Marmara University – Faculty of Engineering – Department of Computer Engineering

Fall 2021 – CSE3055 Database Systems

Project Step #3

Report

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Project Description

The Nutrition system stores patient information in a way that nutritionist can access. There are two different types of users: patient login and dietitian login. Patients can access their diet programs and monitor their progress. Nutrition can update their patients' diet lists and check their progress.

The primary purpose of the database in the project, apart from keeping the general information of the patients coming to the dieticians, is to control the progress of the patients regularly and to ensure that they are more disciplined in reaching their goals.

In addition to the weight-fat ratio etc. data of the patients, a photo record is taken regularly to control the visible change.

Processes supported by the system:

-Our system supports adding and deleting patient

-Our system supports adding and deleting Nutritionist

-Our system supports adding and deleting nutrient

-Our system supports adding patient photo and meal photo

-Our system allows to update patient's data

-Our system supports to update the patient's diet list

-Our system supports providing feedback to the patient at certain periods.

Processes not supported by the system

-System does not allow 1 patient to be assigned to 2 different nutritionists

Business Rules and Constraints:

- A user must be either a nutritionist or a client but not both of them.

- A nutritionist may consult many clients but each client must have only one nutritionist.

- A client may send monthly or daily feedbacks to his/her nutritionist but it is not mandatory, on the other hand every feedback must be sent by only one client.

- A client must have at least one diet program (one of the programs has to be active) and every diet program must be assigned to only one client.

- Every diet program consists of at least three Program Meals and every Program Meal has to contain only one Meal Info.

- A program meal consists of at least one Program Meal Detail.

- Program Meal Detail carries information about only one Nutrient.

- A Nutrient Category contains at least one Nutrient and every Nutrient must be a member of only one cathegory.

Other Functional& Nonfunctional Business Requirements

Functional Requirements

- The system must have an authentication system with username and password that will be used by both clients and nutritionists.

- Clients must be able to view their diet programs and statistics.

- System should provide an environment for nutritionists to insert, delete and update information relating clients.

- Nutritionists can assign diet programs to the clients.

- Clients can enters their feedbacks (daily and monthly feedbacks) into system

- Program can list and show the every information in the database.

Non-functional Requirements

- The system needs a server to keep the information in the database.

- The interface can only be accessed with the system's password.

- Users need to use an interface to interact with the database.

- The interface has a simple structure so that users can easily process data.

- New features can be easily integrated into the system.

- The database only keeps the necessary data in it.

Tables

User: Superclass for Client and Nutritionist.

1	UserID	int
2	UserType	char(1)
3	FullName	nvarchar(30)
4	Gender	char(1)
5	PhoneNumber	nvarchar(20)
6	Password	nvarchar(max)
7	UserEmail	nvarchar(50)

Index:

The data in this table has been indexed according to FullName

Keys:

Every User has a UserID as Primary Key.

Identity:

UserID column has identity function so that it increases automatically when new row added.

Uniques:

Email field has to be unique for each user.

CheckConstraints:

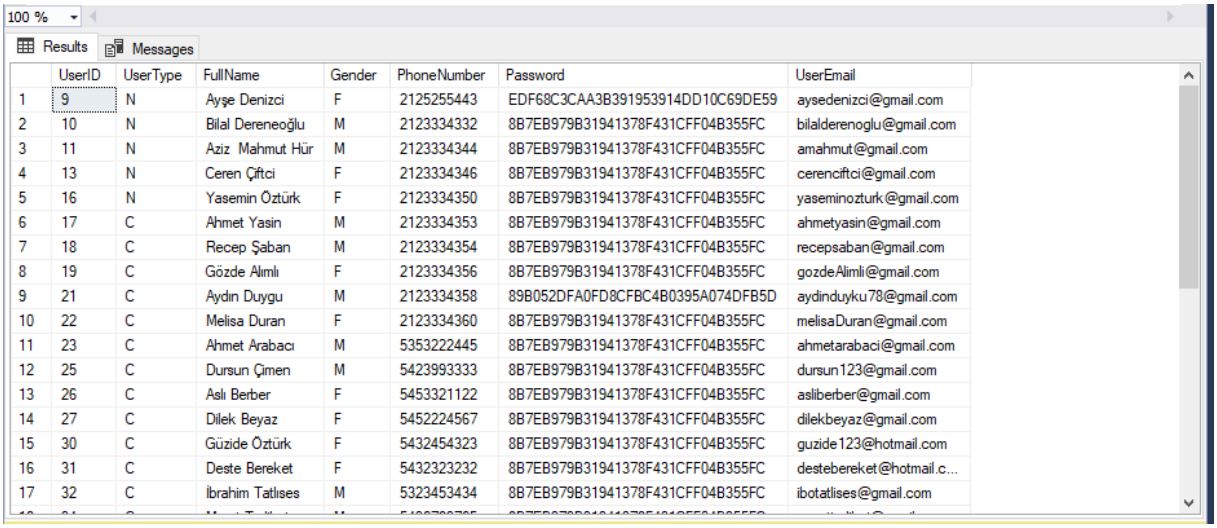
Gender has to be a single character, either 'M' representing Male or 'F' representing Female.

UserType has to be a single character, either 'C' representing Client or 'N' representing Nutritionist.

Triggers:

There is '**tg_ConvertToPassMD5'** trigger to ensure users security. It runs if an insertion or update happens on the User table. It converts the password of User into MD5 encryption format.

Figure 1 Records In User Table:



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Results | Messages

	UserID	UserType	FullName	Gender	PhoneNumber	Password	UserEmail
1	9	N	Ayşe Denizci	F	2125255443	EDF68C3CAA3B391953914DD10C69DE59	aysedenizci@gmail.com
2	10	N	Bilal Dereneoğlu	M	2123334332	8B7EB979B31941378F431CFF04B355FC	bilalderenoglu@gmail.com
3	11	N	Aziz Mahmut Hür	M	2123334344	8B7EB979B31941378F431CFF04B355FC	amahmut@gmail.com
4	13	N	Ceren Çiftci	F	2123334346	8B7EB979B31941378F431CFF04B355FC	cerenciftci@gmail.com
5	16	N	Yasemin Öztürk	F	2123334350	8B7EB979B31941378F431CFF04B355FC	yaseminozturk@gmail.com
6	17	C	Ahmet Yasin	M	2123334353	8B7EB979B31941378F431CFF04B355FC	ahmetyasin@gmail.com
7	18	C	Recep Şaban	M	2123334354	8B7EB979B31941378F431CFF04B355FC	recepsaban@gmail.com
8	19	C	Gözde Alımlı	F	2123334356	8B7EB979B31941378F431CFF04B355FC	gozdeAlimli@gmail.com
9	21	C	Aydın Duygu	M	2123334358	89B052DFA0FD8CFBC4B0395A074DFB5D	aydinduyku78@gmail.com
10	22	C	Melisa Duran	F	2123334360	8B7EB979B31941378F431CFF04B355FC	melisaDuran@gmail.com
11	23	C	Ahmet Arabacı	M	5353222445	8B7EB979B31941378F431CFF04B355FC	ahmetarabaci@gmail.com
12	25	C	Dursun Çimen	M	5423993333	8B7EB979B31941378F431CFF04B355FC	dursun123@gmail.com
13	26	C	Aslı Berber	F	5453321122	8B7EB979B31941378F431CFF04B355FC	asliberber@gmail.com
14	27	C	Dilek Beyaz	F	5452224567	8B7EB979B31941378F431CFF04B355FC	dilekbeyaz@gmail.com
15	30	C	Güzide Öztürk	F	5432454323	8B7EB979B31941378F431CFF04B355FC	guzide123@hotmail.com
16	31	C	Deste Bereket	F	5432323232	8B7EB979B31941378F431CFF04B355FC	desteberekt@hotmail.c...
17	32	C	İbrahim Tatlıses	M	5323453434	8B7EB979B31941378F431CFF04B355FC	ibotatlises@gmail.com

Client: Client table keeps data about people that get consultancy from nutritionists about their eating habits.

1	ClientID	int
2	Profession	nvarchar(30)
3	Weight	numeric(5,1)
4	Height	int
5	TargetWeight	numeric(5,1)
6	FatRate	numeric(5,2)
7	DateOfBirth	smalldatetime
8	Bmi	numeric(22,12)
9	CaloriesNeeded	int
10	Age	int
11	StartDateOfRegistration	smalldatetime
12	EndDateOfRegistration	smalldatetime
13	MedicalHistory	nvarchar(50)
14	IsActive	bit
15	DailyActivityLevelID	int
16	BMH	numeric(6,1)
17	NutritionistID	int

Keys:

Every Client has a clientID as Primary Key and Foreign Key(It refers to UserID column in User table).

For every client UserID of his/her Nutritionist is mentioned as NutritionistID column and this is another Foreign Key.

Calculated Columns:

Column 'Age' is calculated using date of birth info and the current date.

And 'BMI' **(** Body Mass Index**)** value is also calculated from height and weight values of the client.

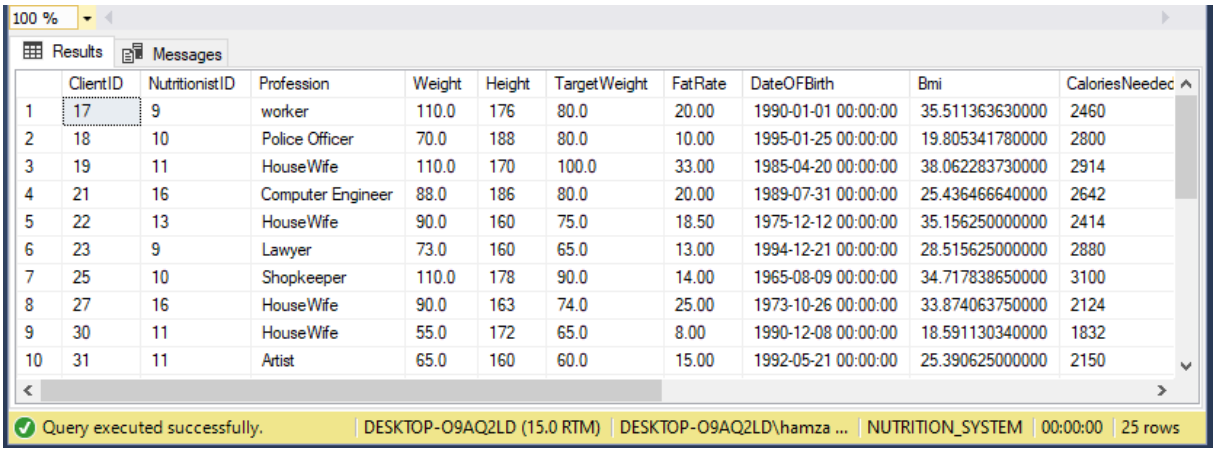
Triggers:

There is 1 trigger named 'tg_calculateBMH'to calculate both **Basal Metabolic Rate and needed calory value (CaloriesNeeded)**of the client. This trigger is explained below on Part E in detail.

