Assignment Case	
DBH3	
Periode Berlaku Semester Genap 2022/2023 ***Valid on*** *Even Year 2022/2023*	**Software Laboratory Center** **Assistant Recruitment 23-2**

Materi

Material

- DML Basic

Soal

Case

Jallhara

Jallhara is a well-known musical theater in town, known for the spectatular art show for years.

The theater has a lot of show transactions and in need of a database to manage all the transactions.

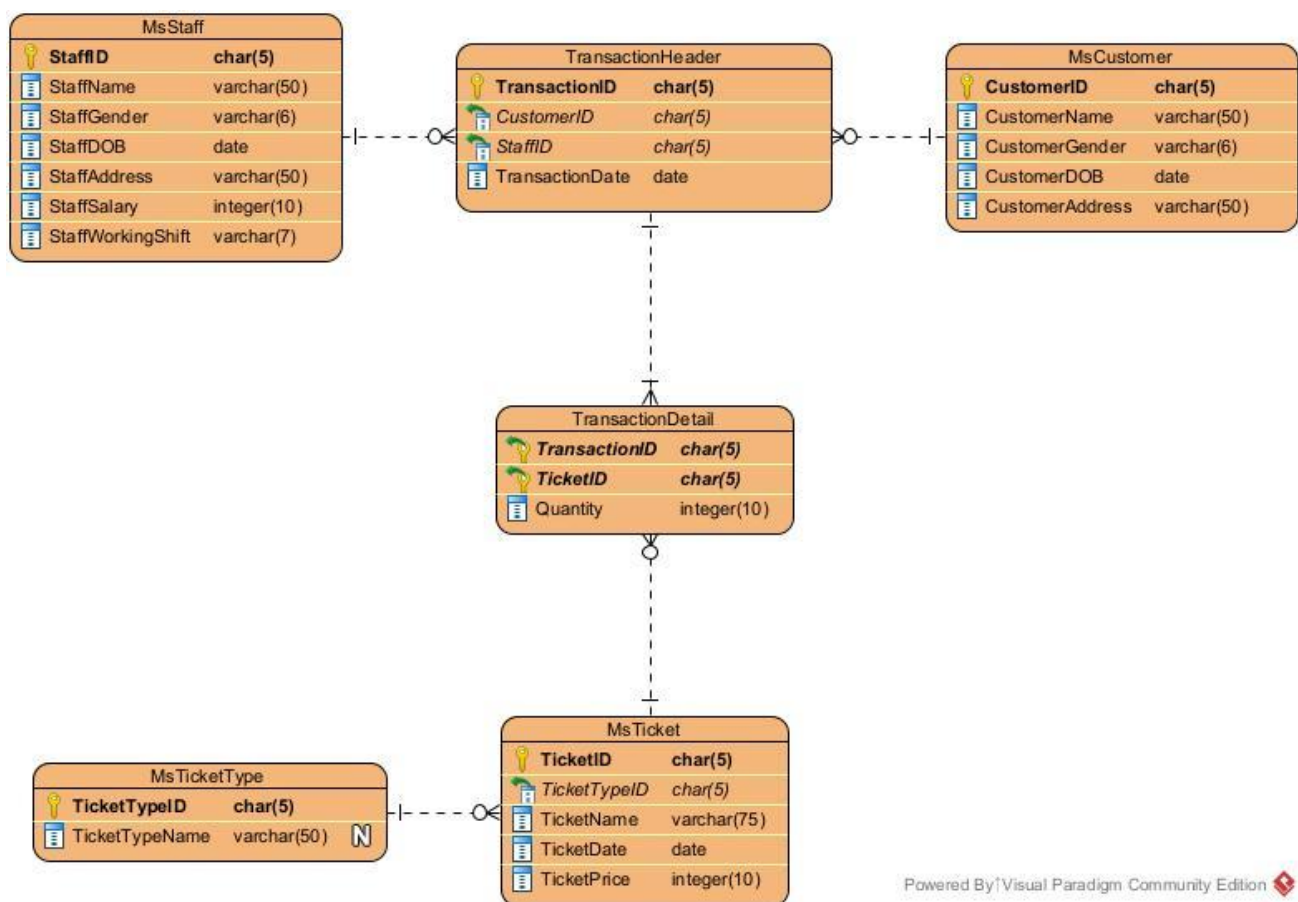The customer can buy more than one ticket in a single transaction.

Figure 1. ERD

1. Display **CustomerName**, **TicketName**, **CustomerAddress**, and **TicketPrice** for every **Customer** whose **address** ended with the letter 'e' and **age bigger than 15**.

