

⇒ Database

⇒ SQL-4

⇒ Md. Faridul Islam

⇒ A20EC4030

⇒ SEC: 06

⇒ Dr. Izyan Izzati

## Section

### Lesson 9 Exercise - 1

#### Part - 1

1) `SELECT * FROM sales_representative NATURAL JOIN sales_rep_address;`

2) `SELECT id, first_name, last_name, address_line_1, address_line_2, city, email, phone_number FROM sales_representative NATURAL JOIN sales_rep_address;`

#### Part - 2

1) `SELECT id, first_name, last_name, address_line_1, address_line_2, city, email, phone_number, FROM sales_representative JOIN sales_rep_address USING (id);`

```
1 SELECT id, first_name, last_name, address_line_1, address_line_2, city, email, phone_number
2 FROM sales_representatives JOIN sales_rep_addresses
3 USING (id);
```

Results Explain Describe Saved SQL History

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



(2) select \*

from items join price\_history  
using (itm\_number);

```

1 SELECT *
2 FROM items JOIN price_history
3 USING (itm_number);

```

ITEM_NUMBER	NAME	DESCRIPTION	CATEGORY	COLOR	Size	ILT_ID	START_DATE	START_TIME	PRICE	END_DATE	END_TIME
im01101044	gloves	catcher mitt	clothing	brown	m	il010230124	06/17/2017	06/17/2016	4.99	-	-
im01101045	under shirt	top worn under the game top	clothing	white	s	il010230125	11/25/2016	11/25/2016	14.99	01/25/2017	01/25/2017
im01101045	under shirt	top worn under the game top	clothing	white	s	il010230125	01/25/2017	01/25/2017	8.99	01/25/2017	01/25/2017
im01101045	under shirt	top worn under the game top	clothing	white	s	il010230125	01/26/2017	01/26/2017	15.99	-	-
im01101046	socks	team socks with emblem	clothing	range	l	il010230126	02/12/2017	02/12/2017	7.99	-	-
im01101047	game top	team shirt with emblem	clothing	range	m	il010230127	04/25/2017	04/25/2017	24.99	-	-

Part

Part - 2 :

1) select c.ctr\_number, c.first\_name, c.last\_name,  
c.phone\_number, c.email, id, s.first\_name, s.last\_  
name, s.email from customers c join sales\_  
representative s  
on (s.id = c.sre\_id)

```

1 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
2 FROM customers c JOIN sales_representatives s
3 ON (c.sre_id=s.id);

```

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

## Part - 4

1)

```
SELECT c.ctr_number, c.first_name AS "CTR_FIRST_NAME",  
       c.last_name AS "CTR_LAST_NAME", c.phone_number AS  
       "CTR_PHONE_NUMBER", c.email AS "CTR_EMAIL",  
       s.id, s.first_name AS "SALES_FIRST_NAME", c.last_name  
       AS "SALES_LAST_NAME", s.email AS "SALES_EMAIL",  
       t.name AS "TEAM NAME" FROM customers c JOIN  
       sales_representatives s ON  
       ON (c.sre_id = s.id)  
       JOIN teams t  
       ON (c.tem_id = t.id);
```

```
1 SELECT c.ctr_number, c.first_name AS "CTR_FIRST_NAME", c.last_name AS "CTR_LAST_NAME", c.phone_number AS "CTR_PHONE_NUMBER", c.email AS "CTR_EMAIL", s.id,  
2 s.first_name AS "SALES_FIRST_NAME", s.last_name AS "SALES_LAST_NAME", s.email AS "SALES_EMAIL", t.name AS "TEAM NAME"  
3 FROM customers c JOIN sales_representatives s  
4 ON (c.sre_id=s.id)  
5 JOIN teams t  
6 ON (c.tem_id=t.id)
```

Results Explain Describe Saved SQL History

CTR_NUMBER	CTR_FIRST_NAME	CTR_LAST_NAME	CTR_PHONE_NUMBER	CTR_EMAIL	ID	SALES_FIRST_NAME	SALES_LAST_NAME	SALES_EMAIL	TEAM NAME
c00001	Robert	Thornberry	01234567898	bob.thornberry@heatmail.com	sr01	Charles	Raymond	chray@obl.com	Rockets
c00101	John	Doe	03216547808	unknown@here.com	sr01	Charles	Raymond	chray@obl.com	Celtics
c01986	Maria	Galarit	01442736589	margal87@delphiview.com	sr03	Barry	Speed	bspeed@obl.com	Rovers

(9)



## Part-5

(1)

```
SELECT ctr_number, c.first_name, c.last_name, c.phone_number,  
c_email, s.id, s.first_name, s.last_name, s_email, t.name  
"Team Name"
```

```
FROM customers c JOIN sales_representative s  
ON (s.id = s.sre_id)
```

```
JOIN teams t
```

```
ON (t.id = c.tem_id)
```

```
WHERE c.ctr_number = 'c00001';
```

```
1 SELECT c.ctr_number, c.first_name AS "CTR_FIRST_NAME", c.last_name AS "CTR_LAST_NAME", c.phone_number AS "CTR_PHONE_NUMBER", c_email AS "CTR_EMAIL", s.id,  
2 s.first_name AS "SALES_FIRST_NAME", s.last_name AS "SALES_LAST_NAME", s_email AS "SALES_EMAIL", t.name AS "TEAM NAME"  
3 FROM customers c JOIN sales_representatives s  
4 ON (c.sre_id=s.id)  
5 JOIN teams t  
6 ON (c.tem_id=t.id)  
7 WHERE c.ctr_number='c00001';
```

