Practicum Case	
COMP6799 | COMP6799001 | COMP6799016 | COMP6799049 Database Technology	BINUS UNIVERSITY Software Laboratory Center
Computer Science	**E231-COMP6799-HG01-04**
Valid on *Even Semester Year 2022/2023*	**Revision 00**

Learning Outcomes

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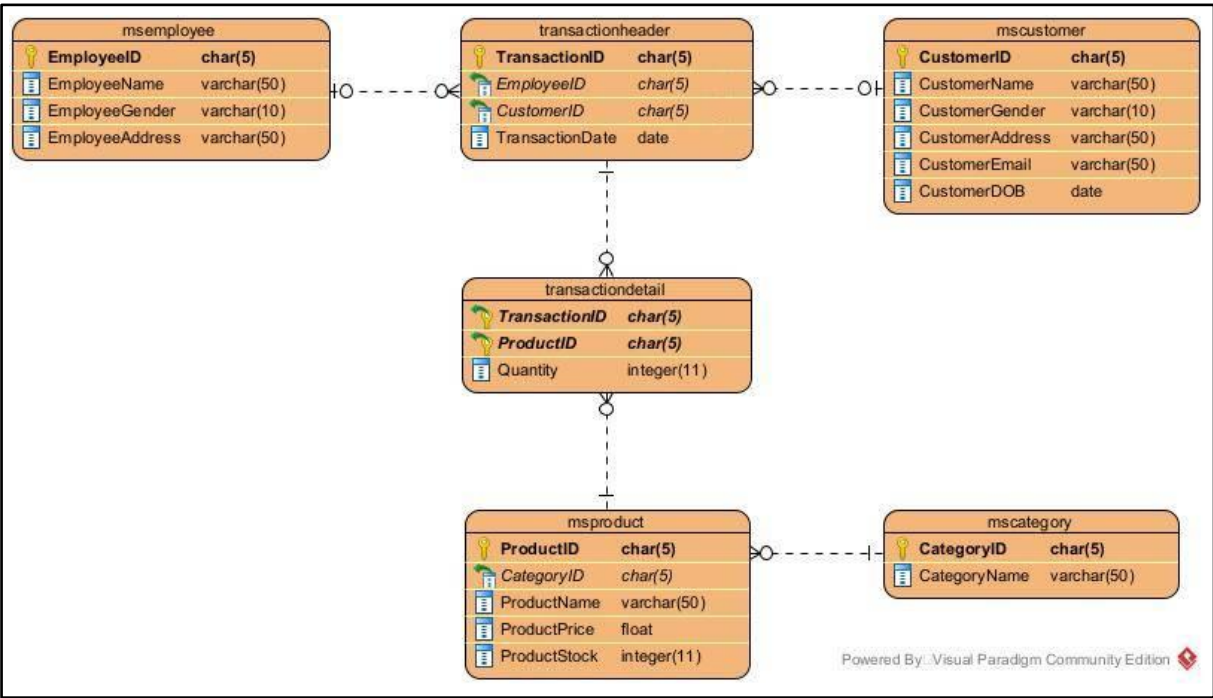
Topic

- Session 04 – Data Definition Language (DDL)

Sub Topics

- View
- Index
- Temporary Table

Tabel Relasional
Relational Table

msemployee		
🔑 **EmployeeID**	**char(5)**	
EmployeeName	varchar(50)	
EmployeeGender	varchar(10)	
EmployeeAddress	varchar(50)	

transactionheader		
🔑 **TransactionID**	**char(5)**	
EmployeeID	*char(5)*	
CustomerID	*char(5)*	
TransactionDate	date	

mscustomer		
🔑 **CustomerID**	**char(5)**	
CustomerName	varchar(50)	
CustomerGender	varchar(10)	
CustomerAddress	varchar(50)	
CustomerEmail	varchar(50)	
CustomerDOB	date	

transactiondetail		
🔑 ***TransactionID***	***char(5)***	
🔑 ***ProductID***	***char(5)***	
Quantity	integer(11)	

msproduct		
🔑 **ProductID**	**char(5)**	
CategoryID	*char(5)*	
ProductName	varchar(50)	
ProductPrice	float	
ProductStock	integer(11)	

mscategory		
🔑 **CategoryID**	**char(5)**	
CategoryName	varchar(50)	