    (LIKE, YEAR, CURRENT_TIMESTAMP, JOIN)

	CustomerName	TicketName	CustomerAddress	TicketPrice
1	Thacher Han	The Music of Lord of the Rings and Beyond	68216 Lunder Drive	1500000
2	Thacher Han	The Sound Inside	68216 Lunder Drive	1300000
3	Raine Lambal	The Music of Lord of the Rings and Beyond	9558 Sheridan Lane	1500000
4	Raine Lambal	Les Sylphides	9558 Sheridan Lane	1350000
5	Teriann Shotbolt	The Miraculous Mandarin	27 Sommers Drive	1000000
6	Teriann Shotbolt	Vivaldi: Summer	27 Sommers Drive	1250000
7	Teriann Shotbolt	Les Arts Florissants: Charpentier at Christmas	27 Sommers Drive	545000
8	Teriann Shotbolt	Ronja Räubertochter	27 Sommers Drive	950000
9	Daffi Broadbere	The Music of Lord of the Rings and Beyond	943 Prairie Rose Drive	1500000
10	Daffi Broadbere	The Sound Inside	943 Prairie Rose Drive	1300000

2. Create a **non-clustered index** named '**IX_MsTicket_TicketName**' for column **TicketName** in **MsTicket** table.

    (CREATE INDEX, NONCLUSTERED)

3. Display **TicketID**, **TicketName**, **TicketPrice** (obtained from **TicketPrice** in **Indonesian Rupiah's** format) for every **Ticket** which **name length** is **less than or equal to 20**.

    (CONCAT, LEN)

	TicketID	TicketName	TicketPrice
1	TC002	The Good Grooves	Rp.1650000,00
2	TC005	Beethoven Ninth	Rp.1250000,00
3	TC006	The Sound Inside	Rp.1300000,00
4	TC007	Swan Lake	Rp.1650000,00
5	TC011	Les Sylphides	Rp.1350000,00
6	TC012	Srimpi	Rp.950000,00
7	TC013	Ronja Räubertochter	Rp.950000,00
8	TC014	Vivaldi: Summer	Rp.1250000,00
9	TC015	Roméo et Juliette	Rp.175000,00

4. Display **TicketID** (obtained from **TicketID** by **replacing** 'TC' with 'Ticket '), **TicketName**, **TicketDate** (obtained from **TicketDate** in 'DD Mon YY' format), and **TicketPrice** for every **Transaction** that happened in **year 2022**.

   (REPLACE, CONVERT, YEAR, JOIN)

	TicketID	TicketName	TicketDate	TicketPrice
1	Ticket 003	The Music of Zimmer vs Williams	18 Oct 23	425000
2	Ticket 001	Les Arts Florissants: Charpentier at Christmas	04 Sep 23	545000
3	Ticket 001	Les Arts Florissants: Charpentier at Christmas	04 Sep 23	545000
4	Ticket 013	Ronja Räubertochter	29 Jun 22	950000
5	Ticket 004	The Music of Lord of the Rings and Beyond	27 Mar 22	1500000
6	Ticket 006	The Sound Inside	30 Mar 22	1300000
7	Ticket 007	Swan Lake	09 Dec 22	1650000
8	Ticket 008	The Miraculous Mandarin	12 Oct 23	1000000
9	Ticket 014	Vivaldi: Summer	10 Mar 23	1250000
10	Ticket 007	Swan Lake	09 Dec 22	1650000

5. Create a view named '**Senior_Female_Staff**' to display **StaffID**, **StaffName** (obtained from **StaffName** by **adding 'Mr./Mrs. '** and followed by **StaffName** in **Uppercase** format), **StaffAddress**, and **StaffWorkingShift** (obtained from **the first letter** from **StaffWorkingShift**) for every **Staff** whose **gender** is '**Female'** and handled **Transaction** with **quantity more than or equal to 15**.

   (CREATE VIEW, CONCAT, UPPER, LEFT, JOIN)

	StaffID	StaffName	StaffAddress	StaffWorkingShift
1	SF007	Ms./Mrs. MELANY BRANGAN	99 Sachs Way	N
2	SF009	Ms./Mrs. GILBERTA O'HANLEY	52832 Goodland Avenue	M
3	SF009	Ms./Mrs. GILBERTA O'HANLEY	52832 Goodland Avenue	M
4	SF009	Ms./Mrs. GILBERTA O'HANLEY	52832 Goodland Avenue	M
5	SF007	Ms./Mrs. MELANY BRANGAN	99 Sachs Way	N
6	SF003	Ms./Mrs. CAMILLA SHEARS	6045 Leroy Trail	N
7	SF003	Ms./Mrs. CAMILLA SHEARS	6045 Leroy Trail	N
8	SF003	Ms./Mrs. CAMILLA SHEARS	6045 Leroy Trail	N

6. Display **TransactionID**, **TransactionDate**, **CustomerName**, **TicketName**, and **CustomerAge** (obtained from the **current age** of **Customer**) for every **Transaction** that handled by **Staff SF003 and SF008**.

