

DML PART I

Retrieving Data Using SELECT

Part 1 : Retrieving all columns from a table

1. `SELECT * FROM customers;`
2. `SELECT * FROM teams;`
3. `SELECT * FROM items;`



Live SQL

Feedback

Help

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SQL Worksheet

Clear

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```
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	Jjones@freemail.com	Jennifer	Jones	01505214598	0	-	-	lc1015
c00101	unknown@here.com	John	Doe	03216547808	987.5	sr01	t002	-
c00103	MurciaA@globaltech.com	Andrew	Murcia	07715246890	85	-	-	lc2341
c01986	margal87@delphiview.com	Maria	Galant	01442736589	125.65	sr03	t003	-

SQL Worksheet

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```
1 select * from teams  
2  
3
```

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

SQL Worksheet

Clear

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Save

```
1 select * from items  
2  
3
```

ITM_NUMBER	NAME	DESCRIPTION	CATEGORY	COLOR	Size	ILT_ID
im01101044	gloves	catcher mitt	clothing	brown	m	il010230124
im01101045	under shirt	top worn under the game top	clothing	white	s	il010230125
im01101046	socks	team socks with emblem	clothing	range	l	il010230126
im01101047	game top	team shirt with emblem	clothing	range	m	il010230127
im01101048	premium bat	high quality baseball bat	equipment	-	-	il010230128

Part 2: Selecting Specific Columns

```
1 - SELECT customer_number, first_name, last_name, email, phone_number  
FROM customers;
```

SQL Worksheet

Clear

Find

Actions ▾

Save

```
1 v select ctr_number,first_name,last_name,email,phone_number  
2   from customers;  
3  
4  
5
```

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

2) SELECT name, number of players
FROM teams;

SQL Worksheet

```
1 ✓ select name,number_of_players  
2   from teams;  
3  
4  
5
```

NAME	NUMBER_OF_PLAYERS
Rockets	25
Celtics	42
Rovers	8

3. SELECT name, description, category
FROM items ;

SQL Worksheet

```
1 ✓ select name,description,category  
2   from items;  
3  
4  
5
```

NAME	DESCRIPTION	CATEGORY
gloves	catcher mitt	clothing
under shirt	top worn under the game top	clothing
socks	team socks with emblem	clothing
game top	team shirt with emblem	clothing
premium bat	high quality baseball bat	equipment

EXERCISE 2

Part 1 : Using Arithmetic Operators.

1. SELECT first_name, last_name, current_balance, current_balance/12
FROM customers;

SQL Worksheet

 Clear

```
1 v select first_name, last_name, current_balance, current_balance/12  
2   from customers;  
3
```

3. SELECT first_name, last_name, credit_number, current_balance, current_balance - 5.00
FROM customers;

SQL Worksheet

```
1 v SELECT first_name, last_name, ctr_number, current_balance,  
2 current_balance-5  
3 FROM customers;
```

FIRST_NAME	LAST_NAME	CTR_NUMBER	CURRENT_BALANCE	CURRENT_BALANCE-5
Robert	Thornberry	c00001	150	145
Jennifer	Jones	c00012	0	-5
John	Doe	c00101	987.5	982.5
Andrew	Murcia	c00103	85	80
Maria	Galant	c01986	125.65	120.65

3. The problem is if current balance⁽¹⁾ is 0 it will ^{*}be negative
5 after subtracting 5. (c 00012)

No.: 471

Date:

Part 2 = Using Column Aliases

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

SQL Worksheet

 Clear

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

Part 3

1. SELECT 'The' || ' name || 'team has' || player_num || 'players and receives
a discount of' || discount || 'percent' AS "Team Information"
FROM teams;
2. For Fovers team has NULL value of discount

SQL Worksheet

 Clear

```
1 v SELECT 'The ' || name || ' team has ' || number_of_players ||
2   ' players and receives a discount of ' || discount || ' percent.' AS "Team Information"
3   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.