Results Explain Describe Saved SQL History

CTR_NUMBER	CTR_FIRST_NAME	CTR_LAST_NAME	CTR_PHONE_NUMBER	CTR_EMAIL	ID	SALES_FIRST_NAME	SALES_LAST_NAME	SALES_EMAIL	TEAM NAME
c00001	Robert	Thornberry	01234567898	bob.thornberry@heatmail.com	sr01	Charles	Raymond	chray@obl.com	Rockets

(5)

## part-6

1)

SELECT 'The cost of the ' || i.name || ' on this day was '

|| p.price AS "Item Details"

FROM items i JOIN price\_history p

ON ('12/12/2016' BETWEEN p.start\_date AND p.end\_date)

AND ( i.item\_number = 'im01101045' );

```
1 SELECT 'The cost of the ' || i.name || ' on this day was ' || p.price AS "Price Cost"
2 FROM items i JOIN price_history p
3 ON (i.item_number=p.item_number)
4 WHERE i.item_number = 'im01101045'
5 AND (TO_DATE ('16-Dec-2016', 'DD-MM-YYYY') BETWEEN p.start_date AND p.end_date);
```

Results Explain Describe Saved SQL History

Price Cost

The cost of the under shirt on this day was 14.99



## Lesson - 6 - Exercise - 2

### Part - 1

```
SELECT r.first_name || ' ' || r.last_name AS "Rep",  
       s.first_name || ' ' || s.last_name AS "Supervisor"  
FROM sales_representatives r JOIN sales_representatives s  
ON (r.supervisor_id = s.id)
```

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

Results Explain Describe Saved SQL History

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

Part-2

(1) SELECT \*

FROM teams t LEFT OUTER JOIN customers c  
ON (t.id = c.tem\_id);

```
1 SELECT *
2 FROM teams t LEFT OUTER JOIN customers c
3 ON (t.id=c.tem_id);
4
```

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
-	-	-	-	c02001	brianrog@hooitech.com	Brian	Rogers	01654564898	50	-	-	lc4587
1001	Rockets	25	10	c00001	bob.thornberry@heatmail.com	Robert	Thornberry	01234567898	150	sr01	1001	-
-	-	-	-	c00012	Jjones@freemail.com	Jennifer	Jones	01505214598	0	-	-	lc1015
1002	Celtics	42	20	c00101	unknown@here.com	John	Doe	05216547808	987.5	sr01	1002	-
-	-	-	-	c00103	MurciaA@globaltech.com	Andrew	Murcia	07715246890	85	-	-	lc2341
1003	Rovers	8	-	c01986	margal87@delphiview.com	Maria	Galant	01442736589	125.65	sr03	1003	-

Part-3

(1) SELECT \*

FROM customers CROSS JOIN sales\_representatives ;

```
1 SELECT *
2 FROM customers
3 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_NAME	PHONE_NUMBER	COMMISSION_RATE	SUPERVISOR_ID
c02001	brianrog@hooitech.com	Brian	Rogers	01654564898	50	-	-	lc4587	sr01	chray@dbi.com	Charles	Raymond	0134518781	10	sr01
c00001	bob.thornberry@heatmail.com	Robert	Thornberry	01234567898	150	sr01	1001	-	sr01	chray@dbi.com	Charles	Raymond	0134518781	10	sr01
c00012	Jjones@freemail.com	Jennifer	Jones	01505214598	0	-	-	lc1015	sr01	chray@dbi.com	Charles	Raymond	0134518781	10	sr01
c00101	unknown@here.com	John	Doe	05216547808	987.5	sr01	1002	-	sr01	chray@dbi.com	Charles	Raymond	0134518781	10	sr01
c00103	MurciaA@globaltech.com	Andrew	Murcia	07715246890	85	-	-	lc2341	sr01	chray@dbi.com	Charles	Raymond	0134518781	10	sr01
c01986	margal87@delphiview.com	Maria	Galant	01442736589	125.65	sr03	1003	-	sr01	chray@dbi.com	Charles	Raymond	0134518781	10	sr01
c02001	brianrog@hooitech.com	Brian	Rogers	01654564898	50	-	-	lc4587	sr02	vwrigh@dbi.com	Victoria	Wright	0134518782	5	sr01
c00001	bob.thornberry@heatmail.com	Robert	Thornberry	01234567898	150	sr01	1001	-	sr02	vwrigh@dbi.com	Victoria	Wright	0134518782	5	sr01
c00012	Jjones@freemail.com	Jennifer	Jones	01505214598	0	-	-	lc1015	sr02	vwrigh@dbi.com	Victoria	Wright	0134518782	5	sr01
c00101	unknown@here.com	John	Doe	05216547808	987.5	sr01	1002	-	sr02	vwrigh@dbi.com	Victoria	Wright	0134518782	5	sr01
c00103	MurciaA@globaltech.com	Andrew	Murcia	07715246890	85	-	-	lc2341	sr02	vwrigh@dbi.com	Victoria	Wright	0134518782	5	sr01
c01986	margal87@delphiview.com	Maria	Galant	01442736589	125.65	sr03	1003	-	sr02	vwrigh@dbi.com	Victoria	Wright	0134518782	5	sr01