Defaults:

Value of needed calory(CaloriesNeeded) is set to **2000** kcal by default.

Figure 2 Records In Client Table:



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Results | Messages

	ClientID	NutritionistID	Profession	Weight	Height	TargetWeight	FatRate	DateOFBirth	Bmi	CaloriesNeedec
1	17	9	worker	110.0	176	80.0	20.00	1990-01-01 00:00:00	35.511363630000	2460
2	18	10	Police Officer	70.0	188	80.0	10.00	1995-01-25 00:00:00	19.805341780000	2800
3	19	11	HouseWife	110.0	170	100.0	33.00	1985-04-20 00:00:00	38.062283730000	2914
4	21	16	Computer Engineer	88.0	186	80.0	20.00	1989-07-31 00:00:00	25.436466640000	2642
5	22	13	HouseWife	90.0	160	75.0	18.50	1975-12-12 00:00:00	35.156250000000	2414
6	23	9	Lawyer	73.0	160	65.0	13.00	1994-12-21 00:00:00	28.515625000000	2880
7	25	10	Shopkeeper	110.0	178	90.0	14.00	1965-08-09 00:00:00	34.717838650000	3100
8	27	16	HouseWife	90.0	163	74.0	25.00	1973-10-26 00:00:00	33.874063750000	2124
9	30	11	HouseWife	55.0	172	65.0	8.00	1990-12-08 00:00:00	18.591130340000	1832
10	31	11	Artist	65.0	160	60.0	15.00	1992-05-21 00:00:00	25.390625000000	2150

Query executed successfully. | DESKTOP-O9AQ2LD (15.0 RTM) | DESKTOP-O9AQ2LD\hamza ... | NUTRITION_SYSTEM | 00:00:00 | 25 rows

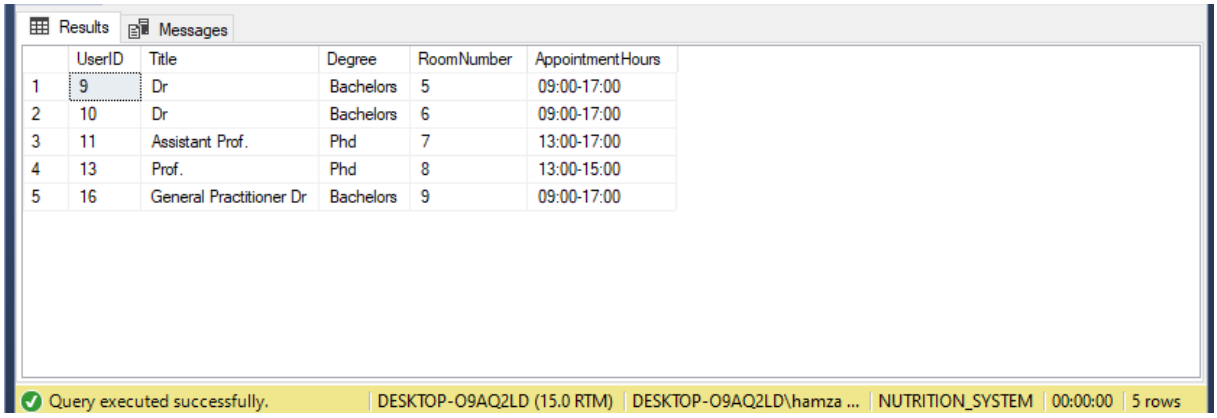
Nutritionist: Nutritionist table keep data about doctors who gives consultancy to clients about managing their eating habits.

1	UserID	int
2	Title	nvarchar(25)
3	Degree	nvarchar(25)
4	Room Number	int
5	AppointmentHours	char(11)

Keys:

Every Nutritionist has a UserID which is both a primary key and a foreign key referring UserID column in User table.

Figure 3 Records In Nutritionist Table:



Nutrient: Nutrient table keeps data relating foods such as name and attributes like calory value, amount of carbohydrate, protein and fat.

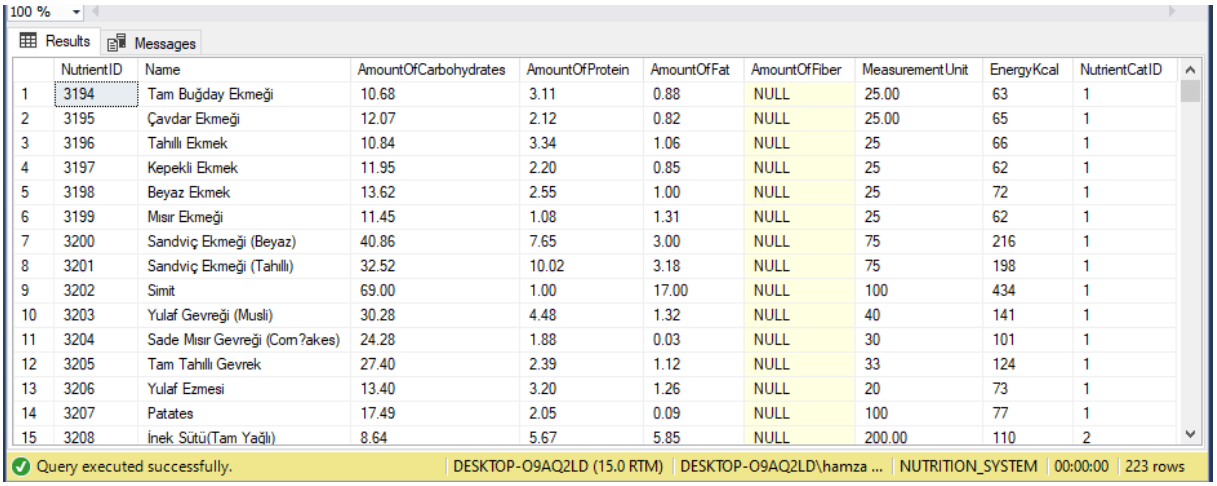
1	NutrientID	int
2	Name	nvarchar(128)
3	AmountOfCarbohydrates	numeric(6,2)
4	AmountOfProtein	numeric(6,2)
5	AmountOfFat	numeric(6,2)
6	AmountOfFiber	numeric(6,2)
7	MeasurementUnit	nvarchar(50)
8	EnergyKcal	int
9	NutrientCatID	int

Keys:

Every Nutrient has a NutrientIDwhich is primary key.

NutrientCatID is a foreign key referring NutrientCatID column in NutrientCat table.

Figure 4 Records In Nutrient Table:



	NutrientID	Name	AmountOfCarbohydrates	AmountOfProtein	AmountOfFat	AmountOfFiber	MeasurementUnit	EnergyKcal	NutrientCatID
1	3194	Tam Buğday Ekmeği	10.68	3.11	0.88	NULL	25.00	63	1
2	3195	Çavdar Ekmeği	12.07	2.12	0.82	NULL	25.00	65	1
3	3196	Tahıllı Ekmek	10.84	3.34	1.06	NULL	25	66	1
4	3197	Kepekli Ekmek	11.95	2.20	0.85	NULL	25	62	1
5	3198	Beyaz Ekmek	13.62	2.55	1.00	NULL	25	72	1
6	3199	Mısır Ekmeği	11.45	1.08	1.31	NULL	25	62	1
7	3200	Sandviç Ekmeği (Beyaz)	40.86	7.65	3.00	NULL	75	216	1
8	3201	Sandviç Ekmeği (Tahıllı)	32.52	10.02	3.18	NULL	75	198	1
9	3202	Simit	69.00	1.00	17.00	NULL	100	434	1
10	3203	Yulaf Gevreği (Musli)	30.28	4.48	1.32	NULL	40	141	1
11	3204	Sade Mısır Gevreği (Corn?akes)	24.28	1.88	0.03	NULL	30	101	1
12	3205	Tam Tahıllı Gevrek	27.40	2.39	1.12	NULL	33	124	1
13	3206	Yulaf Ezmesi	13.40	3.20	1.26	NULL	20	73	1
14	3207	Patates	17.49	2.05	0.09	NULL	100	77	1
15	3208	İnek Sütü(Tam Yağlı)	8.64	5.67	5.85	NULL	200.00	110	2

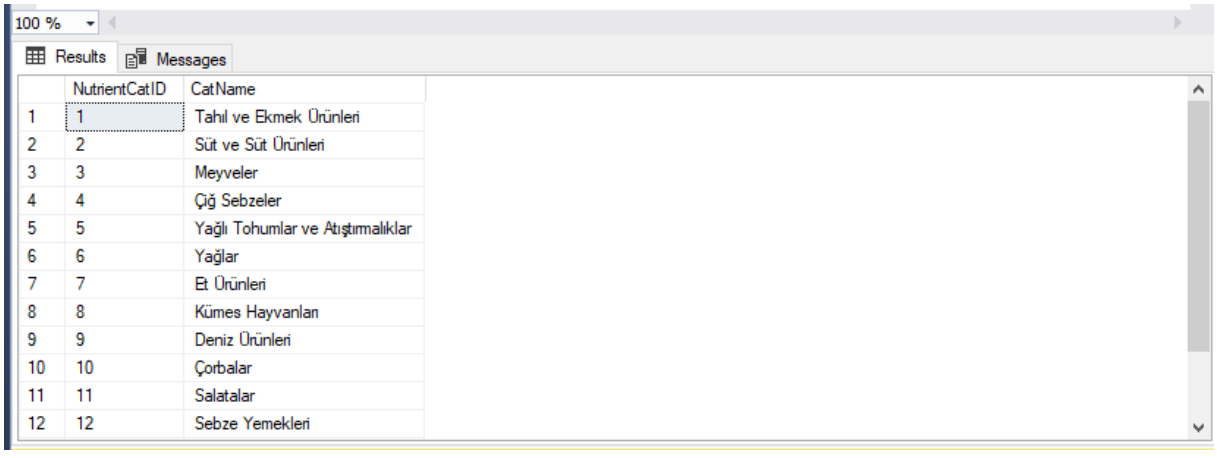
NutrientCat: Nutrients will be classified in categories like milk products, meats, legumes, cereals, fruits and vegetables. This classification will be kept in NutrientCat table.

