



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

SECD2523-06 (DATABASE)

LAB EXERCISE 4 :DML 3

Faculty of Computing

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LESSON 9 EXERCISE 1

Part 1

1. `SELECT *`
`FROM SALES_REPRESENTATIVES NATURAL JOIN SALES_REP_ADDRESSES`

SQL | All Rows Fetched: 3 in 0.024 seconds

ID	EMAIL	FIRST_NAME	LAST_NAME	PHONE_NUMBER	COMMISSION_RATE	SUPERVISOR_ID	ADDRESS_LINE_1	ADDRESS_LINE_2	CITY	ZIP_CODE
1 sr01	chray@obl.com	Charles	Raymond	0134598761	10	sr01	12 Cherry Lane	Denton	Detroit	DT48211
2 sr02	vwright@obl.com	Victoria	Wright	0134598762	5	sr01	87 Blossom Hill	Uptown	Detroit	DT52314
3 sr03	bspeed@obl.com	Barry	Speed	0134598763	5	sr01	12 Junction Row	Skinflats	Detroit	DT52564

2. `SELECT id, first_name, last_name, address_line_1, address_line_2, city,`
`email, phone_number`
`FROM SALES_REPRESENTATIVES NATURAL JOIN SALES_REP_ADDRESSES`

ID	FIRST_NAME	LAST_NAME	ADDRESS_LINE_1	ADDRESS_LINE_2	CITY	EMAIL	PHONE_NUMBER
1 sr01	Charles	Raymond	12 Cherry Lane	Denton	Detroit	chray@obl.com	0134598761
2 sr02	Victoria	Wright	87 Blossom Hill	Uptown	Detroit	vwright@obl.com	0134598762
3 sr03	Barry	Speed	12 Junction Row	Skinflats	Detroit	bspeed@obl.com	0134598763

Part 2

1. `SELECT id, first_name, last_name, address_line_1, address_line_2, city,`
`email, phone_number`
`FROM SALES_REPRESENTATIVES NATURAL JOIN SALES_REP_ADDRESSES`
`USING (id)`

SQL | All Rows Fetched: 3 in 0.006 seconds

ID	FIRST_NAME	LAST_NAME	ADDRESS_LINE_1	ADDRESS_LINE_2	CITY	EMAIL	PHONE_NUMBER
1 sr01	Charles	Raymond	12 Cherry Lane	Denton	Detroit	chray@obl.com	0134598761
2 sr02	Victoria	Wright	87 Blossom Hill	Uptown	Detroit	vwright@obl.com	0134598762
3 sr03	Barry	Speed	12 Junction Row	Skinflats	Detroit	bspeed@obl.com	0134598763

2. `SELECT *`
`FROM ITEM JOIN PRICE_HISTORY`
`USING (ITEM_NUMBER)`

ITEM_NUMBER	NAME	DESCRIPTION	CATEGORY	COLOR	Size	ILT_ID	START_DATE	START_TIME	PRICE	END_DATE	END_TIME
1 im01101044	gloves	catcher mitt	clothing	brown	m	i1010230124	17/06/2017	17/06/2016	4.99 (null)	(null)	(null)
2 im01101045	under shirt	top worn under the game top	clothing	white	s	i1010230125	25/11/2016	25/11/2016	14.99	25/01/2017	25/01/2017
3 im01101045	under shirt	top worn under the game top	clothing	white	s	i1010230125	25/01/2017	25/01/2017	8.99	25/01/2017	25/01/2017
4 im01101045	under shirt	top worn under the game top	clothing	white	s	i1010230125	26/01/2017	26/01/2017	15.99 (null)	(null)	(null)
5 im01101046	socks	team socks with emblem	clothing	range	l	i1010230126	12/02/2017	12/02/2017	7.99 (null)	(null)	(null)
6 im01101047	game top	team shirt with emblem	clothing	range	m	i1010230127	25/04/2017	25/04/2017	24.99 (null)	(null)	(null)
7 im01101048	premium bat	high quality baseball bat	equipment	(null)	(null)	i1010230128	31/05/2017	31/05/2017	149 (null)	(null)	(null)

