


Practicum Case	
COMP6799 COMP6799001 COMP6799016 COMP6799049 Database Technology	
Computer Science	E231-COMP6799-HG01-05
<i>Valid on Even Semester Year 2022/2023</i>	Revision 00

Learning Outcomes

- LO2 – explain the concepts of relational algebra, DDL, DML, transaction management on database and concurrency control

Topic

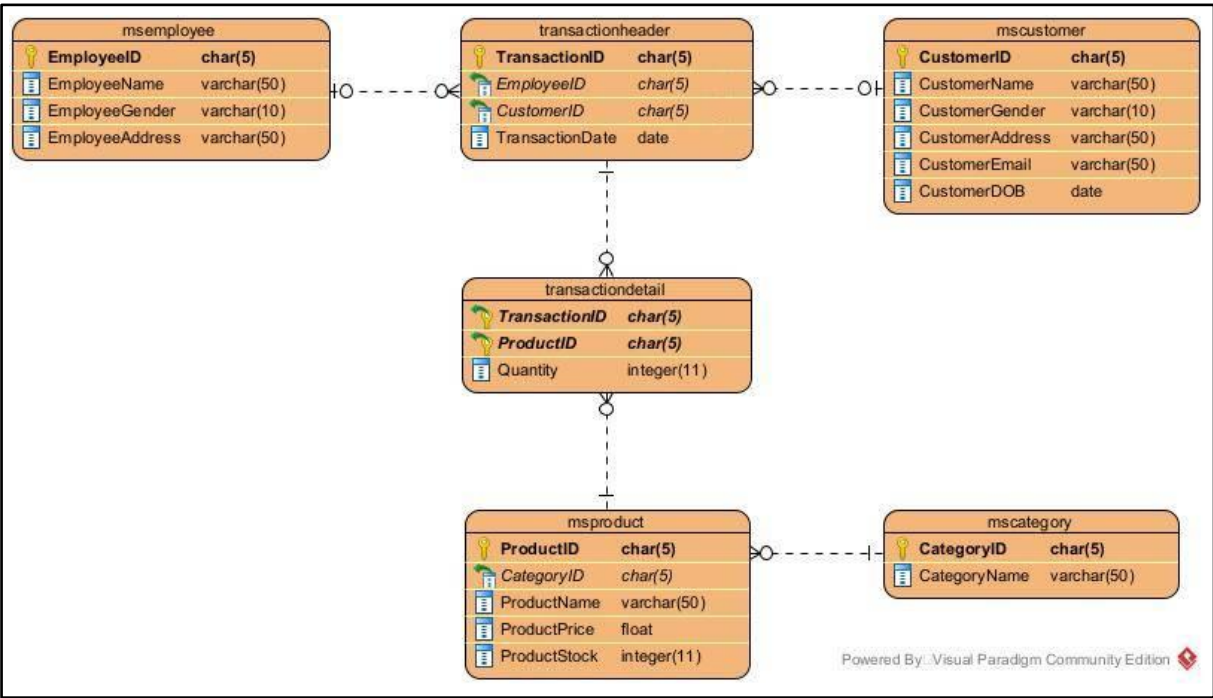
- Session 05 – Simple Query II

Sub Topics

- Order By
- Join
- Set Operation
- Review

Tabel Relasional

Relational Table



Soal**Case**

1. Display **all data** from “**MsCustomer**” table and **sort** it by **CustomerDOB** from the **most recent to the oldest**.

CustomerID	CustomerName	CustomerGender	CustomerAddress	CustomerEmail	CustomerDOB
CU010	Sadie Snow	Female	70 Eagle Crest Hill	ssnow9@github.com	2004-04-25
CU015	Hadleigh Playfoot	Female	49 6th Junction	hplayfoote@msu.com	2004-04-14
CU013	Gabriela Scarf	Female	920 Bobwhite Trail	gscarfc@skype.com	2004-03-12
CU007	Silvain Jozsa	Female	19269 Maryland Hill	sjozsa6@omniture.com	2003-12-30
CU001	Dirk Titterell	Male	74 Melvin Point	dtitterell0@yellowpages.com	2003-10-29
CU009	Wilbur Francino	Female	21840 Golden Leaf Avenue	wfrancino8@wunderground.com	2003-10-06
CU002	Dukey Diano	Male	92 Sugar Alley	ddiano1@state.com	2003-09-27
CU014	Westley Boram	Female	47 Darwin Terrace	wboramd@sun.com	2003-09-03
CU005	Ingamar Carlin	Male	389 Surrey Pass	icarlin4@shareasale.com	2003-08-08
CU012	Amy Grenkov	Male	2263 Weeping Birch Center	agrenkovb@aol.com	2003-06-06
CU006	Pooh McCutcheon	Male	7 Melby Trail	pmccutcheon5@salon.com	2001-08-03
CU011	Sofie Carmen	Female	20196 Springview Plaza	scarmena@gov.com	2000-11-20
CU004	Cherice Jermey	Female	811 Debs Street	cjermey3@guardian.com	2000-05-18
CU003	Alex Meekins	Male	577 Dovetail Park	ameekins2@blogs.com	1996-11-06
CU008	Javier Drewson	Female	8 Moulton Point	jdrewson7@home.com	1996-08-20