1	NutrientCatID	int
2	CatName	nvarchar(50)

Keys:

Every NutrientCat has a NutrientCatID which is primary key.

Figure 5 Records In NutrientCat Table:



	NutrientCatID	CatName
1	1	Tahıl ve Ekmek Ürünleri
2	2	Süt ve Süt Ürünleri
3	3	Meyveler
4	4	Çiğ Sebzeler
5	5	Yağlı Tohumlar ve Atıştırmalıklar
6	6	Yağlar
7	7	Et Ürünleri
8	8	Kümes Hayvanları
9	9	Deniz Ürünleri
10	10	Çorbalar
11	11	Salatalar
12	12	Sebze Yemekleri

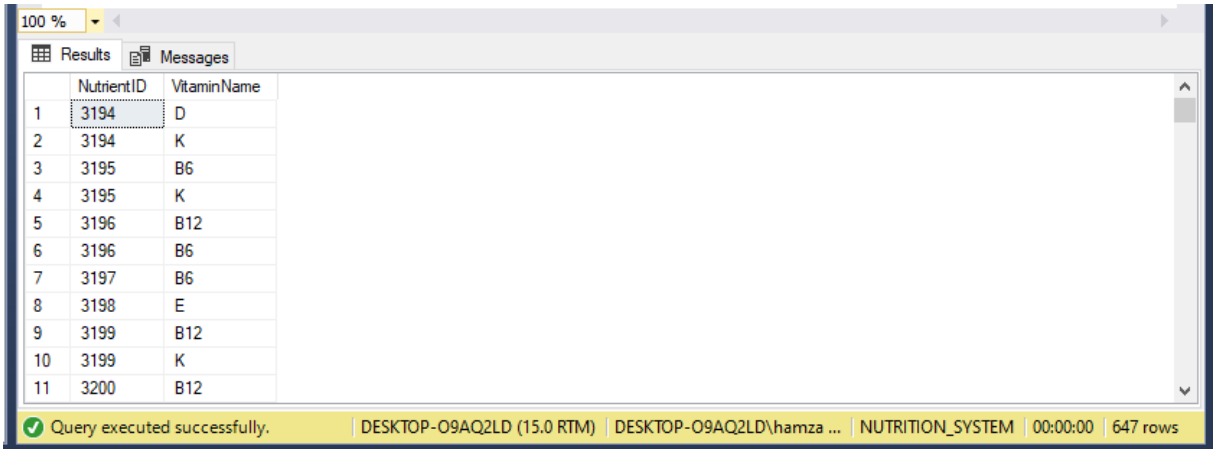
Vitamin: Vitamin is Multivalued attribute of Nutrient entity. So that new table is assigned to keep vitamins that nutrients have

1	NutrientID	int
2	VitaminName	nvarchar(5)

Keys:

NutrientID is a foreign key referring NutrientID column in Nutrient table.

Figure 6 Records In Vitamin Table:



	NutrientID	VitaminName
1	3194	D
2	3194	K
3	3195	B6
4	3195	K
5	3196	B12
6	3196	B6
7	3197	B6
8	3198	E
9	3199	B12
10	3199	K
11	3200	B12

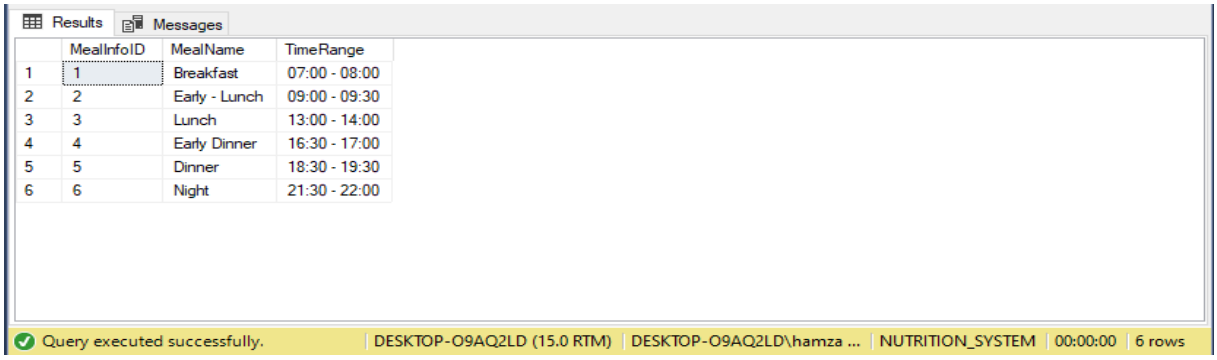
MealInfo: Meal Info table will keep info relating meal's names and their times

1	MealInfoID	int
2	MealName	nvarchar(50)
3	TimeRange	nvarchar(50)

Keys:

Every Meal has a MealInfoID which is a primary key.

Figure 7 Records In MealInfo Table:



	MealInfoID	MealName	TimeRange
1	1	Breakfast	07:00 - 08:00
2	2	Early - Lunch	09:00 - 09:30
3	3	Lunch	13:00 - 14:00
4	4	Early Dinner	16:30 - 17:00
5	5	Dinner	18:30 - 19:30
6	6	Night	21:30 - 22:00

DietProgram: Diet programs are special programs that are scheduled by nutritionists to clients

1	ProgramID	int
2	ClientID	int
3	StartDate	smalldatetime
4	EndDate	smalldatetime
5	note	nvarchar(max)
6	IsActive	bit

Keys:

Every Program has a ProgramID which is primary key.

ClientIDis a foreign key referring ClientIDcolumn in Clienttable.

Figure 8 Records In DietProgram Table:

Results Messages

	ProgramID	ClientID	StartDate	EndDate	note	IsActive
1	1	17	2021-09-23 00:00:00	2022-03-23 00:00:00	NULL	1
2	2	18	2021-10-12 00:00:00	2022-04-12 00:00:00	NULL	1
3	3	19	2021-08-26 00:00:00	2022-02-26 00:00:00	NULL	1
4	4	21	2021-09-13 00:00:00	2022-01-13 00:00:00	NULL	1
5	5	22	2020-11-20 00:00:00	2021-03-20 00:00:00	NULL	0
6	6	22	2021-03-20 00:00:00	2021-07-20 00:00:00	NULL	0
7	7	22	2021-07-20 00:00:00	2022-01-20 00:00:00	NULL	1
8	8	23	2020-09-23 00:00:00	2021-04-23 00:00:00	NULL	0
9	9	23	2021-04-23 00:00:00	2021-10-23 00:00:00	NULL	0
10	10	23	2021-04-23 00:00:00	2022-02-23 00:00:00	NULL	1
11	11	25	2021-08-24 00:00:00	2022-01-24 00:00:00	NULL	1

Query executed successfully. | DESKTOP-O9AQ2LD (15.0 RTM) | DESKTOP-O9AQ2LD\hamza ... | NUTRITION_SYSTEM | 00:00:00 | 31 rows

ProgramMeal: Program Meal represents the meal that will be consumed by client in a specific time. Program Meal's consist of Meal Info and Program Meal Details

1	ProgramMealID	int
2	ProgramID	int
3	MealInfoID	int

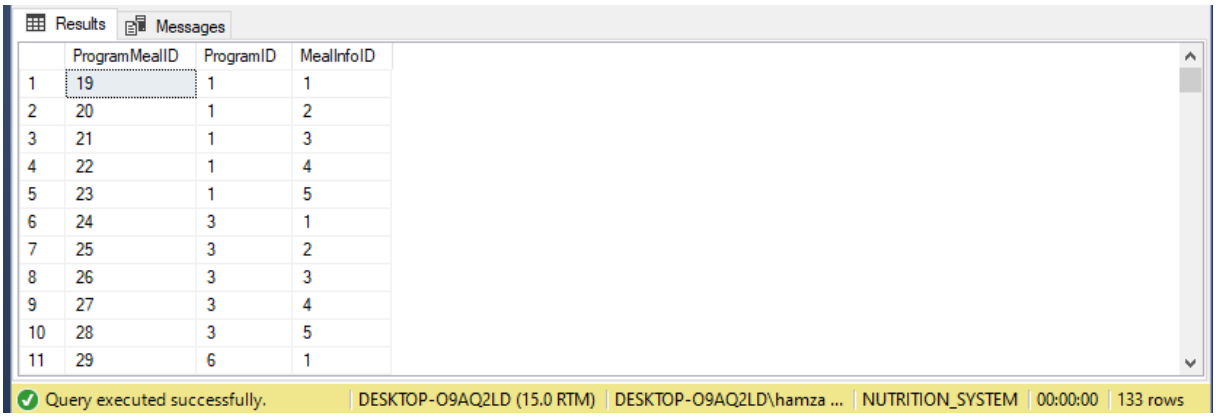
Keys:

Every ProgramMeal has a ProgramMealID which is primary key.

