

## DML 2 Part 1

Part 1 : Retrieving all columns from a table

1. SELECT \*

```
FROM customers;
```

CTR_NUMBER	EMAIL	FIRST_NAME	LAST_NAME	PHONE_NUMBER	CURRENT_BALANCE	SRE_ID	ITEM_ID	LOYALTY_CARD_NUMBER
c02001	brianrog@hootech.com	Brian	Rogers	01654564898	50	-	-	lc4587
c00001	bob.thornberry@hotmail.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	-

2. SELECT \*

```
FROM teams;
```

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

3. SELECT \*

```
FROM items;
```

ITEM_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 3 : Selecting specific column

```
1. SELECT first_name, last_name, email, phone_number  
FROM customers;
```

FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER
Robert	Thornberry	bob.thornberry@heatmail.com	01234567898
Jennifer	Jones	Jjones@freemail.com	01505214598
John	Doe	unknown@here.com	03216547808
Andrew	Murcia	MurciaA@globaltech.com	07715246890
Maria	Galant	margal87@delphiview.com	01442736589
Brian	Rogers	brianrog@hootech.com	01654564898

```
2. SELECT name, number_of_players  
FROM teams;
```

NAME	NUMBER_OF_PLAYERS
Jets	10
Rockets	25
Celtics	42
Rovers	8

```
3. SELECT name, description, category  
FROM items;
```

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 qualy basball bat	equipment

## ONLINE Part 3

### Part 1 : using arithmetic operators

```
1. SELECT first_name, last_name ,current_balance ,  
       current_balance * 12 AS monthly_payment  
FROM customer;
```

First Name	Last Name	Balance	Monthly Repayments
Brian	Rogers	50	4.16667
Robert	Thornberry	150	12.5
Jennifer	Jones	0	0
John	Doe	987.5	82.2916667
Andrew	Murcia	85	7.0833
Maria	Galant	125.65	10.470833

```
2. SELECT first_name, last_name ,ctr_number ,current_balance ,  
       current_balance - 5.00 AS adjusted_balance  
FROM customer
```

FIRST_NAME	LAST_NAME	CTR_NUMBER	CURRENT_BALANCE	ADJUSTED_BALANCE
Brian	Rogers	c02001	50	45
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. non-monetary transactions : if customer can use the gift card for something  
other than reducing their balance, it might impact  
financial reporting
```

### Part 3 : using column aliases

```
1. SELECT  
    first_name AS "First Name",  
    last_name AS "Last Name",  
    current_balance AS "Current Balance",  
    current_balance / 12 AS "Monthly repayments"  
  
FROM  
    customers
```

### Part 3 : using literal character strings

```
SELECT  
    'The' || name || 'team has' || number_of_players || 'players and receives a discount of'  
        || NVL(CEIL(discount), '0') || '%' AS "Team Information"  
FROM  
    teams
```

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

3. Data inconsistency: issue with the data for the last team

## DM13 Part 3

### Part 1 : Using the where clause

```
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	-

```
2) SELECT  
        first_name AS "First Name",  
        last_name AS "Last Name",  
        CTR_NUMBER AS "Customer Number"  
      FROM  
    customers  
     WHERE  
CURRENT_BALANCE > 100
```

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

3. SELECT

```
    id AS "Order ID",
    order_date AS "Date",
    order_time AS "Time"
FROM
    orders
WHERE
    order_date < TO_DATE('2019-05-28', 'YYYY-MM-DD')
```

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

Part 3 : Range Conditions

SELECT

```
    id AS "Inventory ID",
    cost AS "Cost",
    units AS "Number of Units"
FROM
    inventory_list
WHERE
    cost BETWEEN 5.00 AND 15.00
```

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

#### Part 3 : Membership Conditions

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

Inventory ID	Cost	Number of Units
il010230124	2.5	100

#### Part 4 : Membership Conditions

```
SELECT
    id AS "Inventory ID",
    cost AS "Cost",
    units AS "Number of Units"
FROM
    inventory_list
WHERE
    unit 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 6 : Pattern Matching

```
SELECT  
    item-number AS "Item Number",  
    name AS "Item Name"  
  
FROM  
    items  
  
WHERE  
    name like "g%".
```

Item Number	Item Name
im01101044	gloves
im01101047	game top

## Part 6 : Pattern Matching

```
SELECT  
    item-number AS "Item Number",  
    name AS "Item Name"  
  
FROM  
    items  
  
WHERE  
    name like "%o%".
```

Item Number	Item Name
im01101044	gloves
im01101046	socks
im01101047	game top

## 1) using the NULL conditions

1. SELECT

```

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

```

## Team Information

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

2. SELECT

```

name || 'team has ' || number_of_players || ' players and receive a discount of ' ||
|| NVL(CTE.discount,'0') || '%' AS "Team Information"
FROM
TEAMS
WHERE
discount IS NOT NULL

```

## Team Information

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

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

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

### Part 3 : Logical Operator

```
SELECT  
    civ-number AS "Customer Number"  
    address-line-1 AS "Street Address"  
    zip-code AS "Postal Code"  
FROM  
    customer_address  
WHERE  
    city = 'liverpool' AND address-line-1 like "%stardford"
```

### Part 3 : Logical Operator

```
SELECT  
    civ-number AS "Customer Number"  
    address-line-1 AS "Street Address"  
    zip-code AS "Postal Code"  
FROM  
    customer_address  
WHERE  
    city = 'liverpool' OR address-line-1 like "%stardford"
```

Customer Number	Street Address	Postal Code
c00001	83 Barrhill Drive	LP79HJK
c00001	17 Gartsquare Road	LP89JHK
c00001	63 Acacia Drive	LP83JHR

#### Part 4 : Logical Operator

```
SELECT  
    cust_number AS "Customer Number"  
    address_line_1 AS "Street Address"  
    zip_code AS "Postal Code"  
FROM  
    customer_address  
WHERE  
    city IS "Liverpool"
```

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

## DML & Part 5

1. SELECT  
    name AS "Team Name",  
    number\_of\_players AS "Number of players"  
FROM  
    Teams  
WHERE  
    "Team Name" ASC

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

2. SELECT  
    name AS "Team Name",  
    number\_of\_players AS "Number of players"  
FROM  
    Teams  
WHERE  
    "Number of players" DESC

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

```
3. SELECT  
    name AS "Team Name",  
    number_of_players AS "Number of players"  
FROM  
    teams  
WHERE  
    "Team Name" DESC
```

Team Name	Players
Rovers	8
Rockets	25
Jets	10
Celtics	42

## DMIS Part 6

### Part 1 : Top - N - Analysis

```
SELECT  
    Rownum AS "Oldest Customer Number", first_name || ' ' || last_name AS "Customer Name"  
FROM  
    (SELECT first_name, last_name FROM customers ORDER BY crv_numbers)  
WHERE  
    Rownum <= 3
```

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

### Part 2 : Using Substitution Variable

```
SELECT  
    first_name "First Name", last_name "Last Name", commission_rate "Commission Rate"  
FROM  
    sales_representatives  
WHERE  
    commission_rate  
ORDER BY last_name
```

First Name	Last Name	Commission Rate
Charles	Raymond	10
Barry	Speed	5
Victoria	Wright	5