


Assignment Case	
DatabaseH2	
Periode Berlaku Semester Genap 2023/2024 Valid on Even Year 2023/2024	Software Laboratory Center Assistant Recruitment 24-2

**Note: Please focus on the main logic and main feature!**  
*(Splash screen and design are not scored)*

## Soal

Case

### Max Health

Discover **Max Health**, your ultimate fitness destination! We specialize in premium protein supplements designed to optimize your workout routine and enhance your overall health. With a diverse range of protein types, including whey and plant-based options, **Max Health** caters to every fitness enthusiast's needs. Our knowledgeable team is dedicated to providing personalized recommendations and expert guidance to help you achieve your fitness goals effectively. Choose **Max Health** for top-quality products and unparalleled support on your journey to wellness.

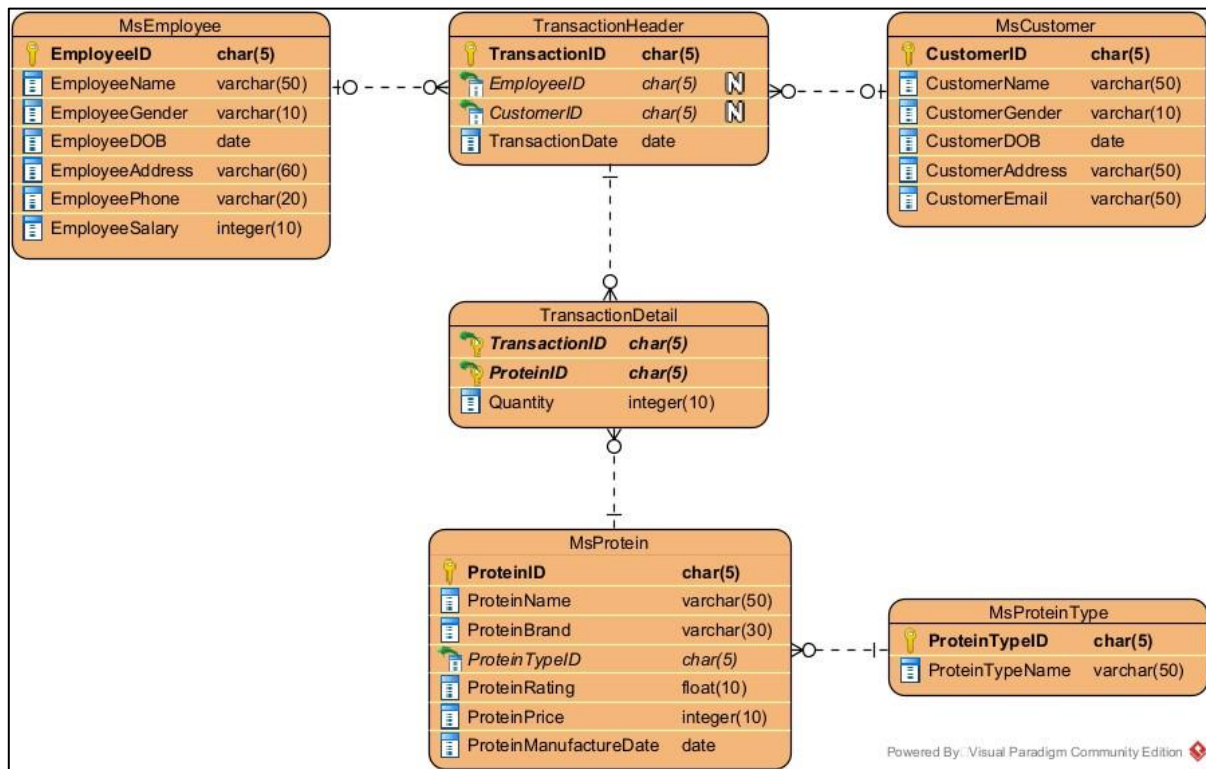


Figure 1. Max Health ERD

### Notes

- Import **MaxHealth.bak** file (attached with the case), then **execute** the file on **SQL Server Management Studio (SSMS)**.
- Please **include the number of the question** in you answer SQL file.

