



SECD2523-05 DATABASE

Semester 1

Session 2023/2024

Lab 3 – DML2 (1-6)

Section: 05

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Lesson 6 Exercise 1:

Part 1:

Using SELECT* Statement show all data stored in the following Tables:

1. Customers

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	-

2. Teams

SELECT * FROM teams;

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

3. Items

SELECT * FROM items;

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 quaity baseball bat	equipment	-	-	il010230128

Part 2:

1. Display the customer number, first name, last name, email and phone number of the customers

**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

2. Display the name and number of players for each team

SELECT name, number_of_players
FROM teams;

NAME	NUMBER_OF_PLAYERS
Rockets	25
Celtics	42
Rovers	8

3. Display the name, description, and category for every item in the table.

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 quaity baseball bat	equipment

Part 1:

FIRST_NAME	LAST_NAME	CURRENT_BALANCE	MONTHLY_PAYMENT
Robert	Thornberry	150	12.5
Jennifer	Jones	0	0
John	Doe	987.5	82.291666666666666666666666666667
Andrew	Murcia	85	7.08333333333333333333333333333333
Maria	Galant	125.65	10.47083333333333333333333333333333

FIRST_NAME	LAST_NAME	CTR_NUMBER	CURRENT_BALANCE	ADJUSTED_BALANCE
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

c. Looking at the results we can see that even though Jennifer has no current balance, it still subtracts her balance with gift card value, and the new balance is -5.

Part 2:

SELECT

```
first_name AS "First Name",  
last_name AS "Last Name",  
current_balance AS "Balance",  
current_balance / 12 AS "Monthly Repayments"
```

FROM

customers;

[illegible]

Part 3:

a. SELECT

```
'The ' || name || ' team has ' || number_of_players || ' players and
receives a discount of ' || COALESCE(TO_CHAR(discount), '0') || '
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 0 percent.

- b. The last team (Rovers) in the provided data has a NULL value for the discount in the teams table.

Lesson 7 Exercise 1:

Part 1:

- a. **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	-

- b. **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

c. **SELECT** id AS "Order ID", odr_date AS "Date", odr_time AS "Time"
FROM orders
WHERE odr_date < TO_DATE('28-May-2019', 'DD-MON-YYYY');

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 2:

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:

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
il010230124	2.5	100

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
il010230125	7.99	250
il010230126	5.24	87
il010230127	18.95	65
il010230128	97.46	8

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

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

Lesson 7 Exercise 2:

Part 1:

- a. **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.

- b. **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.

Part 2:

**SELECT id "Customer Number", address_line_1 "Street Address",
zip_code "Postal code" FROM customers_addresses WHERE
address_line_2 = 'Starford' AND city = 'Liverpool';**

Customer Number	Street Address	Postal code
ca0102	17 Gartsquare Road	LP89JHK

Part 3:

**SELECT id "Customer Number", address_line_1 "Street Address",
zip_code "Postal code" FROM customers_addresses WHERE
address_line_2 = 'Starford' 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:

SELECT id "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
ca0103	54 Ropehill Crescent	ST45AGV
ca0104	36 Watercress Lane	JP23YTH

Lesson 8 Exercise 1:

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

Team Name	Number of Players
Celtics	42
Rockets	25
Rovers	8

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
Rovers	8

**3. SELECT name "Team Name", number_of_players "Players"
FROM teams ORDER BY "Team Name" DESC;**

Team Name	Number of Players
Celtics	42
Rockets	25
Rovers	8

Lesson 8 Exercise 2:

Part 1:

**SELECT ROWNUM As "Higher Customer Number", first_name || ' '
||last_name AS "Customer Name" FROM (SELECT first_name, last_name
FROM customers ORDER BY ctr_number) WHERE ROWNUM <= 3;**

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

Part 2:

**SELECT first_name||' '||last_name AS "Sales Representatives" FROM
SALES_REPRESENTATIVES WHERE commission_rate =
:commission_rate;
ORDER BY last_name;**