DML 2 - PART 3

Exercise 1

PART 1

1. `SELECT * FROM customers
WHERE atr_number = 'C01986';`

SQL Worksheet

Clear

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Actions ▾

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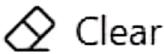
```
1 v SELECT * FROM customers  
2   WHERE ctr_number = 'c01986';  
3
```

CTR_NUMBER	EMAIL	FIRST_NAME	LAST_NAME	PHONE_NUMBER	CURRENT_BALANCE	SRE_ID	TEM_ID	LOYALTY_CARD_NUM
c01986	margal87@delphiview.com	Maria	Galant	01442736589	125.65	sr03	t003	-

[Download CSV](#)

2. SELECT first_name "First Name", last_name "Last. Name", ctr_number "Customer number"
FROM customers
WHERE current_balance > 100;

SQL Worksheet



```
1 v SELECT first_name "First Name", last_name "Last Name", ctr_number "Customer Number"  
2   FROM customers  
3 WHERE current_balance > 100;
```

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

3- SELECT id "Order ID", odr_date "Order Date", odr_time "Order Time"
FROM orders
WHERE odr_date < '28 - MAY - 2019';

SQL Worksheet

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

Order ID	Order Date	Order 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

PART 2

1. SELECT id, "Inventory ID", cost, "Cost", units, "Number of units"
FROM inventory-list
WHERE cost BETWEEN 3.00 AND 15.00 ;

SQL Worksheet

```
v SELECT id "Inventory ID", cost "Cost", units "Number of units"  
: FROM inventory_list  
: WHERE cost BETWEEN 3 AND 15;
```

Inventory ID	Cost	Number of units
il010230125	7.99	250
il010230126	5.24	87

PART 3

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

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SQL Worksheet

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

Inventory ID	Cost	Number of units
--------------	------	-----------------

il010230124	2.5	100
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No.:

Date:

PART 4

1. SELECT id, "Inventory ID", cast("cast", units) "Number of units"
FROM inventory_1st
WHERE units NOT IN (50, 100, 150, 200);

SQL Worksheet

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

Inventory ID	Cost	Number of units
--------------	------	-----------------

il010230125	7.99	250
-------------	------	-----

il010230126	5.24	87
-------------	------	----

il010230127	18.95	65
-------------	-------	----

il010230128	97.46	8
-------------	-------	---

PART 5

1. SELECT itm_number "Item number", name "Item Name"
FROM items;
WHERE name LIKE 'g%';

SQL Worksheet

```
1 ✓ SELECT item_number "Item Number", name "Item Name"  
2   FROM items  
3 WHERE name LIKE 'g%';
```

Item Number	Item Name
im01101044	gloves
im01101047	game top

PART 6

1. SELECT item_number "Item number", name "Item Name"
FROM items
WHERE name LIKE '%%

SQL Worksheet

```
1 v SELECT item_number "Item Number", name "Item Name"  
2   FROM items  
3 WHERE name LIKE '%_o%';
```

Item Number	Item Name
-------------	-----------

im01101044	gloves
------------	--------

im01101046	socks
------------	-------

im01101047	game top
------------	----------

EXERCISE 2 OML - PART 4

1. PART 1

1. SELECT The name of team has number_of_players players and
AND the does not receive a discount AS "Team information"
FROM teams

2. WHERE discount IS NULL;

2. WHERE discount IS NOT NULL;

SQL Worksheet

```
1 v SELECT 'The ' || name || ' team has ' || number_of_players ||  
2   ' players and does not receive a discount.' AS "Team Information"  
3 FROM teams
```

Team Information

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

SQL Worksheet

```
1 v  SELECT 'The ' || name || ' team has ' || number_of_players ||  
2    ' players and does not receive a discount.' AS "Team Information"  
3  FROM teams  
4 WHERE discount IS NOT NULL;
```

Team Information

The Rockets team has 25 players and does not receive a discount.

The Celtics team has 42 players and does not receive a discount.