1. Display **EmployeeName**, **EmployeeSalary**, **BirthYear** (obtained from the year of **EmployeeDOB**) for every **male** employee.  
(YEAR, LIKE)

	EmployeeName	EmployeeSalary	BirthYear
1	Andrew Johnson	50000	1980
2	Michael Brown	60000	1990
3	William Davis	53000	1992
4	David Wilson	58000	1991
5	Daniel Taylor	59000	1993
6	Christopher Garcia	51000	1981
7	Matthew King	55000	1987

Figure 2. Query Result Case Number 1

2. **Update the protein brand** in MsProtein to **add ' Brand'** after the **brandname** for every protein's **brand name** with **2 words or more**.  
(CONCAT, LIKE)

**BEFORE:**

	ProteinID	ProteinBrand
1	PN001	Optimum Nutrition
2	PN004	NOW Sports
3	PN009	Garden of Life
4	PN010	JYM Supplement Science
5	PN011	Naked Nutrition
6	PN012	Kaged Muscle
7	PN015	Jay Robb

**AFTER:**

	ProteinID	ProteinBrand
1	PN001	Optimum Nutrition Brand
2	PN004	NOW Sports Brand
3	PN009	Garden of Life Brand
4	PN010	JYM Supplement Science Brand
5	PN011	Naked Nutrition Brand
6	PN012	Kaged Muscle Brand
7	PN015	Jay Robb Brand

Figure 3. Query Result Case Number 2

3. Display **ProteinTypeName** (obtained from **uppercasing ProteinTypeName**), **ProteinRating**, **ProteinManufactureDate** for every protein that has a **rating between 4.4 and 4.6**.  
(UPPER, BETWEEN)

	ProteinTypeName	ProteinRating	ProteinManufactureDate
1	WHEY PROTEIN	4.5	2023-05-15
2	PLANT-BASED PROTEIN	4.4	2023-09-05
3	WHEY PROTEIN	4.6	2023-10-12
4	WHEY PROTEIN	4.5	2024-02-28
5	WHEY PROTEIN	4.4	2024-06-30

Figure 4. Query Result Case Number 3

4. Display **CustomerSalutation** (obtained from adding 'Mr/Mrs. ' in front of **CustomerName**), **CustomerGender**, **EmployeeID**, **TransactionDate** for every transaction that happened in the first month and the length of their name is bigger or equal than 12.  
(CONCAT, MONTH, LEN)

	CustomerSalutation	CustomerGender	EmployeeID	TransactionDate
1	Mr/Mrs. Michael Johnson	Male	EM006	2024-01-15
2	Mr/Mrs. Amanda Lopez	Female	EM011	2024-01-18
3	Mr/Mrs. Daniel Garcia	Male	EM012	2022-01-25
4	Mr/Mrs. David Martinez	Male	EM014	2024-01-08
5	Mr/Mrs. Matthew King	Male	EM003	2024-01-05
6	Mr/Mrs. Linda Hernandez	Female	EM013	2021-01-12
7	Mr/Mrs. Amanda Lopez	Female	EM008	2024-01-22

Figure 5. Query Result Case Number 4

5. Update **EmployeeAddress** from MsEmployee to '123 New Street' for every **EmployeeName** ending with 'son', **EmployeeAddress** that starts with '1', and the length of **EmployeePhone** is longer than 10.  
(RIGHT, LIKE, LEN)

BEFORE:

	EmployeeID	EmployeeName	EmployeeAddress	EmployeePhone
1	EM001	Andrew Johnson	123 Main St, Anytown	+1234567890

AFTER:

	EmployeeID	EmployeeName	EmployeeAddress	EmployeePhone
1	EM001	Andrew Johnson	123 New Street	+1234567890

Figure 6. Query Result Case Number 5

6. Update **TransactionDate** from TransactionHeader to add it with 7 days for every transaction that occurred on quarter 1 or 2 and **CustomerGender** is 'Female'.