2. Display **ProductName**, **CategoryName**, and **ProductPrice** (obtained by adding ‘\$’ in front of the **ProductPrice**) for every **Dairy** product.
(CONCAT)

ProductName	CategoryName	ProductPrice
Mozarella Cheese	Dairy	\$5.99
Cheddar Cheese	Dairy	\$4.99
Gouda Cheese	Dairy	\$5.99
Unsalted Butter	Dairy	\$3.49
Feta Cheese	Dairy	\$3.99
Whole Milk	Dairy	\$2.99
Salted Butter	Dairy	\$3.49
2% Milk	Dairy	\$2.99
Blue Cheese	Dairy	\$6.99
Goat Cheese	Dairy	\$5.99
Swiss Cheese	Dairy	\$4.99
Goat Milk	Dairy	\$3.99

3. Display **CustomerName** and **CustomerAddress** for every **customer** who have done a transaction served by an **employee with id “EM002”** and happened in the **third quarter of the year**. Duplicate data must be **shown only once**.

(**DISTINCT, QUARTER**)

CustomerName	CustomerAddress
Alex Meekins	577 Dovetail Park
Dukey Diano	92 Sugar Alley
Wilbur Francino	21840 Golden Leaf Avenue
Sadie Snow	70 Eagle Crest Hill
Westley Boram	47 Darwin Terrace
Ingamar Carlin	389 Surrey Pass

4. Display **CustomerName**, **CustomerEmail**, **CustomerDOB**, **TransactionID**, and **TransactionDate** for every **customer** whose name **contains letter “m”** and is **born in January until August** and all of the transaction they have done. If the customer **haven’t done any transaction** yet, display **NULL** on the transaction column.

(**LEFT JOIN, LIKE, MONTH**)

CustomerName	CustomerEmail	CustomerDOB	TransactionID	TransactionDate
Cherice Jermey	cjermey3@guardian.com	2000-05-18	NULL	NULL
Ingamar Carlin	icarlin4@shareasale.com	2003-08-08	TR008	2022-03-02
Ingamar Carlin	icarlin4@shareasale.com	2003-08-08	TR019	2022-01-18
Ingamar Carlin	icarlin4@shareasale.com	2003-08-08	TR026	2022-02-14
Ingamar Carlin	icarlin4@shareasale.com	2003-08-08	TR039	2022-09-01
Ingamar Carlin	icarlin4@shareasale.com	2003-08-08	TR051	2022-08-15
Ingamar Carlin	icarlin4@shareasale.com	2003-08-08	TR067	2022-09-01
Pooh McCutcheon	pmccutcheon5@salon.com	2001-08-03	TR022	2022-08-15
Pooh McCutcheon	pmccutcheon5@salon.com	2001-08-03	TR031	2022-05-17
Pooh McCutcheon	pmccutcheon5@salon.com	2001-08-03	TR042	2022-10-31
Pooh McCutcheon	pmccutcheon5@salon.com	2001-08-03	TR054	2022-11-01
Pooh McCutcheon	pmccutcheon5@salon.com	2001-08-03	TR059	2022-12-24
Amy Grenkov	agrenkovb@aol.com	2003-06-06	NULL	NULL

5. Display **TransactionID**, **TransactionDate**, **ProductName**, and **ExpiryDate** (obtained by adding **3 months** to the **TransactionDate** and show it in “**dd-mm-yyyy**” format) for every **product** bought by a customer whose **email ends with “@msu.com”** and **sort** the date from the **oldest to the most recent**.