ProgramID is a foreign key referring ProgramID column in DietProgramtable

MealInfoID is a second foreign key referring MealInfoID column in MealInfotable

Figure 9 Records In ProgramMeal Table:



ProgramMealDetail: Program Meal Detail table keeps id of the nutrient that will be consumed in a meal and its amount besides special information like amount of calory it has

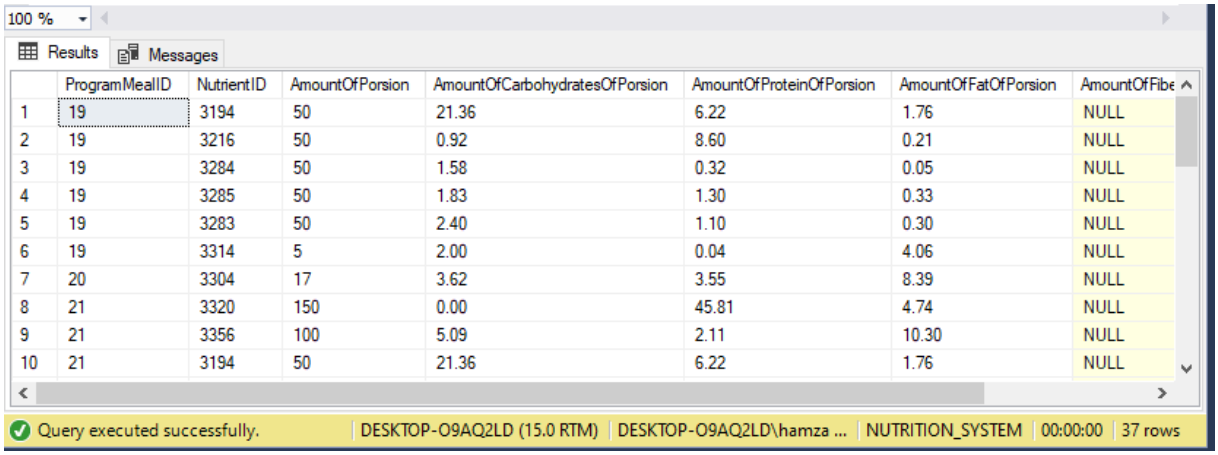
1	ProgramMealID	int
2	NutrientID	int
3	AmountOfPorsion	int
4	AmountOfCarbohydratesOfPorsion	numeric(6,2)
5	AmountOfProteinOfPorsion	numeric(6,2)
6	AmountOfFatOfPorsion	numeric(6,2)
7	AmountOfFiberOfPorsion	numeric(6,2)
8	EnergyKcal	numeric(6,2)

Keys:

ProgramMealIDis a foreign key referring ProgramMealIDcolumn in ProgramMealtable.

NutrientID is a foreign key referring NutrientID column in Nutrienttable.

Figure 10 Records In ProgramMealDetaill Table:



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Results | Messages

	ProgramMealID	NutrientID	AmountOfPorsion	AmountOfCarbohydratesOfPorsion	AmountOfProteinOfPorsion	AmountOfFatOfPorsion	AmountOfFibe
1	19	3194	50	21.36	6.22	1.76	NULL
2	19	3216	50	0.92	8.60	0.21	NULL
3	19	3284	50	1.58	0.32	0.05	NULL
4	19	3285	50	1.83	1.30	0.33	NULL
5	19	3283	50	2.40	1.10	0.30	NULL
6	19	3314	5	2.00	0.04	4.06	NULL
7	20	3304	17	3.62	3.55	8.39	NULL
8	21	3320	150	0.00	45.81	4.74	NULL
9	21	3356	100	5.09	2.11	10.30	NULL
10	21	3194	50	21.36	6.22	1.76	NULL

Query executed successfully. | DESKTOP-O9AQ2LD (15.0 RTM) | DESKTOP-O9AQ2LD\hamza ... | NUTRITION_SYSTEM | 00:00:00 | 37 rows

DailyActivityLevel:

1	LevelID	int
2	LevelName	nvarchar(20)
3	LevelFactor	numeric(3,1)

Keys:

Every Activity Type has a LevelID which is primary key.

Figure 11 Records In DailyActivityLevel Table:

Results | Messages

	LevelID	LevelName	LevelFactor
1	1	VeryPassive	1.2
2	3	Passive	1.4
3	4	Normal	1.6
4	6	Active	1.8
5	7	Very Active	2.0

Query executed successfully. | DESKTOP-O9AQ2LD (15.0 RTM) | DESKTOP-O9AQ2LD\hamza ... | NUTRITION_SYSTEM | 00:00:00 | 5 rows

Daily Feedback: Daily feedback represents the information sent by client to his/her nutritionist every day. This information will contain data like meal photos.

1	FeedbackID	int
2	ClientID	int
3	FeedBackDate	smalldatetime
4	MealPhoto	varchar(max)
5	isOkay	int

Keys:

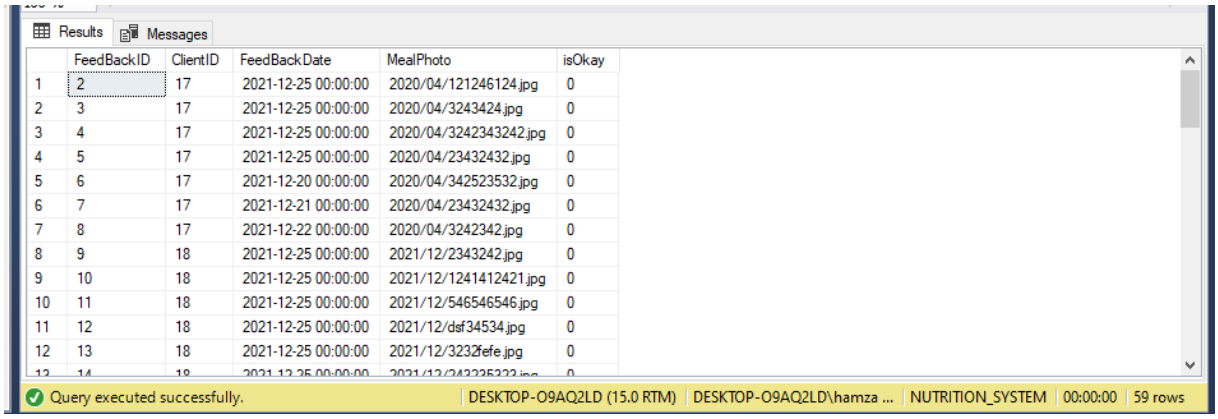
Every daily feedback has a unique feedback id as primary key

Every feedback id has a ClientID as Foreign Key referring to UserID in User table.

Default:

Default value for isOkay column is set as 0 by default.

Figure 12 Records In DailyFeedback Table:



Results | Messages

	FeedBackID	ClientID	FeedBackDate	MealPhoto	isOkay
1	2	17	2021-12-25 00:00:00	2020/04/121246124.jpg	0
2	3	17	2021-12-25 00:00:00	2020/04/3243424.jpg	0
3	4	17	2021-12-25 00:00:00	2020/04/3242343242.jpg	0
4	5	17	2021-12-25 00:00:00	2020/04/23432432.jpg	0
5	6	17	2021-12-20 00:00:00	2020/04/342523532.jpg	0
6	7	17	2021-12-21 00:00:00	2020/04/23432432.jpg	0
7	8	17	2021-12-22 00:00:00	2020/04/3242342.jpg	0
8	9	18	2021-12-25 00:00:00	2021/12/2343242.jpg	0
9	10	18	2021-12-25 00:00:00	2021/12/1241412421.jpg	0
10	11	18	2021-12-25 00:00:00	2021/12/546546546.jpg	0
11	12	18	2021-12-25 00:00:00	2021/12/dsf34534.jpg	0
12	13	18	2021-12-25 00:00:00	2021/12/3232fefe.jpg	0

Query executed successfully. | DESKTOP-O9AQ2LD (15.0 RTM) | DESKTOP-O9AQ2LD\hamza ... | NUTRITION_SYSTEM | 00:00:00 | 59 rows

MonthlyFeedback: Monthly feedback represents the information sent by client to his/her nutritionist every month. This information will contain data like their weights, fat rates and photos from front end back side

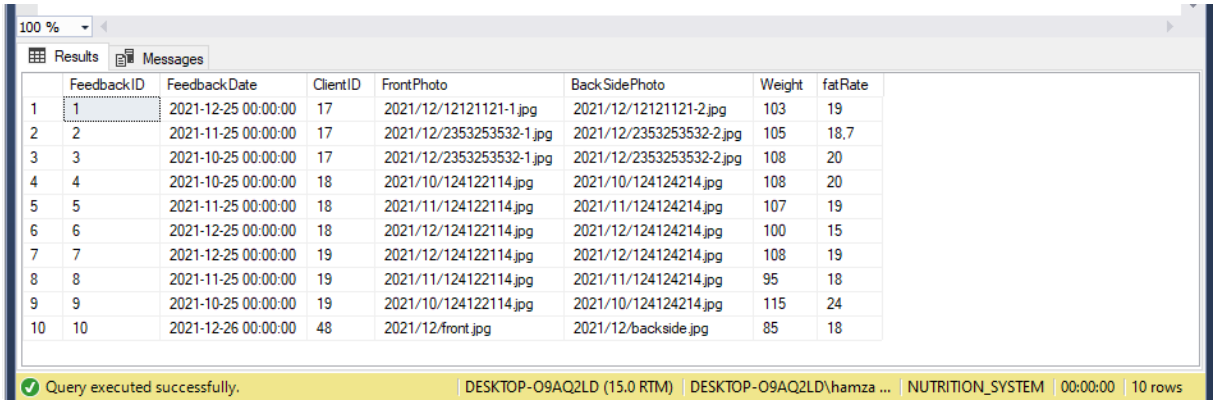
1	FeedbackID	int
2	ClientID	int
3	FeedBackDate	smalldatetime
4	FrontPhoto	varchar(max)
5	BackSidePhoto	varchar(max)
6	Weight	real
7	fatRate	real

Keys:

Every monthly feedback has a unique feedback id as primary key

Every feedback id has a ClientID as Foreign Key referring to UserID in User table.

