



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

SESSION 2023/20204 SEMESTER 1

SECD2523
DATABASE

LAB EXERCISE: SQL DML 3

LECTURER NAME:
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SECTION:
10

NAME:
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MATRIC NO:
A22EC0196

PART 1:

1.

```
1 SELECT *
2 FROM sales_representatives
3 NATURAL JOIN sales_rep_addresses;
4
```

Results

Explain

Describe

Saved SQL

History

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

3 rows returned in 0.04 seconds

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2.

```
1 SELECT
2   sr.id AS "ID",
3   sr.first_name AS "First Name",
4   sr.last_name AS "Last Name",
5   sra.address_line_1 AS "Address Line 1",
6   sra.address_line_2 AS "Address Line 2",
7   sra.city AS "City",
8   sr.email AS "Email",
9   sr.phone_number AS "Phone Number"
10 FROM
11   sales_representatives sr
12 JOIN
13   sales_rep_addresses sra ON sr.id = sra.id;
14
```

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 |

3 rows returned in 0.01 seconds

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PART 2:

1.

```
1 SELECT
2   sr.id AS "ID",
3   sr.first_name AS "First Name",
4   sr.last_name AS "Last Name",
5   sra.address_line_1 AS "Address Line 1",
6   sra.address_line_2 AS "Address Line 2",
7   sra.city AS "City",
8   sr.email AS "Email",
9   sr.phone_number AS "Phone Number"
10  FROM
11   sales_representatives sr
12  JOIN
13   sales_rep_addresses sra ON sr.id = sra.id;
```

| 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.

```
1  SELECT
2      i.itm_number AS "Item Number",
3      i.name AS "Item Name",
4      i.description AS "Description",
5      i.category AS "Category",
6      i.color AS "Color",
7      i."Size" AS "Size",
8      ph.start_date AS "Start Date",
9      TO_CHAR(ph.start_time, 'HH24:MI:SS') AS "Start Time",
10     ph.price AS "Price",
11     ph.end_date AS "End Date",
12     TO_CHAR(ph.end_time, 'HH24:MI:SS') AS "End Time"
13  FROM
14     items i
15  JOIN
16     price_history ph ON i.itm_number = ph.itm_number;
```

| Item Number | Item Name | Description | Category | Color | Size | Start Date | Start Time | Price | End Date | End Time |
|-------------|-------------|-----------------------------|-----------|-------|------|------------|------------|-------|------------|----------|
| im01101044 | gloves | catcher mitt | clothing | brown | m | 06/17/2017 | 09:00:00 | 4.99 | - | - |
| im01101045 | under shirt | top worn under the game top | clothing | white | s | 11/25/2016 | 09:00:00 | 14.99 | 01/25/2017 | 17:00:00 |
| im01101045 | under shirt | top worn under the game top | clothing | white | s | 01/25/2017 | 17:01:00 | 8.99 | 01/25/2017 | 19:00:00 |
| im01101045 | under shirt | top worn under the game top | clothing | white | s | 01/26/2017 | 09:00:00 | 15.99 | - | - |
| im01101046 | socks | team socks with emblem | clothing | range | l | 02/12/2017 | 12:30:00 | 7.99 | - | - |
| im01101047 | game top | team shirt with emblem | clothing | range | m | 04/25/2017 | 10:10:10 | 24.99 | - | - |
| im01101048 | premium bat | high quality baseball bat | equipment | - | - | 05/31/2017 | 16:35:30 | 149 | 12/09/2023 | 18:01:31 |
| im01101048 | premium bat | high quality baseball bat | equipment | - | - | 12/09/2023 | 18:04:19 | 99.99 | - | - |

