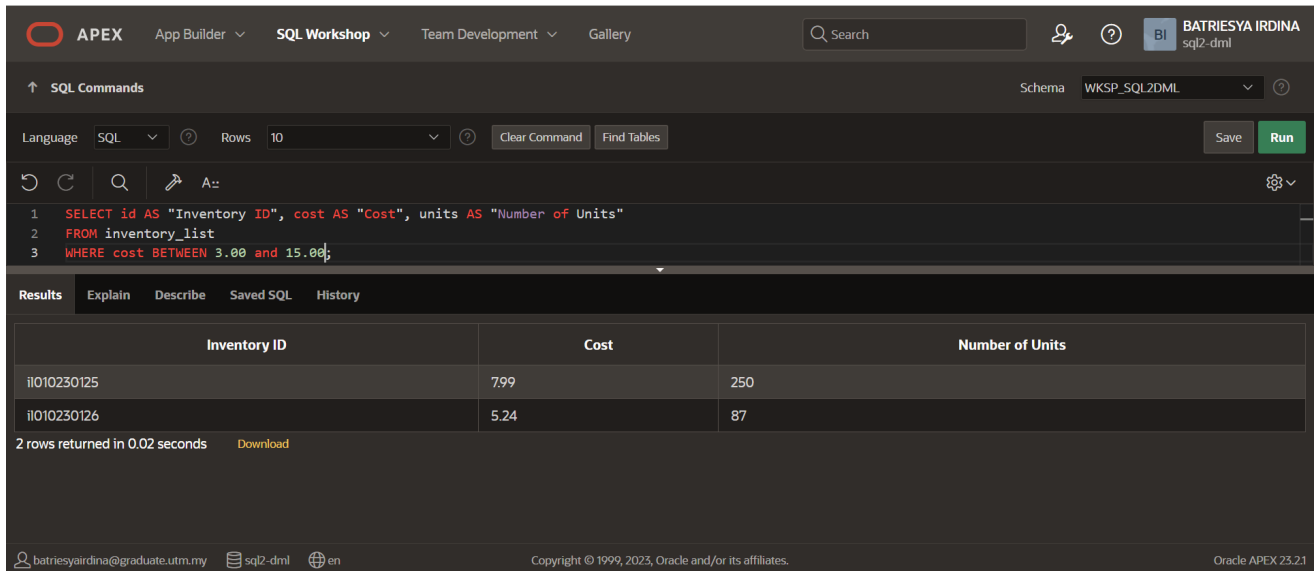
5 rows returned in 0.03 seconds Download

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Part 2: Range Conditions - BETWEEN Operator

1. Display the inventory id, cost and number of units using appropriate aliases for all items that have a trade cost between 3.00 and 15.00.

```
- SELECT id AS "Inventory ID", cost AS "Cost", units AS "Number of Units"
FROM inventory_list
WHERE cost BETWEEN 3.00 and 15.00;
```



The screenshot shows the Oracle APEX SQL Workshop interface. The top navigation bar includes 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'Gallery'. A search bar and user profile 'BATRIESYA IRDINA' are on the right. The 'SQL Commands' section shows a query with three lines: 'SELECT id AS "Inventory ID", cost AS "Cost", units AS "Number of Units"', 'FROM inventory_list', and 'WHERE cost BETWEEN 3.00 and 15.00;'. Below the query, the 'Results' tab is active, displaying a table with three columns: 'Inventory ID', 'Cost', and 'Number of Units'. The table contains two rows of data. A status bar at the bottom indicates '2 rows returned in 0.02 seconds' and provides a 'Download' link.

Inventory ID	Cost	Number of Units
il010230125	7.99	250
il010230126	5.24	87

2 rows returned in 0.02 seconds [Download](#)

Part 3: Membership Conditions - IN Operator

1. Display the inventory id, cost and number of units using appropriate aliases for all items that have 50, 100, 150 or 200 units in stock.

```
- SELECT id AS "Inventory ID", cost AS "Cost", units AS "Number of Units"
FROM inventory_list
WHERE units IN ('50', '100', '150', '200');
```

APEX App Builder SQL Workshop Team Development Gallery

Search

BATRIESYA IRDINA sql2-dml

SQL Commands Schema WKSP_SQL2DML

Language SQL Rows 10 Clear Command Find Tables Save Run

```
1 SELECT id AS "Inventory ID", cost AS "Cost", units AS "Number of Units"
2 FROM inventory_list
3 WHERE units IN ('50', '100', '150', '200');
```

Results Explain Describe Saved SQL History

Inventory ID	Cost	Number of Units
il010230124	2.5	100

1 rows returned in 0.04 seconds Download

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Part 3: Membership Conditions - NOT IN Operator

1. Display the inventory id, cost and number of units using appropriate aliases for all items that do not have 50, 100, 150 or 200 units in stock.