Figure 13 Records In Monthly Feedback Table:



100 %

Results | Messages

	FeedbackID	FeedbackDate	ClientID	FrontPhoto	BackSidePhoto	Weight	fatRate
1	1	2021-12-25 00:00:00	17	2021/12/12121121-1.jpg	2021/12/12121121-2.jpg	103	19
2	2	2021-11-25 00:00:00	17	2021/12/2353253532-1.jpg	2021/12/2353253532-2.jpg	105	18,7
3	3	2021-10-25 00:00:00	17	2021/12/2353253532-1.jpg	2021/12/2353253532-2.jpg	108	20
4	4	2021-10-25 00:00:00	18	2021/10/124122114.jpg	2021/10/124124214.jpg	108	20
5	5	2021-11-25 00:00:00	18	2021/11/124122114.jpg	2021/11/124124214.jpg	107	19
6	6	2021-12-25 00:00:00	18	2021/12/124122114.jpg	2021/12/124124214.jpg	100	15
7	7	2021-12-25 00:00:00	19	2021/12/124122114.jpg	2021/12/124124214.jpg	108	19
8	8	2021-11-25 00:00:00	19	2021/11/124122114.jpg	2021/11/124124214.jpg	95	18
9	9	2021-10-25 00:00:00	19	2021/10/124122114.jpg	2021/10/124124214.jpg	115	24
10	10	2021-12-26 00:00:00	48	2021/12/front.jpg	2021/12/backside.jpg	85	18

Query executed successfully. | DESKTOP-O9AQ2LD (15.0 RTM) | DESKTOP-O9AQ2LD\hamza ... | NUTRITION_SYSTEM | 00:00:00 | 10 rows

Views

We built 5 number of views in our database:

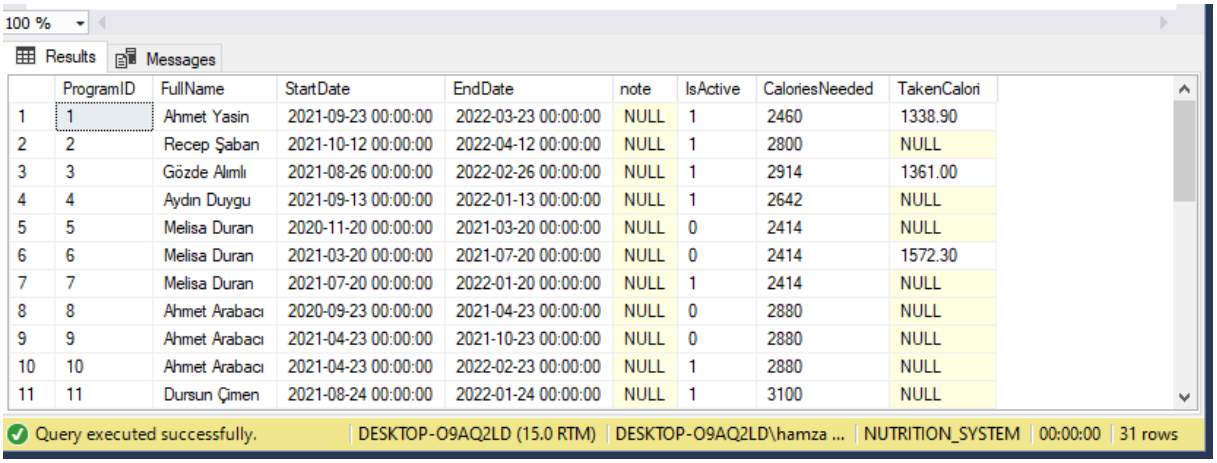
These are:

- v_ClientListsCalories
- v_detailOfClients
- v_detailOfNutritionist
- v_showFeedbackOfUser
- v_summaryOfNutrients

1. v_ClientListsCalories

We list the user information by combining the User table and the Client table, in addition to this, we add the amount of calories that the user should take (CaloriesNeeded), then find the meals in the active diet list of that user and calculate the total list calories (TakenCalories) from the foods in the list.

Figure: View - v_ClientListsCalories



100 %

Results | Messages

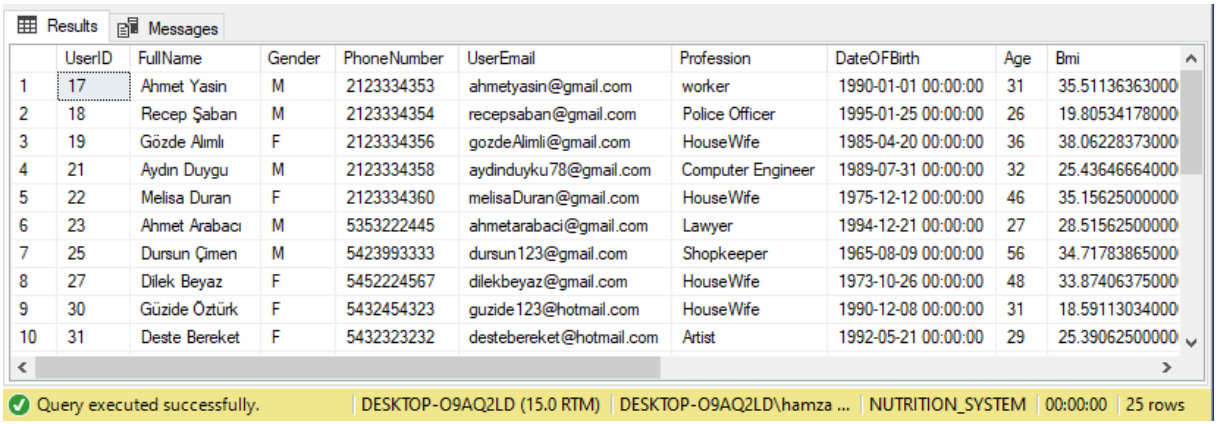
	ProgramID	FullName	StartDate	EndDate	note	IsActive	CaloriesNeeded	TakenCalori
1	1	Ahmet Yasin	2021-09-23 00:00:00	2022-03-23 00:00:00	NULL	1	2460	1338.90
2	2	Recep Şaban	2021-10-12 00:00:00	2022-04-12 00:00:00	NULL	1	2800	NULL
3	3	Gözde Alımlı	2021-08-26 00:00:00	2022-02-26 00:00:00	NULL	1	2914	1361.00
4	4	Aydın Duygu	2021-09-13 00:00:00	2022-01-13 00:00:00	NULL	1	2642	NULL
5	5	Melisa Duran	2020-11-20 00:00:00	2021-03-20 00:00:00	NULL	0	2414	NULL
6	6	Melisa Duran	2021-03-20 00:00:00	2021-07-20 00:00:00	NULL	0	2414	1572.30
7	7	Melisa Duran	2021-07-20 00:00:00	2022-01-20 00:00:00	NULL	1	2414	NULL
8	8	Ahmet Arabacı	2020-09-23 00:00:00	2021-04-23 00:00:00	NULL	0	2880	NULL
9	9	Ahmet Arabacı	2021-04-23 00:00:00	2021-10-23 00:00:00	NULL	0	2880	NULL
10	10	Ahmet Arabacı	2021-04-23 00:00:00	2022-02-23 00:00:00	NULL	1	2880	NULL
11	11	Dursun Çimen	2021-08-24 00:00:00	2022-01-24 00:00:00	NULL	1	3100	NULL

Query executed successfully. | DESKTOP-O9AQ2LD (15.0 RTM) | DESKTOP-O9AQ2LD\hamza ... | NUTRITION_SYSTEM | 00:00:00 | 31 rows

2. v_detailOfClients

We joined the Client table and the User table and gathered all the Client related information in one table. By doing that we aimed to reach information such as gender.

Figure: View - v_detailsOfClients



Results | Messages

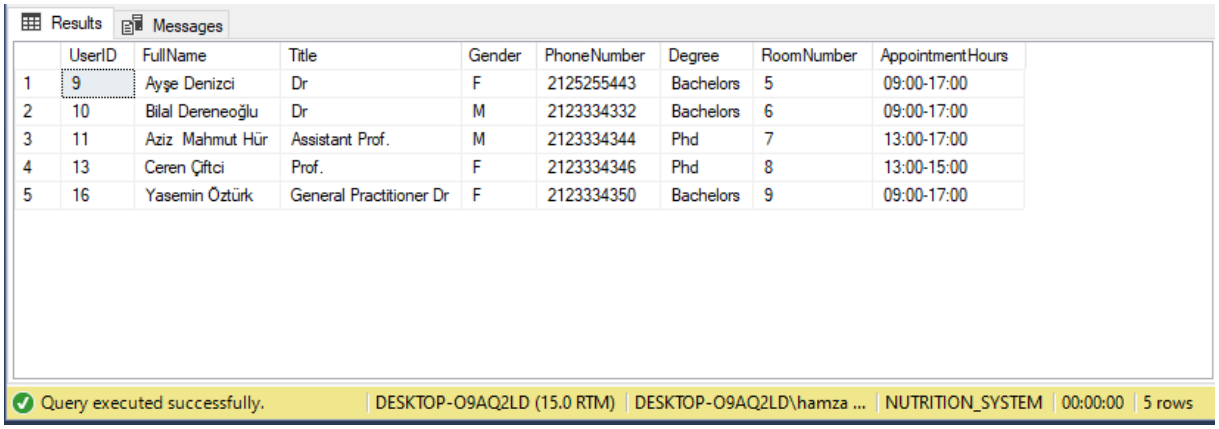
	UserID	FullName	Gender	PhoneNumber	UserEmail	Profession	DateOFBirth	Age	Bmi
1	17	Ahmet Yasin	M	2123334353	ahmetyasin@gmail.com	worker	1990-01-01 00:00:00	31	35.51136363000
2	18	Recep Şaban	M	2123334354	recepsaban@gmail.com	Police Officer	1995-01-25 00:00:00	26	19.80534178000
3	19	Gözde Alımlı	F	2123334356	gozdeAlimli@gmail.com	HouseWife	1985-04-20 00:00:00	36	38.06228373000
4	21	Aydın Duygu	M	2123334358	aydinduyku78@gmail.com	Computer Engineer	1989-07-31 00:00:00	32	25.43646664000
5	22	Melisa Duran	F	2123334360	melisaDuran@gmail.com	HouseWife	1975-12-12 00:00:00	46	35.15625000000
6	23	Ahmet Arabacı	M	5353222445	ahmetarabaci@gmail.com	Lawyer	1994-12-21 00:00:00	27	28.51562500000
7	25	Dursun Çimen	M	5423993333	dursun123@gmail.com	Shopkeeper	1965-08-09 00:00:00	56	34.71783865000
8	27	Dilek Beyaz	F	5452224567	dilekbeyaz@gmail.com	HouseWife	1973-10-26 00:00:00	48	33.87406375000
9	30	Güzide Öztürk	F	5432454323	guzide123@hotmail.com	HouseWife	1990-12-08 00:00:00	31	18.59113034000
10	31	Deste Bereket	F	5432323232	destebereket@hotmail.com	Artist	1992-05-21 00:00:00	29	25.39062500000

Query executed successfully. | DESKTOP-O9AQ2LD (15.0 RTM) | DESKTOP-O9AQ2LD\hamza ... | NUTRITION_SYSTEM | 00:00:00 | 25 rows

3. v_detailOfNutritionist

We joined the Nutritionist table and the User table and gathered all the Nutritionist related information in one table.

