



UTM

UNIVERSITI TEKNOLOGI MALAYSIA

SECD2523 - DATABASE

DR HASLINA BINTI HASHIM

SQL4 – DML3

2023/2024

PREPARED BY: TEAM HAPPY

NO.	NAME	MATRIC NO.
1.	JANE NG JING YING	A22EC0170
2.	ONG JIA YU	A22EC0258
3.	ONG SHUN SHENG	A22EC0259
4.	TOO JUN XUN	A22EC0288

Database Design Project

Oracle Baseball League Store Database

Project Scenario:

You are a small consulting company specializing in database development. You have just been awarded the contract to develop a data model for a database application system for a small retail store called Oracle Baseball League (OBL).

The Oracle Baseball League store serves the entire surrounding community selling baseball kit. The OBL has two types of customer, there are individuals who purchase items like balls, cleats, gloves, shirts, screen printed t-shirts, and shorts. Additionally customers can represent a team when they purchase uniforms and equipment on behalf of the team.

Teams and individual customers are free to purchase any item from the inventory list, but teams get a discount on the list price depending on the number of players. When a customer places an order we record the order items for that order in our database.

OBL has a team of three sales representatives that officially only call on teams but have been known to handle individual customer complaints.

Section 6 Lesson 9 Exercise 2: Joining Tables Using JOIN

Write SELECT Statements Using Data From Multiple Tables Using Equijoins and Non-Equijoins (S6L9 Objective 1)

Part 1 : Use a Self-Join to Join a Table to Itself (S6L9 Objective 2)

- Write a query that will display who the supervisor is for each of the sales representatives. The information should be displayed in two columns, the first column will be the first name and last name of the sales representative and the second will be the first name and last name of the supervisor. The column aliases should be Rep and Supervisor.

```
SELECT R.FIRST_NAME||' '||R.LAST_NAME AS "Rep", S.FIRST_NAME||' '||S.LAST_NAME AS "Supervisor"  
FROM SALES_REPRESENTATIVES R JOIN SALES_REPRESENTATIVES S  
ON R.SUPERVISOR_ID=S.ID;
```

Query Result x
SQL | All Rows Fetched: 3 in 0.737 seconds

	Rep	Supervisor
1	Charles Raymond	Charles Raymond
2	Victoria Wright	Charles Raymond
3	Barry Speed	Charles Raymond

Part 2 : Use OUTER joins (S6L9 Objective 3)

- Write a query that will display all of the team and customer information even if there is no match with the table on the left (team).

```
SELECT*  
FROM TEAMS T RIGHT OUTER JOIN CUSTOMERS C  
ON T.ID=C.TEM_ID;
```

Script Output x Query Result x
SQL | All Rows Fetched: 5 in 0.212 seconds

ID	NAME	NUMBER_OF_PLAYERS	DISCOUNT	CTR_NUMBER	EMAIL	FIRST_NAME	LAST_NAME	PHONE_NUMBER	CURRENT_BALANCE	SRE_ID	TEM_ID	LOYALTY_CARD_NUMBER	
1	t001	Rockets	25	10	c00001	bob.thornberry@heatmail.com	Robert	Thornberry	01234567898	150	sr01	t001	(null)
2	t002	Celtics	42	20	c00101	unknown@here.com	John	Doe	03216547808	987.5	sr01	t002	(null)
3	t003	Rovers	8	(null)	c01986	margal87@delphiview.com	Maria	Galant	01442736589	125.65	sr03	t003	(null)
4	(null)	(null)	(null)	(null)	c00012	Jjones@freemail.com	Jennifer	Jones	01505214598	0	(null)	(null)	1c1015
5	(null)	(null)	(null)	(null)	c00103	MurciaA@globaltech.com	Andrew	Murcia	07715246890	85	(null)	(null)	1c2341

Part 3 : Generating a Cartesian Product (S6L9 Objective 4)

1. Create a Cartesian product between the customer and sales representative tables.

```
SELECT *
FROM CUSTOMERS CROSS JOIN SALES_REPRESENTATIVES;
```

Script Output x Query Result x

All Rows Fetched: 15 in 0.173 seconds

CTR_NUMBER	EMAIL	FIRST_NAME	LAST_NAME	PHONE_NUMBER	CURRENT_BALANCE	SRE_ID	TEM_ID	LOYALTY_CARD_NUMBER	ID	EMAIL_1	FIRST_NAME_1	LAST_NAME_1	PHONE_NUMBER_1	COMMISSION
1 c00001	bob.thornberry@heatmail.com	Robert	Thornberry	01234567898	150	sr01	t001	(null)	sr01	chray@obl.com	Charles	Raymond	0134598761	
2 c00012	Jjones@freemail.com	Jennifer	Jones	01505214598	0 (null)	(null)	lc1015		sr01	chray@obl.com	Charles	Raymond	0134598761	
3 c00101	unknown@here.com	John	Doe	03216547808	987.5	sr01	t002	(null)	sr01	chray@obl.com	Charles	Raymond	0134598761	
4 c00103	MurciaA@globaltech.com	Andrew	Murcia	07715246890	85 (null)	(null)	lc2341		sr01	chray@obl.com	Charles	Raymond	0134598761	
5 c01986	margal87@delphiview.com	Maria	Galant	01442736589	125.65	sr03	t003	(null)	sr01	chray@obl.com	Charles	Raymond	0134598761	
6 c00001	bob.thornberry@heatmail.com	Robert	Thornberry	01234567898	150	sr01	t001	(null)	sr02	vwright@obl.com	Victoria	Wright	0134598762	
7 c00012	Jjones@freemail.com	Jennifer	Jones	01505214598	0 (null)	(null)	lc1015		sr02	vwright@obl.com	Victoria	Wright	0134598762	
8 c00101	unknown@here.com	John	Doe	03216547808	987.5	sr01	t002	(null)	sr02	vwright@obl.com	Victoria	Wright	0134598762	
9 c00103	MurciaA@globaltech.com	Andrew	Murcia	07715246890	85 (null)	(null)	lc2341		sr02	vwright@obl.com	Victoria	Wright	0134598762	
10 c01986	margal87@delphiview.com	Maria	Galant	01442736589	125.65	sr03	t003	(null)	sr02	vwright@obl.com	Victoria	Wright	0134598762	
11 c00001	bob.thornberry@heatmail.com	Robert	Thornberry	01234567898	150	sr01	t001	(null)	sr03	bspeed@obl.com	Barry	Speed	0134598763	
12 c00012	Jjones@freemail.com	Jennifer	Jones	01505214598	0 (null)	(null)	lc1015		sr03	bspeed@obl.com	Barry	Speed	0134598763	
13 c00101	unknown@here.com	John	Doe	03216547808	987.5	sr01	t002	(null)	sr03	bspeed@obl.com	Barry	Speed	0134598763	