(DATEADD, DATENAME, QUARTER)

**BEFORE:**

	TransactionID	TransactionDate
1	TR003	2024-01-18
2	TR005	2024-02-05
3	TR006	2021-02-22
4	TR007	2023-01-28
5	TR009	2019-02-12
6	TR010	2024-02-15
7	TR011	2022-03-03
8	TR013	2022-02-18
9	TR016	2023-02-25
10	TR017	2024-03-09
11	TR018	2021-01-12
12	TR019	2024-01-22

**AFTER:**

	TransactionID	TransactionDate
1	TR003	2024-01-25
2	TR005	2024-02-12
3	TR006	2021-03-01
4	TR007	2023-02-04
5	TR009	2019-02-19
6	TR010	2024-02-22
7	TR011	2022-03-10
8	TR013	2022-02-25
9	TR016	2023-03-04
10	TR017	2024-03-16
11	TR018	2021-01-19
12	TR019	2024-01-29

Figure 7. Query Result Case Number 6

7. **Delete** data from **TransactionDetail** for every transaction that **occured more than 2 months ago and in the year 2022.**

(DATEADD, GETDATE, YEAR)

**BEFORE:**

	TransactionID	TransactionDate	ProteinID	Quantity
1	TR004	2022-01-25	PN007	3
2	TR011	2022-03-03	PN004	3
3	TR011	2022-03-03	PN006	1
4	TR013	2022-02-18	PN010	1

**AFTER:**

	TransactionID	TransactionDate	ProteinID	Quantity
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Figure 8. Query Result Case Number 7

8. Display **FirstName** (obtained from the **first word of CustomerName**), **LastName** (obtained from the **last word of CustomerName**), **Quantity**, **ProteinName**, and **ProteinPrice** for every protein which has a **price of either 45 or 50**.

(LEFT, CHARINDEX, REVERSE, SUBSTRING, IN)

	FirstName	LastName	Quantity	ProteinName	ProteinPrice
1	Michael	Johnson	2	Gold Standard 100% Whey	45
2	William	Taylor	1	Syntha-6	50
3	Jane	Smith	1	Sunwarrior Warrior Blend Plant-Based Protein	45
4	Jessica	Wilson	2	Gold Standard 100% Whey	45
5	Jessica	Wilson	1	Syntha-6	50
6	Jane	Smith	1	Gold Standard 100% Whey	45
7	Linda	Hernandez	2	Syntha-6	50

Figure 9. Query Result Case Number 8

9. Display **StaffSalutation** (obtained from **adding 'Mr./Mrs. ' in front of the staff's last name**), **TransactionDate** (obtained from the **TransactionDate in Norwegian date format**), **Quantity**, **ProteinTypeName** for every data which **ProteinTypeName** is **'Egg Protein'**.

(REVERSE, SUBSTRING, CHARINDEX, FORMAT, LIKE)

	StaffSalutation	TransactionDate	Quantity	ProteinTypeName
1	Mr./Mrs. Taylor	28.02.2023	2	Egg Protein
2	Mr./Mrs. Williams	12.02.2019	1	Egg Protein
3	Mr./Mrs. Moore	03.03.2022	3	Egg Protein
4	Mr./Mrs. Davis	25.02.2023	2	Egg Protein
5	Mr./Mrs. King	12.01.2021	1	Egg Protein

Figure 10. Query Result Case Number 9

10. Display the **CustomerEmail** (obtained from **adding 'man' before the '@' symbol in CustomerEmail**), **CustomerDOB**, **ProteinName** (obtained from **lowercasing the CustomerDOB**), **ProteinPrice** for every male customer and their **age is older than 40**.

(STUFF, CHARINDEX, LOWER, DATEDIFF, GETDATE)

	CustomerEmail	CustomerDOB	ProteinName	ProteinPrice
1	michael.johnsonman@example.com	1982-11-10	gold standard 100% whey	45
2	michael.johnsonman@example.com	1982-11-10	vega sport premium protein	40
3	michael.johnsonman@example.com	1982-11-10	orgain organic plant based protein powder	42
4	christopher.youngman@example.com	1980-05-23	kaged muscle kasein protein powder	51
5	christopher.youngman@example.com	1980-05-23	mhp maximum whey	52
6	christopher.youngman@example.com	1980-05-23	musclepharm combat protein powder	47

Figure 11. Query Result Case Number 10

**Good Luck! 😊**

**Inspired by passion, driven by purpose, together we shatter limits and redefine boundaries**  
Bluejacket 23-2