Figure: View - v_detailOfNutritionist



Results | Messages

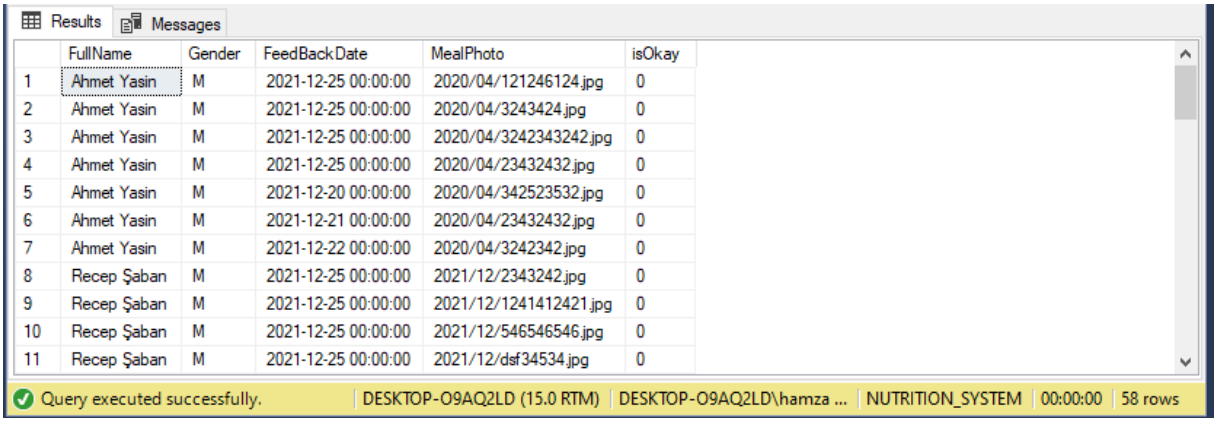
	UserID	FullName	Title	Gender	PhoneNumber	Degree	RoomNumber	AppointmentHours
1	9	Ayşe Denizci	Dr	F	2125255443	Bachelors	5	09:00-17:00
2	10	Bilal Dereneoğlu	Dr	M	2123334332	Bachelors	6	09:00-17:00
3	11	Aziz Mahmut Hür	Assistant Prof.	M	2123334344	Phd	7	13:00-17:00
4	13	Ceren Çiftci	Prof.	F	2123334346	Phd	8	13:00-15:00
5	16	Yasemin Öztürk	General Practitioner Dr	F	2123334350	Bachelors	9	09:00-17:00

Query executed successfully. | DESKTOP-O9AQ2LD (15.0 RTM) | DESKTOP-O9AQ2LD\hamza ... | NUTRITION_SYSTEM | 00:00:00 | 5 rows

4. v_showFeedbackOfUser

Here we list the feedback sent by the clients. We can see which client shared his/her meal and when, and the photo she/he sent us. And in the last line, we see whether the meal was approved or not by the dietitians in the photo she/he sent us.

Figure: View - v_showFeedbackOfUser



Results | Messages

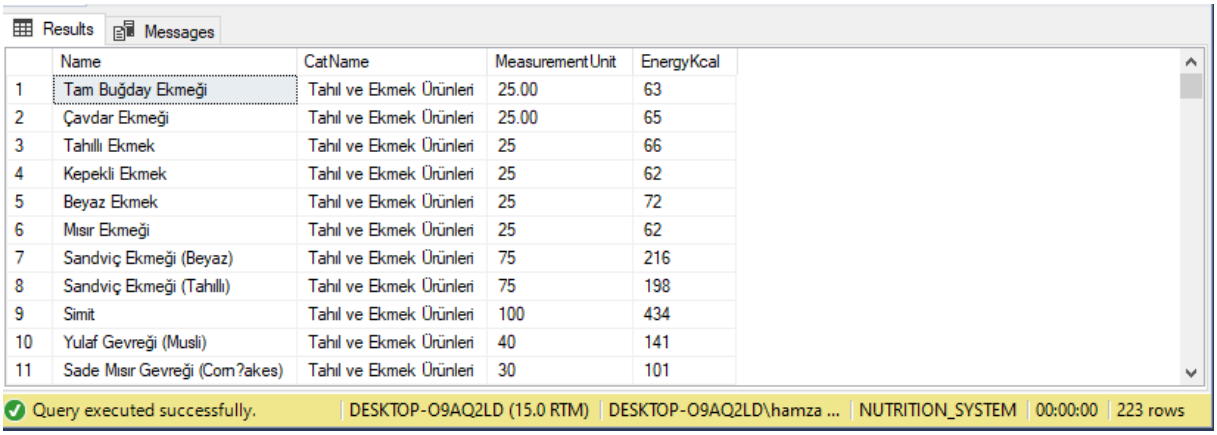
	FullName	Gender	FeedBackDate	MealPhoto	isOkay
1	Ahmet Yasin	M	2021-12-25 00:00:00	2020/04/121246124.jpg	0
2	Ahmet Yasin	M	2021-12-25 00:00:00	2020/04/3243424.jpg	0
3	Ahmet Yasin	M	2021-12-25 00:00:00	2020/04/3242343242.jpg	0
4	Ahmet Yasin	M	2021-12-25 00:00:00	2020/04/23432432.jpg	0
5	Ahmet Yasin	M	2021-12-20 00:00:00	2020/04/342523532.jpg	0
6	Ahmet Yasin	M	2021-12-21 00:00:00	2020/04/23432432.jpg	0
7	Ahmet Yasin	M	2021-12-22 00:00:00	2020/04/3242342.jpg	0
8	Recep Şaban	M	2021-12-25 00:00:00	2021/12/2343242.jpg	0
9	Recep Şaban	M	2021-12-25 00:00:00	2021/12/1241412421.jpg	0
10	Recep Şaban	M	2021-12-25 00:00:00	2021/12/546546546.jpg	0
11	Recep Şaban	M	2021-12-25 00:00:00	2021/12/dsf34534.jpg	0

Query executed successfully. | DESKTOP-O9AQ2LD (15.0 RTM) | DESKTOP-O9AQ2LD\hamza ... | NUTRITION_SYSTEM | 00:00:00 | 58 rows

5. v_summaryOfNutrients

Our nutrient summary table shows the nutrient name, category, unit, and the calorie content of that unit.

Figure: View - v_summaryOfNutrients



Results | Messages

	Name	CatName	MeasurementUnit	EnergyKcal
1	Tam Buğday Ekmeği	Tahıl ve Ekmek Ürünleri	25.00	63
2	Çavdar Ekmeği	Tahıl ve Ekmek Ürünleri	25.00	65
3	Tahıllı Ekmek	Tahıl ve Ekmek Ürünleri	25	66
4	Kepekli Ekmek	Tahıl ve Ekmek Ürünleri	25	62
5	Beyaz Ekmek	Tahıl ve Ekmek Ürünleri	25	72
6	Mısır Ekmeği	Tahıl ve Ekmek Ürünleri	25	62
7	Sandviç Ekmeği (Beyaz)	Tahıl ve Ekmek Ürünleri	75	216
8	Sandviç Ekmeği (Tahıllı)	Tahıl ve Ekmek Ürünleri	75	198
9	Simit	Tahıl ve Ekmek Ürünleri	100	434
10	Yulaf Gevreği (Musli)	Tahıl ve Ekmek Ürünleri	40	141
11	Sade Mısır Gevreği (Com?akes)	Tahıl ve Ekmek Ürünleri	30	101

Query executed successfully. | DESKTOP-O9AQ2LD (15.0 RTM) | DESKTOP-O9AQ2LD\hamza ... | NUTRITION_SYSTEM | 00:00:00 | 223 rows

Triggers

We built 2 number of triggers which are

- tg_calculateBMH in Client Table
- tg_ConvertToPassMD5 in User Table

1. tg_calculateBMH

We built this trigger to calculate both **Basal Metabolic Rate and needed calory value (CaloriesNeeded)** of clients using their weight and height values. If an insertion or update happens on the Client table this trigger immediately works and calculates **BMR**using below two formulas:

$$BMR = 10 * Weight + 6.25 * Height - 5 * Age + 5 \text{ (for Men)}$$

$$BMR = 10 * Weight + 6.25 * Height - 5 * Age - 161 \text{ (for Women)}$$

Since our calculation depends on gender we need both User and Clients table to calculate this value. (BMR calculation differs between man and woman). On account of the fact that we prefered to create a trigger rather than using calculated columns.

After calculating and updating BMH column the trigger calculates and updates Calories Needed column for inserted row.

This calculation is done via formula of:

$$Calory = BMR * ActivityFactor$$

Here we use Daily Activity Level table holding records for activity levels and their factors. We have 5 number of activity levels in this table which are:

- very passive(activity factor=1.2),
- passive (activity factor=1.4),
- normal (activity factor=1.6)
- active (activity factor =1.8)
- very active(activity factor=2.0)

We join Daily Activity Level table and Client table and then get relating activity factor value and then multiply it with pre-calculated BMR value to calculate needed amount of calories by the Client.

Code:

```
ALTER trigger [dbo].[tg_calculateBMH] on [dbo].[Client]
after insert,update
as
begin

    update c
    Set BMH= case when u.Gender='M'then 10*i.weight+6.25*i.Height-5*(datediff(year,i.DateOfBirth,getdate()))+5
    else 10*i.weight+6.25*i.Height-5*(datediff(year,i.DateOfBirth,getdate()))-161 end
    From Client c, inserted i, [User] u
    Where c.ClientID=i.ClientID and c.ClientID=u.UserID

    update c
    Set CaloriesNeeded= c.BMH*d.LevelFactor
    From Client c, inserted i, DailyActivityLevel d
    Where c.ClientID=i.ClientID and d.LevelID=i.DailyActivityLevelID


end
```

2. **tg_ConvertToPassMD5**

This trigger is built to ensure users security. It runs if an insertion or update happens on the User table. It converts the password of User into MD5 encryption format.

Code:

```
GO

ALTER TRIGGER [dbo].[tg_ConvertToPassMD5] ON [dbo].[User]
AFTER INSERT,UPDATE
AS
BEGIN
    UPDATE U SET U.Password = CONVERT(VARCHAR(32), HashBytes('MD5', U.Password), 2)
    FROM [User] U,Inserted I WHERE U.UserID = I.UserID
END
```

Stored Procedure

We build 10 number of stored procedures.