PART 3

1.

```
1  SELECT
2      c.ctr_number AS "Customer Number",
3      c.first_name AS "Customer First Name",
4      c.last_name AS "Customer Last Name",
5      c.phone_number AS "Customer Phone Number",
6      c.email AS "Customer Email",
7      sr.id AS "Sales Representative ID",
8      sr.first_name AS "Sales Representative First Name",
9      sr.last_name AS "Sales Representative Last Name",
10     sr.email AS "Sales Representative Email"
11 FROM
12     customers c
13 JOIN
14     sales_representatives sr ON c.sre_id = sr.id;
```

| Customer Number | Customer First Name | Customer Last Name | Customer Phone Number | Customer Email | Sales Representative ID | Sales Representative First Name | Sales Representative Last Name | Sales Representative 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 |

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

PART 4

1.

```
1  SELECT
2      c.ctr_number AS "Customer Number",
3      c.first_name AS "Customer First Name",
4      c.last_name AS "Customer Last Name",
5      c.phone_number AS "Customer Phone Number",
6      c.email AS "Customer Email",
7      sr.id AS "Sales Representative ID",
8      sr.first_name AS "Sales Representative First Name",
9      sr.last_name AS "Sales Representative Last Name",
10     sr.email AS "Sales Representative Email",
11     t.name AS "Team Name"
12 FROM
13     customers c
14 JOIN
15     sales_representatives sr ON c.sre_id = sr.id
16 JOIN
17     teams t ON c.tem_id = t.id;
```

| Customer Number | Customer First Name | Customer Last Name | Customer Phone Number | Customer Email | Sales Representative ID | Sales Representative First Name | Sales Representative Last Name | Sales Representative 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 | Galant | 01442736589 | margal87@delphiview.com | sr03 | Barry | Speed | bspeed@obl.com | Rovers |

3 rows returned in 0.04 seconds [Download](#)

PART 5

1.

```
1  SELECT
2      c.ctr_number AS "Customer Number",
3      c.first_name AS "Customer First Name",
4      c.last_name AS "Customer Last Name",
5      c.phone_number AS "Customer Phone Number",
6      c.email AS "Customer Email",
7      sr.id AS "Sales Representative ID",
8      sr.first_name AS "Sales Representative First Name",
9      sr.last_name AS "Sales Representative Last Name",
10     sr.email AS "Sales Representative Email",
11     t.name AS "Team Name"
12 FROM
13     customers c
14 JOIN
15     sales_representatives sr ON c.sre_id = sr.id
16 JOIN
17     teams t ON c.tem_id = t.id
18 WHERE
19     c.ctr_number = 'c00001';
20
```

| Customer Number | Customer First Name | Customer Last Name | Customer Phone Number | Customer Email | Sales Representative ID | Sales Representative First Name | Sales Representative Last Name | Sales Representative Email | Team Name |
|-----------------|---------------------|--------------------|-----------------------|-----------------------------|-------------------------|---------------------------------|--------------------------------|----------------------------|-----------|
| c00001 | Robert | Thornberry | 01234567898 | bob.thornberry@heatmail.com | sr01 | Charles | Raymond | chray@obl.com | Rockets |

PART 6

1.

```
1  SELECT
2      'The cost of the ' || i.name || ' on this day was ' || ph.price AS "Result"
3  FROM
4      items i
5  JOIN
6      price_history ph ON i.itm_number = ph.itm_number
7  WHERE
8      i.itm_number = 'im01101045'
9      AND TO_DATE('2016-12-12', 'YYYY-MM-DD') BETWEEN ph.start_date AND ph.end_date;
10
```

Results Explain Describe Saved SQL History

Result

The cost of the under shirt on this day was 14.99

1 rows returned in 0.01 seconds Download

PART 2

PART 1:

1.

```
1 SELECT
2   rep.first_name || ' ' || rep.last_name AS "Rep",
3   sup.first_name || ' ' || sup.last_name AS "Supervisor"
4 FROM
5   sales_representatives rep
6 LEFT JOIN
7   sales_representatives sup ON rep.supervisor_id = sup.id;
8
```

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

3 rows returned in 0.01 seconds [Download](#)

