

# MUHAMMAD HAFIZ BIN KHAIRUL KAMAL

## A22BC0212

### SECTION 6

## SQL3 - DML2

### PART 1

#### Part 1

1.

```
SELECT *  
FROM customers
```

| CTR_NUMBER | EMAIL                       | FIRST_NAME | LAST_NAME  | PHONE_NUMBER | CURRENT_BALANCE | SRE_ID | TEM_ID | LOYALTY_CARD_NUMBER |
|------------|-----------------------------|------------|------------|--------------|-----------------|--------|--------|---------------------|
| c00001     | bob.thornberry@heatmail.com | Robert     | Thornberry | 01234567898  | 150             | sr01   | t001   | -                   |
| c00012     | ljones@freemail.com         | Jennifer   | Jones      | 01505214598  | 0               | -      | -      | 1c1015              |
| c00101     | unknown@here.com            | John       | Doe        | 03216547808  | 987.5           | sr01   | t002   | -                   |
| c00103     | MurciaA@globaltech.com      | Andrew     | Murcia     | 07715246890  | 85              | -      | -      | 1c2341              |
| c01986     | margal87@delphiview.com     | Maria      | Galant     | 01442736589  | 125.65          | sr03   | t003   | -                   |
| c02001     | brianrog@hooitech.com       | Brian      | Rogers     | 01654564898  | 50              | -      | -      | 1c4587              |

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6 rows selected.

2.

```
SELECT *  
FROM teams
```

| ID   | NAME    | NUMBER_OF_PLAYERS | DISCOUNT |
|------|---------|-------------------|----------|
| t001 | Rockets | 25                | 10       |
| t002 | Celtics | 42                | 20       |
| t003 | Rovers  | 8                 | -        |
| t004 | Jets    | 10                | 5        |

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4 rows selected.

3.

```
SELECT *
FROM items
```

| ITM_NUMBER | NAME        | DESCRIPTION                 | CATEGORY  | COLOR | Size | ILT_ID      |
|------------|-------------|-----------------------------|-----------|-------|------|-------------|
| im01101044 | gloves      | catcher mitt                | clothing  | brown | m    | i1010230124 |
| im01101045 | under shirt | top worn under the game top | clothing  | white | s    | i1010230125 |
| im01101046 | socks       | team socks with emblem      | clothing  | range | l    | i1010230126 |
| im01101047 | game top    | team shirt with emblem      | clothing  | range | m    | i1010230127 |
| im01101048 | premium bat | high quaiity baseball bat   | equipment | -     | -    | i1010230128 |

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5 rows selected.

## Part 2

1.

```
SELECT ctr_number, first_name, last_name, email, phone_number
FROM customers
```

| CTR_NUMBER | FIRST_NAME | LAST_NAME  | EMAIL                       | PHONE_NUMBER |
|------------|------------|------------|-----------------------------|--------------|
| c00001     | Robert     | Thornberry | bob.thornberry@heatmail.com | 01234567898  |
| c00012     | Jennifer   | Jones      | Jjones@freemail.com         | 01505214598  |
| c00101     | John       | Doe        | unknown@here.com            | 03216547808  |
| c00103     | Andrew     | Murcia     | MurciaA@globaltech.com      | 07715246890  |
| c01986     | Maria      | Galant     | margal87@delphiview.com     | 01442736589  |
| c02001     | Brian      | Rogers     | brianrog@shootch.com        | 01654564898  |

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6 rows selected.