Which are:

1. sp_CalculateTakenCalories
2. sp_AddNutrientToProgramMeal
3. sp_AddNutrientWithVitamins
4. sp_AddNewClient
5. sp_AddNewNutritionist
6. sp_CalculateSuccessRate
7. sp_CreateDietProgram
8. sp_getWeightLoss
9. sp_AddDailyFeedBack
10. sp_AddMonthlyFeedBack

1. sp_CalculateTakenCalories

Definition:

With this procedure we are calculating amount of calories taken by client by consuming nutrients which are given in their diet programs.

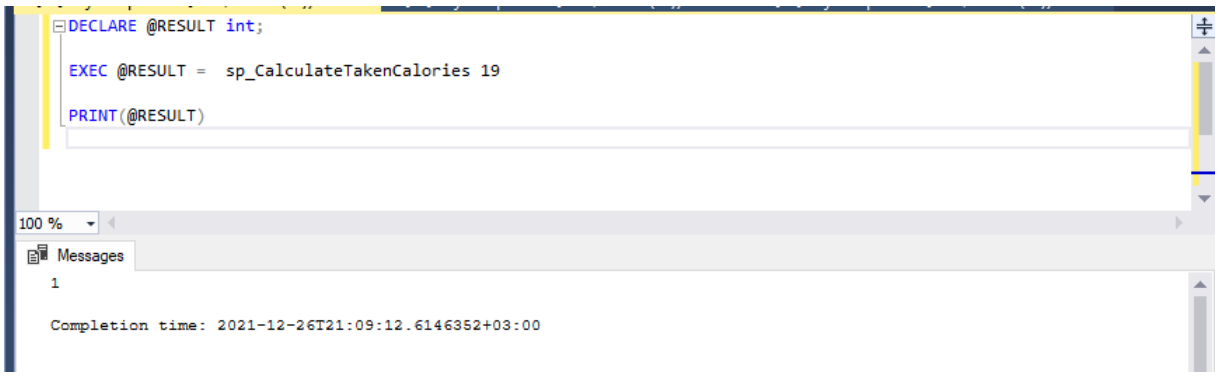
It takes (@ProgramMealID) as a parameter.

Using @ProgramMealID, we find the programID and the client of that program and reach the amount of calories that should be taken.

Then, using the programID parameter we found above, we reach all the meals belonging to that program and collect their calorie amounts.

If the amount of calories taken is less than the required amount, it returns us as isOkay = 1, if it is more, it returns 0 as a warning.

For exec:



Code:

```
ALTER PROCEDURE [dbo].[sp_CalculateTakenCalories]
(@ProgramMealID int)
AS
Declare @CaloriesNeeded int
Declare @ProgramID int;
Declare @CaloriTaken int = 0;
Declare @isOkay int = 0;

  SELECT @CaloriesNeeded= CL.CaloriesNeeded, @ProgramID= DP.ProgramID
  FROM ProgramMeal PM INNER JOIN DietProgram DP ON PM.ProgramID = DP.ProgramID INNER JOIN Client CL ON
  DP.ClientID = CL.ClientID
  WHERE PM.ProgramMealID = @ProgramMealID

  SELECT @CaloriTaken = SUM(EnergyKcal) FROM ProgramMealDetail PMD
  WHERE PMD.ProgramMealID IN (SELECT ProgramMealID FROM ProgramMeal WHERE ProgramID = @ProgramID)

  IF CASE WHEN @CaloriTaken IS NULL THEN 0 ELSE @CaloriTaken END < @CaloriesNeeded
  set @isOkay = 1;
  else
  set @isOkay = 0;

  Return @isOkay
```

2. sp_ AddNutrientToProgramMeal

Definition:

It takes (@ProgramMealID,@NutrientID,@Amount) as a parameter.

First of all, we used procedure inside procedure.
In EXEC @return_value = sp_CalculateTakenCalories @programMealID we check to see if we have exceeded calories before adding nutrients to the list.

If we have not exceeded the calorie calorie count, we use the entered nutrient id (@NutrientID) to fetch the values from the nutrient table (such as calorie amount, fat rate, fiber rate, unit of measure).

We have compared the amount (@Amount) we entered with the unit of measure of the food we want to add.

For example, the value of bread is 100 calories per 50 grams in our nutrient table, and when we enter the amount of 100, we get 100/50 = 2, and when adding the bread to the ProgramMealDetail table, we multiply all the values by 2. (100 grams of bread added as 200 calories).

For Exec: `EXEC sp_AddNutrientToProgramMeal 150,3199,100`

Code:

```
ALTER procedure [dbo].[sp_AddNutrientToProgramMeal]
@programMealID int, @NutrientID int, @Amount numeric
AS
BEGIN

    DECLARE @return_value int
    EXEC    @return_value =  sp_CalculateTakenCalories @programMealID

    IF @return_value > 0
    BEGIN
        Declare @birim2 numeric(4,1);
       set @birim2 = (SELECT N.MeasurementUnit FROM Nutrient N WHERE N.NutrientID = @NutrientID)
       set @birim2 = (@Amount / @birim2)

       INSERT INTO ProgramMealDetail (ProgramMealID,NutrientID,AmountOfPorsion,AmountOfCarbohydratesOfPorsion,
       AmountOfProteinOfPorsion,AmountOfFatOfPorsion,AmountOfFiberOfPorsion,EnergyKcal)
       SELECT @programMealID,@NutrientID, @Amount,N.AmountOfCarbohydrates*@birim2,N.AmountOfProtein*@birim2,N.AmountOfFat*@bi
       FROM  Nutrient N WHERE N.NutrientID = @NutrientID
    END
    ELSE
    BEGIN
         RAISERROR ('Kalori Sınırı Aşıldı.!', 1, 1)
    END


END
```

3. sp_AddNutrientWithVitamins

Definition:

Nutrients serve to add nutrients to our table.

It takes @Name, @CarbonHydrates, @Protein, @Fat, @Fiber, @Unit, @Kcal, @CatID, @VitaminList as parameters.

Before doing some checks.

- The @CatID we sent checks whether there is such a category, and if there is, it continues the process.

- It checks if there is a previously added food in the same category with a similar name.

If the above two operations are okay, they add to the Nutrient table.

Then, @VitaminList, which it takes as the last parameter, takes the vitamins of that food in the form of a list.

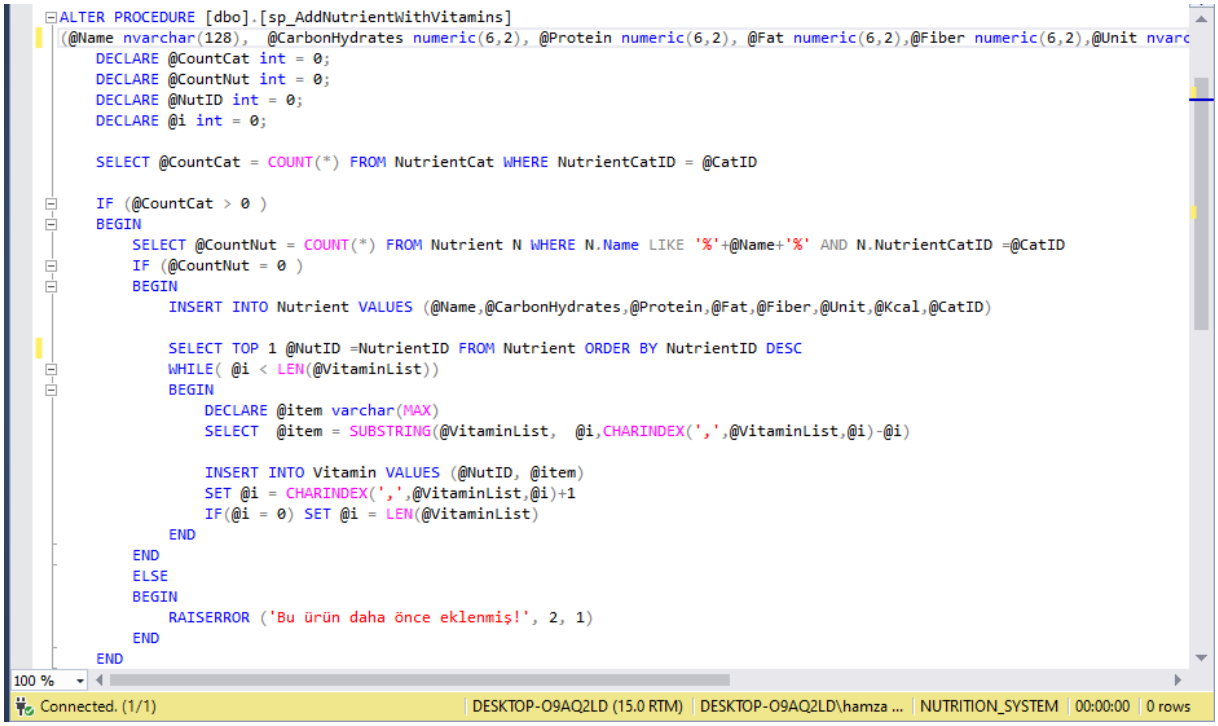
For Example 'A,B,C,B12'.

We save these entered vitamins one by one with the NutrientID we added with the help of cursor and while loop.

For Exec:

```
EXEC sp_AddNutrientWithVitamins 'Sütlü Çikolata', 100,12,15,34,50,145,1, 'A,B,C,12'
```

Code:



```
ALTER PROCEDURE [dbo].[sp_AddNutrientWithVitamins]
(@Name nvarchar(128),  @CarbonHydrates numeric(6,2), @Protein numeric(6,2), @Fat numeric(6,2),@Fiber numeric(6,2),@Unit nvarc
    DECLARE @CountCat int = 0;
    DECLARE @CountNut int = 0;
    DECLARE @NutID int = 0;
    DECLARE @i int = 0;

    SELECT @CountCat = COUNT(*) FROM NutrientCat WHERE NutrientCatID = @CatID

    IF (@CountCat > 0 )
    BEGIN
        SELECT @CountNut = COUNT(*) FROM Nutrient N WHERE N.Name LIKE '%'+@Name+'%' AND N.NutrientCatID =@CatID
        IF (@CountNut = 0 )
        BEGIN
            INSERT INTO Nutrient VALUES (@Name,@CarbonHydrates,@Protein,@Fat,@Fiber,@Unit,@Kcal,@CatID)

            SELECT TOP 1 @NutID =NutrientID FROM Nutrient ORDER BY NutrientID DESC
            WHILE( @i < LEN(@VitaminList))
            BEGIN
                DECLARE @item varchar(MAX)
                SELECT  @item = SUBSTRING(@VitaminList,  @i,CHARINDEX(',',@VitaminList,@i)-@i)

                INSERT INTO Vitamin VALUES (@NutID, @item)
                SET @i = CHARINDEX(',',@VitaminList,@i)+1
                IF(@i = 0) SET @i = LEN(@VitaminList)
            END
        END
        ELSE
        BEGIN
            RAISERROR ('Bu ürün daha önce eklenmiş!', 2, 1)
        END
    END
```


4. sp_AddNewClient

Definition

Our purpose in this procedure is to be able to add both the user table and the client table at the same time when we want to add a new client to the system.