Part 3

```

SELECT c.ctr_number, c.first_name, c.last_name, c.phone_number
       c.email, s.id, s.first_name, s.last_name, s.email

FROM CUSTOMERS c JOIN SALES_REPRESENTATIVES s
ON (c.sre_id = s.id)

```

CTR_NUMBER	FIRST_NAME	LAST_NAME	PHONE_NUMBER	EMAIL	ID	FIRST_NAME_1	LAST_NAME_1	EMAIL_1
1 c00001	Robert	Thornberry	01234567898	bob.thornberry@heatmail.com	sr01	Charles	Raymond	chray@obl.com
2 c00101	John	Doe	03216547808	unknown@here.com	sr01	Charles	Raymond	chray@obl.com
3 c01986	Maria	Galant	01442736589	margal87@delphiview.com	sr03	Barry	Speed	bspeed@obl.com

Part 4

```

SELECT c.ctr_number, c.first_name, c.last_name, c.phone_number
       c.email, s.id, s.first_name, s.last_name, s.email

FROM CUSTOMERS c JOIN SALES_REPRESENTATIVES s
ON (c.sre_id = s.id)
JOIN teams t
ON (c.tem_id = t.id)

```

CTR_NUMBER	FIRST_NAME	LAST_NAME	PHONE_NUMBER	EMAIL	ID	FIRST_NAME_1	LAST_NAME_1	EMAIL_1	TEAM NAME
1 c00001	Robert	Thornberry	01234567898	bob.thornberry@heatmail.com	sr01	Charles	Raymond	chray@obl.com	Rockets
2 c00101	John	Doe	03216547808	unknown@here.com	sr01	Charles	Raymond	chray@obl.com	Celtics
3 c01986	Maria	Galant	01442736589	margal87@delphiview.com	sr03	Barry	Speed	bspeed@obl.com	Rovers

Part 5

```
SELECT c.ctr_number, c.first_name, c.last_name, c.phone_number
       c.email, s.id, s.first_name, s.last_name, s.email
```

```
FROM CUSTOMERS c JOIN SALES_REPRESENTATIVES s
ON (c.sr_id = s.id)
JOIN teams t
ON (c.tem_id = t.id)
AND c.ctr_number = 'c00001'
```

CTR_NUMBER	FIRST_NAME	LAST_NAME	PHONE_NUMBER	EMAIL	ID	FIRST_NAME_1	LAST_NAME_1	EMAIL_1	TEAM NAME
1 c00001	Robert	Thornberry	01234567898	bob.thornberry@heatmail.com	sr01	Charles	Raymond	chray@obl.com	Rockets

Part 6

```
SELECT 'The cost of ' || i.name || ' on this day was ' || p.price
FROM ITEMS i JOIN PRICE_HISTORY p
ON i.item_number = 'im01101045' AND ('12-DEC-2016'
BETWEEN p.start_date AND p.end_date)
```

	'THECOSTOF' I.NAME 'ONTHISDAYWAS' P.PRICE
1	The cost of under shirt on this day was 14.99

```

Part 1 SELECT rep.first_name || rep.last_name AS "Name",
            sp.first_name || sp.last_name AS "SUPERVISOR"
FROM sales-representatives rep JOIN sales-representatives sp
ON ( sp.id = rep.supervisor_id );

```

PART 2

```
SELECT teams t LEFT OUTER JOIN customers c
ON (c.team_id = t.id)
```

ID	NAME	NUMBER_OF_PLAYERS	DISCOUNT	CTR_NUMBER	EMAIL	FIRST_NAME	LAST_NAME	PHONE_NUMBER	CURRENT_BALANCE	SRE_ID	TEM_ID	LOYALTY_CARD_NUMBER
1 t001	Rockets	25	10	c00001	bob.thornberry@heatmail.com	Robert	Thornberry	01234567898	150	sr01	t001	(null)
2 t002	Celtics	42	20	c00101	unknown@here.com	John	Doe	03216547808	987.5	sr01	t002	(null)
3 t003	Rovers	8	(null)	c01986	margal87@delphiview.com	Maria	Galant	01442736589	125.65	sr03	t003	(null)
4 t004	Jets	10	5	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)