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Soal
Case

1. **Create** a **view** named "**customer_firstname_view**" to display **CustomerID** and **FirstName** (obtained from the **first name** of the **customer**) for every **customer**.
   (**LEFT**, **POSITION**)

CustomerID	FirstName
CU001	Dirk
CU002	Dukey
CU003	Alex
CU004	Cherice
CU005	Ingamar
CU006	Pooh
CU007	Silvain
CU008	Javier
CU009	Wilbur
CU010	Sadie
CU011	Sofie
CU012	Amy
CU013	Gabriela
CU014	Westley
CU015	Hadleigh

2. **Create** an **index** named "**idx_productname**" for "**ProductName**" column on "**MsProduct**" table.

3. **Delete** an **index** named "**idx_productname**".

4. **Create** a **unique index** named "**idx_detailtransaction**" for "**TransactionID**" and "**ProductID**" column on "**TransactionDetail**" table.
   (**UNIQUE**)

5. **Create** a **temporary table** named "**employee_location**" that store **EmployeeID**, **EmployeeInitial** (obtained from the **first three characters** on **employee name** in **uppercase format**), and **AddressLocation** (obtained by **removing** the **first and last word** on **EmloyeeAddress**).
    (**UPPER**, **LEFT**, **SUBSTR**, **POSITION**, **LENGTH**, **REVERSE**)

EmployeeID	EmployeeInitial	AddressLocation
EM001	CLE	Forest Dale
EM002	DEN	Grayhawk
EM003	LET	Goodland
EM004	TYR	Bowman
EM005	SHA	New Castle
EM006	NAN	Village Green
EM007	DOR	Goodland
EM008	CHE	Merchant
EM009	DAR	Toban
EM010	DON	Lyons
EM011	TAB	School
EM012	DES	Lien
EM013	ROB	Dapin
EM014	CUR	Veith
EM015	RUD	Hermina

6. **Create** a **temporary table** named "**top_customer**" that store **CustomerName**, **CustomerEmail** (obtained by **changing** the **word after** '@' with "**gmail.com**"), and **TransactionCount** (obtained from the **count of transaction** the customer does) for **5 customers** that have the **highest TransactionCount.**
    (**INSERT**, **LOCATE**, **COUNT**, **REVERSE**)

CustomerName	CustomerEmail	TransactionCount
Wilbur Francino	wfrancino8@gmail.com	7
Westley Boram	wboramd@gmail.com	7
Dukey Diano	ddiano1@gmail.com	6
Dirk Titterell	dtitterell0@gmail.com	6
Ingamar Carlin	icarlin4@gmail.com	6

7. **Create** a **view** named "**employee_2022_view**" to display **EmployeeID**, **EmployeeName**, and **Transaction Count** (obtained from the **count of transaction** for each employee) for every **employee** where the **transaction** is **done in 2022**. Duplicated items must be **displayed only once**. (**COUNT**, **DISTINCT**, **YEAR**)

EmployeeID	EmployeeName	TransactionCount
EM005	Shanda	17
EM006	Nani	7
EM009	Darsie	17
EM011	Tabby	5
EM013	Robenia	4
EM014	Curr	19

8. **Create** a **view** named "**even_transaction_view**" to display **TransactionID**, **TotalPrice** (obtained **adding '$'** on the **sum of quantity * price** rounded to **2 decimal places**) for every **transaction** which **TransactionID is even**.

    (**CONCAT**, **ROUND**, **SUM**, **CAST**, **RIGHT**)

TransactionID	TotalPrice
TR002	$188.58
TR004	$94.97
TR006	$79.05
TR008	$119.08
TR010	$241.58
TR012	$181.08
TR014	$139.58
TR016	$334.08
TR018	$162.08
TR020	$149.08
TR022	$84.08
TR024	$241.58
TR026	$181.08
TR028	$139.58
TR030	$334.08
TR032	$162.08
TR034	$149.08

9. **Delete** a **view** named "**even_transaction_view**".

10. **Delete** a **views** named "**employee_2022_view**" and "**customer_firstname_view**" if they exist.