- **SELECT id AS "Inventory ID", cost AS "Cost", units AS "Number of Units"**
FROM inventory_list
WHERE units NOT IN ('50', '100', '150', '200');

APEX App Builder SQL Workshop Team Development Gallery

Search

BATRIESYA IRDINA sql2-dml

SQL Commands Schema WKSP_SQL2DML

Language SQL Rows 10 Clear Command Find Tables Save Run

```
1 SELECT id AS "Inventory ID", cost AS "Cost", units AS "Number of Units"
2 FROM inventory_list
3 WHERE units NOT IN ('50', '100', '150', '200');
```

Results Explain Describe Saved SQL History

Inventory ID	Cost	Number of Units
il010230125	799	250
il010230126	5.24	87
il010230127	18.95	65
il010230128	97.46	8

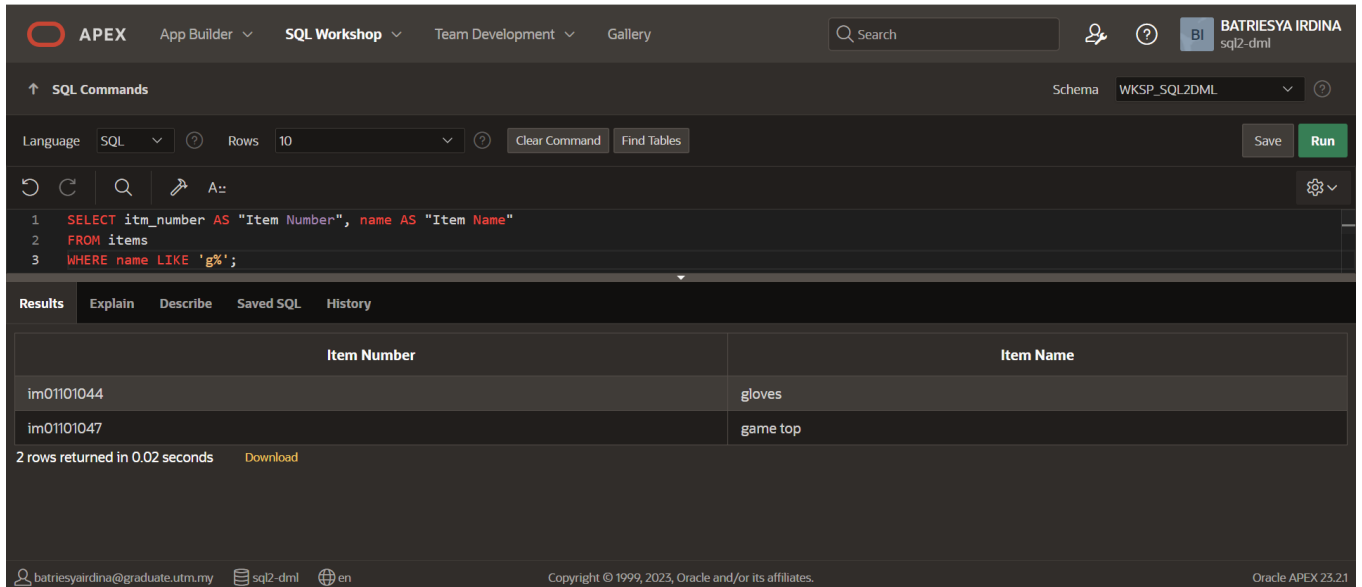
4 rows returned in 0.01 seconds Download

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Part 5: Pattern Matching - LIKE Operator

1. Display item number and name of all items that have a name that begins with g. Use an appropriate alias for your column headings.

```
- SELECT itm_number AS "Item Number", name AS "Item Name"  
FROM items  
WHERE name LIKE 'g%';
```



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

```
1 SELECT itm_number AS "Item Number", name AS "Item Name"  
2 FROM items  
3 WHERE name LIKE 'g%';
```

The results are displayed in a table with the following data:

Item Number	Item Name
im01101044	gloves
im01101047	game top

2 rows returned in 0.02 seconds

Part 6: Pattern Matching - Combining Wildcard Characters with the LIKE Operator

2. Display item number and name of all items that have a name that contain the lowercase o. Use an appropriate alias for your column headings.

```
- SELECT itm_number AS "Item Number", name AS "Item Name"  
FROM items  
WHERE name LIKE '%o%';
```

APEX

App Builder

SQL Workshop

Team Development

Gallery

Search

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BATRIESYA IRDINA

sql2-dml

SQL Commands

SchemaWKSP_SQL2DML

LanguageSQLRows10Clear CommandFind TablesSaveRun

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1SELECT itm_number AS "Item Number", name AS "Item Name"

2FROM items

3WHERE name LIKE '%o%';

Results

ExplainDescribeSaved SQLHistory

Item Number	Item Name
im01101044	gloves
im01101046	socks
im01101047	game top

3 rows returned in 0.00 secondsDownload

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sql2-dml

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