PART 3

SELECT * CROSS JOIN sales_representatives

CTR_NUMBER	EMAIL	FIRST_NAME	LAST_NAME	PHONE_NUMBER	CURRENT_BALANCE	SRE_ID	TEM_ID	LOYALTY_CARD_NUMBER	ID	EMAIL_1	FIRST_NAME_1	LAST_NAME_1	
1 c00001	bob.thornberry@heatmail.com	Robert	Thornberry	01234567898	150	sr01	t001	(null)	sr01	chray@obl.com	Charles	Raymond	01
2 c00001	bob.thornberry@heatmail.com	Robert	Thornberry	01234567898	150	sr01	t001	(null)	sr02	vwright@obl.com	Victoria	Wright	01
3 c00001	bob.thornberry@heatmail.com	Robert	Thornberry	01234567898	150	sr01	t001	(null)	sr03	bspeed@obl.com	Barry	Speed	01
4 c00012	Jjones@freemail.com	Jennifer	Jones	01505214598	0	(null)	(null)	lc1015	sr01	chray@obl.com	Charles	Raymond	01
5 c00012	Jjones@freemail.com	Jennifer	Jones	01505214598	0	(null)	(null)	lc1015	sr02	vwright@obl.com	Victoria	Wright	01
6 c00012	Jjones@freemail.com	Jennifer	Jones	01505214598	0	(null)	(null)	lc1015	sr03	bspeed@obl.com	Barry	Speed	01
7 c00101	unknown@here.com	John	Doe	03216547808	987.5	sr01	t002	(null)	sr01	chray@obl.com	Charles	Raymond	01
8 c00101	unknown@here.com	John	Doe	03216547808	987.5	sr01	t002	(null)	sr02	vwright@obl.com	Victoria	Wright	01
9 c00101	unknown@here.com	John	Doe	03216547808	987.5	sr01	t002	(null)	sr03	bspeed@obl.com	Barry	Speed	01
10 c00103	MurciaA@globaltech.com	Andrew	Murcia	07715246890	85	(null)	(null)	lc2341	sr01	chray@obl.com	Charles	Raymond	01
11 c00103	MurciaA@globaltech.com	Andrew	Murcia	07715246890	85	(null)	(null)	lc2341	sr02	vwright@obl.com	Victoria	Wright	01
12 c00103	MurciaA@globaltech.com	Andrew	Murcia	07715246890	85	(null)	(null)	lc2341	sr03	bspeed@obl.com	Barry	Speed	01
13 c01986	margal87@delphiview.com	Maria	Galant	01442736589	125.65	sr03	t003	(null)	sr01	chray@obl.com	Charles	Raymond	01
14 c01986	margal87@delphiview.com	Maria	Galant	01442736589	125.65	sr03	t003	(null)	sr02	vwright@obl.com	Victoria	Wright	01
15 c01986	margal87@delphiview.com	Maria	Galant	01442736589	125.65	sr03	t003	(null)	sr03	bspeed@obl.com	Barry	Speed	01
16 c02001	brianrog@hootech.com	Brian	Rogers	01654564898	50	(null)	(null)	lc4587	sr01	chray@obl.com	Charles	Raymond	01
17 c02001	brianrog@hootech.com	Brian	Rogers	01654564898	50	(null)	(null)	lc4587	sr02	vwright@obl.com	Victoria	Wright	01
18 c02001	brianrog@hootech.com	Brian	Rogers	01654564898	50	(null)	(null)	lc4587	sr03	bspeed@obl.com	Barry	Speed	01