PART 2

1. SELECT col "Customer Number", address_line_1 "Street Address", zip_code "Postal Code"
FROM customers_addresses
WHERE address_line_1 = 'Stanford'
AND city = 'Liverpool';

```
1 v SELECT id "Customer Number", address_line_1 "Street Address", zip_code "Postal code"
2   FROM customers_addresses
3 WHERE address_line_2 = 'Starford'
4 AND city = 'Liverpool';
```

Customer Number	Street Address	Postal code
ca0102	17 Gartsquare Road	LP89JHK

No:

Date:

PART 3

1. `SELECT id "Customer Number", address-line-1 "Street Address", zip-code "Postal Code"
FROM customers_address
WHERE address-line-1 = 'Starbord'
OR city = 'Liverpool';`

SQL Worksheet

 Clear

```
1 v SELECT id "Customer Number", address_line_1 "Street Address", zip_code "Postal code"  
2   FROM customers_addresses  
3 WHERE address_line_1 = 'Starford'  
4 OR city = 'Liverpool';
```

Customer Number	Street Address	Postal code
ca0101	83 Barrhill Drive	LP79HJK
ca0102	17 Gartsquare Road	LP89JHK
ca0105	63 Acacia Drive	LP83JHR

PART 4

1. SELECT id "Customer Number", address like_1 "Street Address", zip_code "Postal code"
FROM customers_addresses
WHERE address NOT IN ('Liverpool');

SQL Worksheet

 Clear

```
1 v SELECT id "Customer Number", address_line_1 "Street Address", zip_code "Postal code"  
2 FROM customers_addresses  
3 WHERE city NOT IN ('Liverpool');  
4
```

Customer Number	Street Address	Postal code
ca0103	54 Ropehill Crescent	ST45AGV
ca0104	36 Watercress Lane	JP23YTH

DML 2 - PART 5

1. SELECT name "Team Name", number_of_players "Number of Players"
FROM teams
ORDER BY teams.name;

SQL Worksheet

```
1 ✓ sELECT name "Team Name", number_of_players "Number of Players"  
2   FROM teams  
3   ORDER BY name;  
4
```

Team Name	Number of Players
Celtics	42
Rockets	25
Rovers	8

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```
SELECT · team name "Team Name", number_of_players "Number of Players"
FROM "Teams"
ORDER BY number_of_player DESC ;
```

SQL Worksheet

```
1 ✓ SELECT name "Team Name", number_of_players "Number of Players"  
2   FROM teams  
3   ORDER BY number_of_players DESC;  
4
```

Team Name	Number of Players
Celtics	42
Rockets	25
Rovers	8

3- SELECT team_name "Team Name", number_of_player "Players"
FROM teams
ORDER BY "Team Name" DESC ;

SQL Worksheet

```
1 v SELECT name "Team Name", number_of_players "Players"  
2   FROM teams  
3 ORDER BY "Team Name" DESC;  
4
```

Team Name	Players
Rovers	8
Rockets	25
Celtics	42

DML PART 6

PART 1

```
1. SELECT ROWNUM AS "Highest Customer Number", first_name || ' ' || last_name AS  
    "Customer Name" FROM  
    (SELECT first_name, last_name  
     FROM customers)  
    ORDER BY ctr_number)  
    WHERE ROWNUM <= 3;
```

SQL Worksheet

Clear

Find

Actions ▾

```
1 v SELECT ROWNUM As "Higher Customer Number", first_name|| ' ' || last_name AS "Customer Name"
2   FROM
3 (SELECT first_name, last_name
4   FROM customers
5   ORDER BY ctr_number)
6 WHERE ROWNUM <= 3;
7
```

Higher Customer Number	Customer Name
1	Robert Thornberry
2	Jennifer Jones
3	John Doe

PART 2

11. SELECT first_name || ' ' || last_name AS "Sales Representatives"
FROM sales_reps
WHERE commission_rate = :commission_rate;
ORDER BY last_name;