2.

```
SELECT name, number_of_players
FROM teams
```

| NAME    | NUMBER_OF_PLAYERS |
|---------|-------------------|
| Rockets | 25                |
| Celtics | 42                |
| Rovers  | 8                 |
| Jets    | 10                |

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4 rows selected.

```
SELECT name, description, category
FROM items
```

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5 rows selected.

```
SELECT first_name, last_name, current_balance, current_balance/12
FROM customers
```

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6 rows selected.

```
SELECT first_name, last_name, ctr_number, current_balance, current_balance-5
FROM customers
```

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```
6 rows selected.
```

## Part 2

```
SELECT first_name "First Name", last_name "Last Name", current_balance "Balance", current_balance/12 "Monthly Repayments"
FROM customers
```

[illegible][Download CSV](#)

6 rows selected.

### Part 3

```
SELECT 'The '||name||' team has '||number_of_players||' players and receives a discount of '||discount||' percent.' AS "Team Information"
FROM teams
```

| Team Information                                                       |
|------------------------------------------------------------------------|
| The Rockets team has 25 players and receives a discount of 10 percent. |
| The Celtics team has 42 players and receives a discount of 20 percent. |
| The Rovers team has 8 players and receives a discount of percent.      |
| The Jets team has 10 players and receives a discount of 5 percent.     |

[Download CSV](#)

4 rows selected.

2. Because it has a NULL value

# PART 3

## Part 1

1.

```
SELECT *  
FROM customers  
WHERE ctr_number = 'c01986'
```

| 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   | -                   |

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2.

```
SELECT first_name "First Name", last_name "Last Name", ctr_number "Customer Number"  
FROM customers  
WHERE current_balance >100
```

| First Name | Last Name  | Customer Number |
|------------|------------|-----------------|
| Robert     | Thornberry | c00001          |
| John       | Doe        | c00101          |
| Maria      | Galant     | c01986          |

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3 rows selected.

3.

```
SELECT id "Order ID", odr_date "Date", odr_time "Time"  
FROM orders  
WHERE odr_date < '28-May-2019'
```

| Order ID  | Date      | Time      |
|-----------|-----------|-----------|
| or0101250 | 17-APR-17 | 17-APR-17 |
| or0101350 | 24-MAY-17 | 24-MAY-17 |
| or0101425 | 28-MAY-17 | 28-MAY-17 |
| or0101681 | 02-JUN-17 | 02-JUN-17 |
| or0101750 | 18-JUN-17 | 18-JUN-17 |

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5 rows selected.

## Part 2

```
SELECT id "Inventory ID", cost "Cost", units "Number of units"
FROM inventory_list
WHERE cost BETWEEN 3.00 AND 15.00
```

| Inventory ID | Cost | Number of units |
|--------------|------|-----------------|
| i1010230125  | 7.99 | 250             |
| i1010230126  | 5.24 | 87              |

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2 rows selected.

## Part 3

```
SELECT id "Inventory ID", cost "Cost", units "Number of units"
FROM inventory_list
WHERE units IN(50,100,150,200)
```

| Inventory ID | Cost | Number of units |
|--------------|------|-----------------|
| i1010230124  | 2.5  | 100             |

[Download CSV](#)

## Part 4

```
SELECT id "Inventory ID", cost "Cost", units "Number of units"
FROM inventory_list
WHERE units NOT IN (50,100,150,200)
```

| Inventory ID | Cost  | Number of units |
|--------------|-------|-----------------|
| i1010230125  | 7.99  | 250             |
| i1010230126  | 5.24  | 87              |
| i1010230127  | 18.95 | 65              |
| i1010230128  | 97.46 | 8               |

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4 rows selected.

## Part 5

```
SELECT itm_number "Item Number", name "Item Name"
FROM items
WHERE name LIKE 'g%'
```

| Item Number | Item Name |
|-------------|-----------|
| im01101044  | gloves    |
| im01101047  | game top  |

Download CSV

2 rows selected.

## Part 6

```
SELECT itm_number "Item Number", name "Item Name"
FROM items
WHERE name LIKE '%o%'
```

| Item Number | Item Name |
|-------------|-----------|
| im01101044  | gloves    |
| im01101046  | socks     |
| im01101047  | game top  |

Download CSV

3 rows selected.

## PART 4

### Part 1

1.

```
SELECT 'The '||name||' team has '||number_of_players||' players and does not receive a discount.' AS "Team Information"
FROM teams
WHERE discount IS NULL
```

#### Team Information

The Rovers team has 8 players and does not receive a discount.

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2.