   (DATEDIFF, YEAR, CURRENT_TIMESTAMP, IN, JOIN)

	TransactionID	TransactionDate	CustomerName	TicketName	CustomerAge
1	TD002	2022-07-20	Libby Schmidt	The Music of Zimmer vs Williams	20
2	TD013	2022-06-10	Daffi Broadbere	The Music of Lord of the Rings and Beyond	20
3	TD013	2022-06-10	Daffi Broadbere	The Sound Inside	20
4	TD015	2022-11-06	Dewie Zaczek	Swan Lake	19
5	TD015	2022-11-06	Dewie Zaczek	The Miraculous Mandarin	19
6	TD015	2022-11-06	Dewie Zaczek	Vivaldi: Summer	19
7	TD019	2023-01-01	Rafael de Guise	The Miraculous Mandarin	26

7. Display **TransactionID** for every **Transaction** which **date** is **bigger than or equal to 15**. Make sure there is **no duplicated TransactionID**.

   (DISTINCT, DAY, JOIN)

	TransactionID
1	TD002
2	TD006
3	TD011
4	TD014

8. Display **CustomerName**, **StaffID** (obtained from **StaffID** by **replacing** '**SF**' with '**Staff** '), **CustomerAge** (obtained from the **current age** of **Customer**), **TicketName**, and **TotalTicketPrice** (obtained from **Quantity * TicketPrice** in **Indonesian Rupiah's** format) for every **Transaction** which **Quantity** is **less than 15** and **Staff** who was born **before June**.

(REPLACE, DATEDIFF, YEAR, CURRENT_TIMESTAMP, FORMAT, MONTH, JOIN)

	CustomerName	StaffID	CustomerAge	TicketName	TotalTicketPrice
1	Libby Schmidt	Staff 003	20	The Music of Zimmer vs Williams	Rp850.000,00
2	Daffi Broadbere	Staff 003	20	The Sound Inside	Rp2.600.000,00
3	Gilles Keward	Staff 005	19	Beethoven Ninth	Rp15.000.000,00
4	Dewie Zaczek	Staff 003	19	Swan Lake	Rp6.600.000,00
5	Libby Schmidt	Staff 001	20	Swan Lake	Rp13.200.000,00

9. Display **CustomerName**, **Ticket** (obtained from the **first word** of **TicketTypeName** followed by ' **:** ' and **TicketName**), and **TicketMonth** (obtained from the **month name** of **TicketDate**) for every **TicketTypeName** that **ended** with '**Music**'.

(CONCAT, SUBSTRING, CHARINDEX, DATENAME, MONTH, LIKE, JOIN)

	CustomerName	Ticket	TicketMonth
1	Libby Schmidt	Movie : The Music of Zimmer vs Williams	October
2	Thacher Han	Movie : The Music of Lord of the Rings and Beyond	March
3	Shell Stebbings	Jazz : Les Arts Florissants: Charpentier at Christm...	September
4	Raine Lambal	Movie : The Music of Lord of the Rings and Beyond	March
5	Teriann Shotbolt	Classical : Vivaldi: Summer	March
6	Max Demelt	Christmas : The Good Grooves	April
7	Teriann Shotbolt	Jazz : Les Arts Florissants: Charpentier at Christm...	September
8	Daffi Broadbere	Movie : The Music of Lord of the Rings and Beyond	March
9	Gilles Keward	Movie : The Music of Zimmer vs Williams	October
10	Gilles Keward	Classical : Beethoven Ninth	July
11	Dewie Zaczek	Classical : Vivaldi: Summer	March
12	Richy Stripling	Movie : The Music of Lord of the Rings and Beyond	March

10. Display **CustomerName**, **CoupunCode** (obtained from **TransactionID** by **replacing** the **first two letters** with the **first two letters** from **TicketTypeName** in **Uppercase** format), and **TicketName** for every **Transaction** that happened in the **weekend (Friday, Saturday, and Sunday)** and **quantity less than 10**.

(REPLACE, LEFT, UPPER, DATENAME, WEEKDAY, IN, JOIN)

	CustomerName	CouponCode	TicketName
1	Daffi Broadbere	TH013	The Sound Inside
2	Dewie Zaczek	CL015	Swan Lake
3	Libby Schmidt	CL018	Swan Lake

"Wonderful things can be achieved when there's teamwork, hard work, and perseverance" - 22-2