



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

SECD2523 - DATABASE

SECTION 10

SQL 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 display all columns for Maria Galant.

The screenshot shows the SQL Developer interface with the following SQL command:

```
1 SELECT *
2 FROM customers
3 WHERE ctr_number='c01986';
```

The results tab displays the following data:

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	-

1 rows returned in 0.01 seconds

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.

The screenshot shows the SQL Developer interface with the following SQL command:

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

The results tab displays the following data:

FIRST_NAME	LAST_NAME	CTR_NUMBER
Robert	Thornberry	c00001
John	Doe	c00101
Maria	Galant	c01986

3 rows returned in 0.01 seconds

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.

SQL Commands

Schema: WKSP_SQL1ANNHAZEL

Language: SQL Rows: 10

Clear Command Find Tables Save Run

```

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

```

Results Explain Describe Saved SQL History

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

5 rows returned in 0.01 seconds Download

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 of between 3.00 and 15.00.

SQL Commands

Schema: WKSP_SQL1ANNHAZEL

Language: SQL Rows: 10

Clear Command Find Tables Save Run

```

1 SELECT ID as "Inventory ID",
2 cost AS "Cost", units AS "Number of Units"
3 FROM inventory_list
4 WHERE cost BETWEEN 3.00 AND 15.00;

```

Results Explain Describe Saved SQL History

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

2 rows returned in 0.00 seconds Download

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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.

↑ SQL Commands

Schema WKSP_SQL1ANNHAZEL

Language SQL Rows 10

Clear Command Find Tables

Save Run

↺ ↻ 🔍 📌 A:

1 SELECT ID as "Inventory ID",

2 cost AS "Cost", units AS "Number of Units"

3 FROM inventory_list

4 WHERE units IN ('50', '100', '150', '200');

Results Explain Describe Saved SQL History

Inventory ID	Cost	Number of Units
il010230124	25	100

1 rows returned in 0.03 seconds [Download](#)

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Oracle APEX 23.21

Part 4: 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.

The screenshot shows the Oracle APEX SQL Commands interface. The query entered is:

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

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

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

The footer of the interface shows the user 'annsimon@graduate.utm.my', the schema 'WKSP_SQLIANNHAZEL', and the version 'Oracle APEX 23.21'.

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.

The screenshot shows the Oracle APEX SQL Commands interface. The query entered is:

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

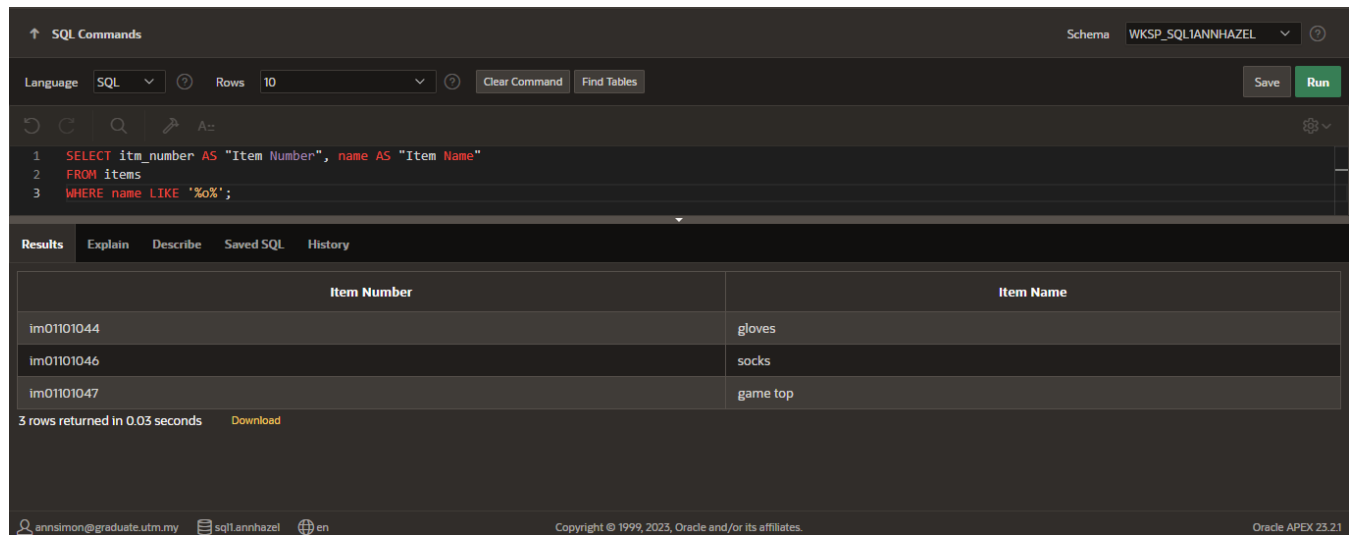
The results are displayed in a table with the following data:

Item Number	Item Name
im01101044	gloves
im01101047	game top

Below the table, it states "2 rows returned in 0.01 seconds" and provides a "Download" link. The footer of the interface shows the user 'annsimon@graduate.utm.my', the schema 'WKSP_SQLIANNHAZEL', and the version 'Oracle APEX 23.21'.

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

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



The screenshot shows an SQL IDE interface. At the top, the 'SQL Commands' tab is active. The 'Language' is set to 'SQL' and 'Rows' is set to '10'. The 'Schema' dropdown is set to 'WKSP_SQLIANNHAZEL'. The SQL command entered is:

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

The 'Results' tab is active, showing a table with two columns: 'Item Number' and 'Item Name'. The table contains three rows of data:

Item Number	Item Name
im01101044	gloves
im01101046	socks
im01101047	game top

Below the table, it states '3 rows returned in 0.03 seconds' and provides a 'Download' link. The footer of the IDE shows the user 'annsimon@graduate.utm.my', the database 'sqlIannhazel', and the version 'Oracle APEX 23.21'.