```
SELECT 'The '||name||' team has '||number_of_players||' players and receives a discount of '||discount||' percent.' AS "Team Information"
FROM teams
WHERE discount IS NOT NULL
```

#### Team Information

The Rockets team has 25 players and receives a discount of 10 percent.

The Celtics team has 42 players and receives a discount of 20 percent.

The Jets team has 10 players and receives a discount of 5 percent.

Download CSV

3 rows selected.

## Part 2

```
SELECT ctr_number "Customer Number", Address_line_1 "Street Address", zip_code "Postal Code"
FROM customers_addresses
WHERE city = 'Liverpool' AND address_line_2 = 'Starford'
```

| Customer Number | Street Address     | Postal Code |
|-----------------|--------------------|-------------|
| c00001          | 17 Gartsquare Road | LP89JHK     |

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## Part 3

```
SELECT ctr_number "Customer Number", Address_line_1 "Street Address", zip_code "Postal Code"
FROM customers_addresses
WHERE city = 'Liverpool' OR address_line_2 = 'Starford'
```

| Customer Number | Street Address     | Postal Code |
|-----------------|--------------------|-------------|
| c00001          | 17 Gartsquare Road | LP89JHK     |
| c00001          | 63 Acacia Drive    | LP83JHR     |

Download CSV

2 rows selected.

## Part 4

```
SELECT ctr_number "Customer Number", Address_line_1 "Street Address", zip_code "Postal Code"
FROM customers_addresses
WHERE city NOT IN 'Liverpool'
```

| Customer Number | Street Address       | Postal Code |
|-----------------|----------------------|-------------|
| c00101          | 54 Ropehill Crescent | ST45AGV     |
| c01986          | 36 Watercress Lane   | JP23YTH     |

Download CSV

2 rows selected.



## PART 5

1. 

```
SELECT name "Team Name", number_of_players "Number of Players"
FROM teams
ORDER BY name
```

| Team Name | Number of Players |
|-----------|-------------------|
| Celtics   | 42                |
| Jets      | 10                |
| Rockets   | 25                |
| Rovers    | 8                 |

Download CSV

4 rows selected.

2.

```
SELECT name "Team Name", number_of_players "Number of Players"
FROM teams
ORDER BY number_of_players DESC
```

| Team Name | Number of Players |
|-----------|-------------------|
| Celtics   | 42                |
| Rockets   | 25                |
| Jets      | 10                |
| Rovers    | 8                 |

Download CSV

4 rows selected.

3.

```
1. SELECT name "Team Name", number_of_players "Players"
2. FROM teams
3. ORDER BY name;
4.
5. SELECT name "Team Name", number_of_players "Players"
6. FROM teams
7. ORDER BY "Team Name" DESC;
```

| Team Name | Players |
|-----------|---------|
| Celtics   | 42      |
| Jets      | 10      |
| Rockets   | 25      |
| Rovers    | 8       |

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4 rows selected.

| Team Name | Players |
|-----------|---------|
| Rovers    | 8       |
| Rockets   | 25      |
| Jets      | 10      |
| Celtics   | 42      |

Download CSV

4 rows selected.

## PART 6

### Part 1

```
SELECT ROWNUM As "Oldest Customer",  
       first_name || ' ' || last_name AS "Customer Name"  
FROM  
  (SELECT first_name, last_name  
   FROM customers  
   ORDER BY ctr_number)  
WHERE ROWNUM <= 3
```

| Oldest Customer | Customer Name     |
|-----------------|-------------------|
| 1               | Robert Thornberry |
| 2               | Jennifer Jones    |
| 3               | John Doe          |

Download CSV

3 rows selected.

### Part 2

I GAVE UP

```
1 v SELECT first_name "First Name", last_name "Last Name"  
2 FROM sales_representatives  
3 WHERE commission_rate = :comm_rate  
4 ORDER BY last_name;  
5  
6
```

ORA-01008: not all variables bound

More Details: <https://docs.oracle.com/error-help/db/ora-01008>