(**DATE_FORMAT**, **LIKE**)

TransactionID	TransactionDate ▲ 1	ProductName	ExpiryDate
TR007	2022-01-01	Wild Spinach	01 April 2022
TR007	2022-01-01	Granny Smith Apples	01 April 2022
TR007	2022-01-01	Moro Oranges	01 April 2022
TR007	2022-01-01	Swiss Cheese	01 April 2022
TR044	2022-04-12	Atlantic Salmon	12 July 2022
TR044	2022-04-12	Baby Spinach	12 July 2022
TR044	2022-04-12	Wild-Caught Salmon	12 July 2022
TR044	2022-04-12	Seville Oranges	12 July 2022
TR024	2022-10-31	Sockeye Salmon	31 January 2023
TR024	2022-10-31	Free-Range Chicken Breast	31 January 2023
TR024	2022-10-31	Wild-Caught Tuna	31 January 2023
TR024	2022-10-31	Red Delicious Apples	31 January 2023

6. Display **CustomerName**, **EmployeeName**, **TransactionID**, and **TransactionDate** for every **transaction** which **include meat product** in it and the transaction is **served by a male employee**. Then **sort** the data by **CustomerName** in **ascending format**.

(**DISTINCT, LIKE**)

CustomerName ▲ 1	EmployeeName	TransactionID	TransactionDate
Alex Meekins	Shanda	TR002	2022-07-02
Alex Meekins	Nani	TR047	2022-07-04
Dukey Diano	Shanda	TR018	2022-07-04
Dukey Diano	Nani	TR001	2022-05-01
Gabriela Scarf	Nani	TR017	2022-05-17
Ingamar Carlin	Shanda	TR051	2022-08-15
Javier Drewson	Shanda	TR005	2022-12-25
Pooh McCutcheon	Shanda	TR031	2022-05-17
Pooh McCutcheon	Shanda	TR059	2022-12-24
Pooh McCutcheon	Nani	TR054	2022-11-01
Sadie Snow	Nani	TR025	2022-11-01
Silvain Jozsa	Shanda	TR023	2022-12-25
Sofie Carmen	Shanda	TR045	2022-02-14
Sofie Carmen	Tabby	TR016	2022-02-14
Westley Boram	Nani	TR012	2022-11-25
Westley Boram	Shanda	TR066	2022-08-09
Westley Boram	Shanda	TR038	2022-08-09
Wilbur Francino	Shanda	TR053	2022-10-31

7. Display **EmployeeName** (obtained by **adding “Mr.”** in front of the **EmployeeName**) and **EmployeeAddress** for every **Male employee** whose **address begin with one digit**; then **combine** it with **EmployeeName** (obtained by **adding “Mrs.”** in front of the **EmployeeName**) and **EmployeeAddress** for every **Female employee** whose **address begin with one character**.

(**CONCAT, UNION, LIKE**)

EmployeeName	EmployeeAddress
Mr.Dene	2 Grayhawk Parkway
Mr.Desmond	8 Lien Junction
Mr.Rudd	2 Hermina Park
Mrs.Chet	1 Merchant Street
Mrs.Robenia	4 Dapin Avenue
Mrs.Curr	2 Veith Terrace

8. Display TransactionCode (obtained by replacing “TR” in TransactionID with “Wild-”), ProductName, CustomerName (obtained from CustomerName in uppercase format), and Quantity (obtained from the quantity of product sold) for every product whose name contains “Wild”, is bought by a customer whose name consists of two words, and is bought with quantity more than 12; then combine it with TransactionCode (obtained by replacing “TR” in TransactionID with “Organic-”), ProductName, CustomerName (obtained from CustomerName in uppercase format), and Quantity (obtained from the quantity of product sold) for every product whose name contains “Organic”, is bought by a customer whose name consists of two words, and is bought with quantity less than 12

(REPLACE, UPPER, UNION, LIKE)

TransactionCode	ProductName	CustomerName	Quantity
Wild-001	Wild Spinach	DUKEY DIANO	20
Wild-005	Wild-Caught Tuna	JAVIER DREWSON	15
Organic-001	Organic Spinach	DUKEY DIANO	10

9. Display ProductName, CategoryName, and ProductStock for a Dairy product with the lowest stock.

(LIKE)

ProductName	CategoryName	ProductStock
Goat Milk	Dairy	30