PART 2:

1.

```
1 SELECT
2   t.id AS "Team ID",
3   t.name AS "Team Name",
4   t.number_of_players AS "Number of Players",
5   t.discount AS "Discount",
6   c.ctr_number AS "Customer Number",
7   c.first_name AS "Customer First Name",
8   c.last_name AS "Customer Last Name",
9   c.phone_number AS "Customer Phone Number",
10  c.email AS "Customer Email"
11 FROM
12   teams t
13 LEFT JOIN
14   customers c ON t.id = c.tem_id;
15
```

| Team ID | Team Name | Number of Players | Discount | Customer Number | Customer First Name | Customer Last Name | Customer Phone Number | Customer Email |
|---------|-----------|-------------------|----------|-----------------|---------------------|--------------------|-----------------------|-----------------------------|
| t001 | Rockets | 25 | 10 | c00001 | Robert | Thornberry | 01234567898 | bob.thornberry@heatmail.com |
| t002 | Celtics | 42 | 20 | c00101 | John | Doe | 03216547808 | unknown@here.com |
| t003 | Rovers | 8 | - | c01986 | Maria | Galant | 01442736589 | margal87@delphiview.com |
| t004 | Jets | 10 | 5 | - | - | - | - | - |

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PART 3:

1.

```

1  SELECT
2      c.ctr_number AS "Customer Number",
3      c.first_name AS "Customer First Name",
4      c.last_name AS "Customer Last Name",
5      c.phone_number AS "Customer Phone Number",
6      c.email AS "Customer Email",
7      sr.id AS "Sales Representative ID",
8      sr.first_name AS "Sales Representative First Name",
9      sr.last_name AS "Sales Representative Last Name",
10     sr.phone_number AS "Sales Representative Phone Number",
11     sr.email AS "Sales Representative Email"
12 FROM
13     customers c
14 CROSS JOIN
15     sales_representatives sr;
16

```

| Customer Number | Customer First Name | Customer Last Name | Customer Phone Number | Customer Email | Sales Representative ID | Sales Representative First Name | Sales Representative Last Name | Sales Representative Phone Number | Sales Representative Email |
|-----------------|---------------------|--------------------|-----------------------|-----------------------------|-------------------------|---------------------------------|--------------------------------|-----------------------------------|----------------------------|
| c00001 | Robert | Thornberry | 01234567898 | bob.thornberry@heatmail.com | sr01 | Charles | Raymond | 0134598761 | chray@obl.com |
| c00012 | Jennifer | Jones | 01505214598 | Jjones@freemail.com | sr01 | Charles | Raymond | 0134598761 | chray@obl.com |
| c00101 | John | Doe | 03216547808 | unknown@here.com | sr01 | Charles | Raymond | 0134598761 | chray@obl.com |
| c00103 | Andrew | Murcia | 07715246890 | MurciaA@globaltech.com | sr01 | Charles | Raymond | 0134598761 | chray@obl.com |
| c01986 | Maria | Galant | 01442736589 | margal87@delphiview.com | sr01 | Charles | Raymond | 0134598761 | chray@obl.com |
| c02001 | Brian | Rogers | 01654564898 | brianrog@hootech.com | sr01 | Charles | Raymond | 0134598761 | chray@obl.com |
| c00001 | Robert | Thornberry | 01234567898 | bob.thornberry@heatmail.com | sr02 | Victoria | Wright | 0134598762 | vwright@obl.com |
| c00012 | Jennifer | Jones | 01505214598 | Jjones@freemail.com | sr02 | Victoria | Wright | 0134598762 | vwright@obl.com |
| c00101 | John | Doe | 03216547808 | unknown@here.com | sr02 | Victoria | Wright | 0134598762 | vwright@obl.com |
| c00103 | Andrew | Murcia | 07715246890 | MurciaA@globaltech.com | sr02 | Victoria | Wright | 0134598762 | vwright@obl.com |

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