



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

SECD2523 - DATABASE

SECTION 10

SQL 4 : DML 3 PART 2

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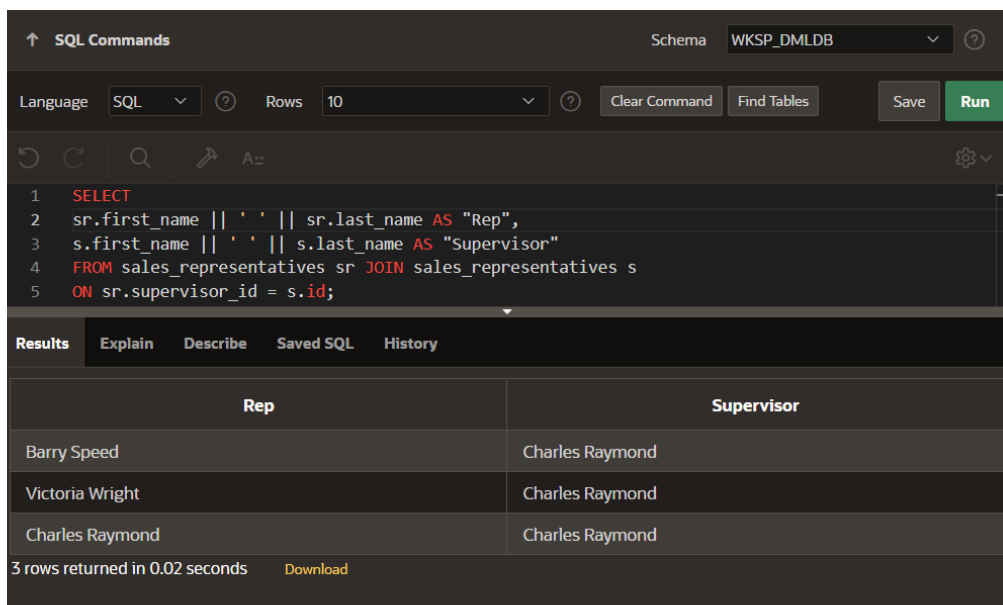
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Section 6 Lesson 9 Exercise 2: Joining Tables Using JOIN

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.



The screenshot shows an SQL IDE interface. At the top, the 'SQL Commands' tab is active, and the schema is set to 'WKSP_DMLDB'. The language is 'SQL' and the number of rows to display is '10'. The query being executed is a self-join on the 'sales_representatives' table. The query text is as follows:

```
1 SELECT
2 sr.first_name || ' ' || sr.last_name AS "Rep",
3 s.first_name || ' ' || s.last_name AS "Supervisor"
4 FROM sales_representatives sr JOIN sales_representatives s
5 ON sr.supervisor_id = s.id;
```

Below the query editor, the 'Results' tab is selected, showing a table with two columns: 'Rep' and 'Supervisor'. The table contains three rows of data. At the bottom of the results, it states '3 rows returned in 0.02 seconds' and provides a 'Download' link.

Rep	Supervisor
Barry Speed	Charles Raymond
Victoria Wright	Charles Raymond
Charles Raymond	Charles Raymond

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).

APEX App Builder SQL Workshop Team Development Gallery

Schema: WKSP_DMLDB

Language: SQL Rows: 10

```

1 SELECT*
2 FROM teams t FULL OUTER JOIN customers c
3 ON t.id = c.tem_id;
4 ORDER BY ctr_number;

```

Results Explain Describe Saved SQL History

ID	NAME	NUMBER_OF_PLAYERS	DISCOUNT	CTR_NUMBER	EMAIL	FIRST_NAME	LAST_NAME	PHONE_NUMBER	CURRENT_BALANCE	SRE_ID	TEM_ID	LOYALTY_CARD_NUMBER
t001	Rockets	25	10	c00001	bob.thornberry@heatmail.com	Robert	Thornberry	01234567898	150	sr01	t001	-
-	-	-	-	c00012	Jjones@freemail.com	Jennifer	Jones	01505214598	0	-	-	lc1015
t002	Celtics	42	20	c00101	unknown@here.com	John	Doe	03216547808	987.5	sr01	t002	-
-	-	-	-	c00103	MurciaA@globaltech.com	Andrew	Murcia	07715246890	85	-	-	lc2341
t003	Rovers	8	-	c01986	margal87@delphiview.com	Maria	Galant	01442736589	125.65	sr03	t003	-
-	-	-	-	c02001	brianrog@hootech.com	Brian	Rogers	01654564898	50	-	-	lc4587
t004	Jets	10	5	-	-	-	-	-	-	-	-	-

7 rows returned in 0.01 seconds Download

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

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

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Schema: WKSP_DMLDB

Language: SQL Rows: 10

```

1 SELECT*
2 FROM customers CROSS JOIN sales_representatives;

```

Results Explain Describe Saved SQL History

CTR_NUMBER	EMAIL	FIRST_NAME	LAST_NAME	PHONE_NUMBER	CURRENT_BALANCE	SRE_ID	TEM_ID	LOYALTY_CARD_NUMBER	ID	EMAIL	FIRST_NAME	LAST_N
c00001	bob.thornberry@heatmail.com	Robert	Thornberry	01234567898	150	sr01	t001	-	sr03	bspeed@obl.com	Barry	Speed
c00103	MurciaA@globaltech.com	Andrew	Murcia	07715246890	85	-	-	lc2341	sr03	bspeed@obl.com	Barry	Speed
c01986	margal87@delphiview.com	Maria	Galant	01442736589	125.65	sr03	t003	-	sr03	bspeed@obl.com	Barry	Speed
c00012	Jjones@freemail.com	Jennifer	Jones	01505214598	0	-	-	lc1015	sr03	bspeed@obl.com	Barry	Speed
c00101	unknown@here.com	John	Doe	03216547808	987.5	sr01	t002	-	sr03	bspeed@obl.com	Barry	Speed
c02001	brianrog@hootech.com	Brian	Rogers	01654564898	50	-	-	lc4587	sr03	bspeed@obl.com	Barry	Speed
c00001	bob.thornberry@heatmail.com	Robert	Thornberry	01234567898	150	sr01	t001	-	sr02	vwright@obl.com	Victoria	Wright
c00103	MurciaA@globaltech.com	Andrew	Murcia	07715246890	85	-	-	lc2341	sr02	vwright@obl.com	Victoria	Wright
c01986	margal87@delphiview.com	Maria	Galant	01442736589	125.65	sr03	t003	-	sr02	vwright@obl.com	Victoria	Wright
c00012	Jjones@freemail.com	Jennifer	Jones	01505214598	0	-	-	lc1015	sr02	vwright@obl.com	Victoria	Wright

More than 10 rows available. Increase rows selector to view more rows.

10 rows returned in 0.01 seconds Download