With the user information given here, **UserType='C'** is added to the User table, then we find that UserID and make the necessary additions to the Client table and complete the customer addition.

For Exec:

```
EXEC sp_AddNewClient 9,'Aydın
Duygu','M','5366984512','123456','temp123@email.com'
,'Öğrenci',85,180,70,19,'05/05/1997','12/12/2021','01/03/2022','no',1,2
```

Code:

```
ALTER PROCEDURE [dbo].[sp_AddNewClient]
(@NutritionistID int,
@FullName nvarchar(30), @Gender char(1),
@PhoneNumber nvarchar(20),@Password nvarchar(20),
@UserEmail nvarchar(50),@Profession nvarchar(25),
@weight numeric(5,1),@height int,
@targetWeight numeric(5,1),@fatRate  numeric(5,2),
@birthDate smalldatetime,@startDate smalldatetime,
@endDate smalldatetime,@history nvarchar(50),
@isActive bit,@dailyActivityLevel int)AS

DECLARE @result int
DECLARE @userID int

INSERT INTO [User] VALUES ('C', @FullName, @Gender,@PhoneNumber,@Password,@UserEmail)
SELECT TOP 1 @userID = UserID FROM [User] ORDER BY UserID DESC

INSERT INTO Client
(ClientID,NutritionistID,Profession,Weight,Height,TargetWeight,FatRate,DateOFBirth,StartDateOfRegistration,
EndDateOfRegistration,MedicalHistory,IsActive)
VALUES
(@userID,@NutritionistID,@Profession,@weight,@height,@targetWeight,@fatRate,@birthDate,@startDate,
@endDate,@history,@isActive)

IF @@ERROR = 0
     SET @result  = 1
  ELSE SET @result = 0
RETURN @result
```

100 %

Connected. (1/1) | DESKTOP-O9AQ2LD (15.0 RTM) | DESKTOP-O9AQ2LD\hamza ... | NUTRITION_SYSTEM | 00:00:00 | 0 rows

5. sp_ AddNewNutritionist

Definition

Our goal with this procedure is to add a new dietitian to the system, to add to both the user table and the dietitian table at the same time.

With the user information given here, UserType='N' is added to the User table, then we find that UserID and make the necessary additions to the Nutrient table and complete the addition from the dietitian.

For Exec:

```
EXEC sp_AddNewNutritionist 'Müge
Bayat','F','55555555','5987458','mugbe@hotmail.com','Uzman','Lisans',101,'09:00-17:00'
```

Code:

```
ALTER PROCEDURE [dbo].[sp_AddNewNutritionist]
(@Fullname nvarchar(30), @Gender char(1),@PhoneNumber nvarchar(30),@Password nvarchar(30),@UserEmail nvarchar(50),
@Title nvarchar(25),@Degree nvarchar(25),@RoomNumber int,@AppointmentHours char(11))
AS
Declare @AddedUserID int
Declare @result int

INSERT INTO [User] VALUES ('N',@Fullname,@Gender,@PhoneNumber,@Password,@UserEmail)

SELECT TOP 1 @AddedUserID = UserID FROM [User] ORDER BY UserID DESC

INSERT INTO Nutritionist VALUES (@AddedUserID,@Title,@Degree,@RoomNumber,@AppointmentHours)

IF @@ERROR = 0
     SET @result  = 1
  ELSE SET @result = 0
RETURN @result
```

6. sp_CalculateSuccessRate

Definition

We give ClientID, StartDate, EndDate to calculate the success rate.
We find the difference in days between the 2 given dates.

For example: 5 days

Then, with ClientID, we find the active diet program of that user and find out how many meals she/he has in a day.

For Example: Like morning, before noon, lunch, dinner - 4 Meals

Concluding from 5 * 4 that she/he should have 20 meals in 5 days, we go to the dailyFeedBack table and do the following check.

How many feedbacks did our client, who needs to make a total of 20 meals in 5 days, give us?

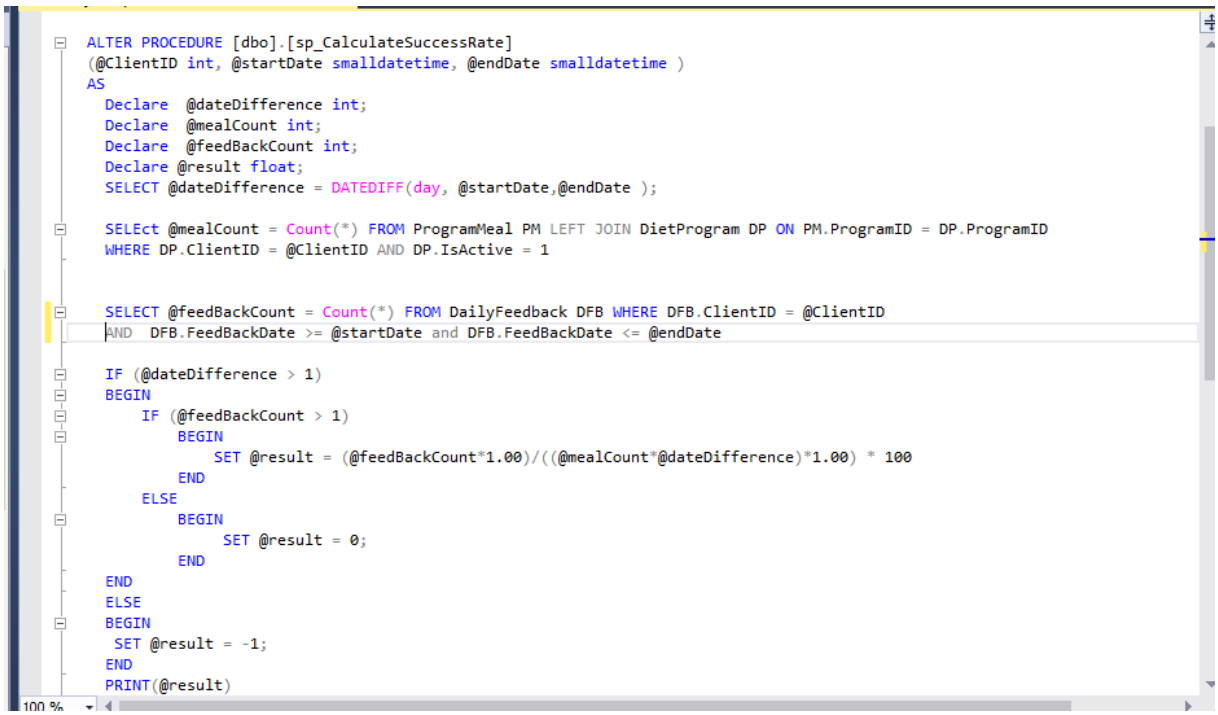
For example, assuming she/he have 10 feedbacks

We achieve 50% success rate from (10/(5*4))*100 transactions.

For Exec:

```
EXEC sp_CalculateSuccessRate 17,'12/20/2021','12/24/2021'
```

Code:



```
ALTER PROCEDURE [dbo].[sp_CalculateSuccessRate]
(@ClientID int, @startDate smalldatetime, @endDate smalldatetime )
AS
  Declare  @dateDifference int;
  Declare  @mealCount int;
  Declare  @feedBackCount int;
  Declare @result float;
  SELECT @dateDifference = DATEDIFF(day, @startDate,@endDate );

  SELEct @mealCount = Count(*) FROM ProgramMeal PM LEFT JOIN DietProgram DP ON PM.ProgramID = DP.ProgramID
  WHERE DP.ClientID = @ClientID AND DP.IsActive = 1


  SELECT @feedBackCount = Count(*) FROM DailyFeedback DFB WHERE DFB.ClientID = @ClientID
  AND  DFB.FeedBackDate >= @startDate and DFB.FeedBackDate <= @endDate

  IF (@dateDifference > 1)
  BEGIN
      IF (@feedBackCount > 1)
          BEGIN
              SET @result = (@feedBackCount*1.00)/((@mealCount*@dateDifference)*1.00) * 100
          END
      ELSE
          BEGIN
               SET @result = 0;
          END
  END
  ELSE
  BEGIN
   SET @result = -1;
  END
  PRINT(@result)
```

7. sp_CreateDietProgram

Definition

While creating a diet list, we create a program from the DietProgram table and then add its meanings to the ProgramMeal table with this program id.

Here, we can create a program in a short way by specifying the ClientId, start and end date, note, whether it can be active and meals in bits.

Our meal shortcodes:

```
/*
     @B - Breakfast
     @EL - BEarly - Lunch
     @L - Lunch
     @ED - Early Dinner
     @D - Dinner
     @N - Night
*/
```

Even if the added program is actively added (@IsActive=1), we disable the old programs in that clientID by making them 0.

For Exec: `EXEC sp_CreateDietProgram 49,'12-12-2021','01-02-2022','NO NOTE',1,1,0,1,1,1,0`

Code: (not all)

```
ALTER PROCEDURE [dbo].[sp_CreateDietProgram]
(@ClientID int,@StartDate smalldatetime, @EndDate smallDateTime, @note nvarchar(max),@IsActive bit,
@B bit,@EL bit, @L bit, @ED bit, @D bit, @N bit

/*
  @B - Breakfast ,@EL -BEarly - Lunch
  @L - Lunch, @ED -Early Dinner ,@D-  Dinner, @N- Night
*/
)AS

DECLARE @AddedProgramID int
  IF(@IsActive = 1)
  BEGIN
  --eski programlarını pasif yapıyor
  UPDATE DietProgram SET IsActive = 0 WHERE ClientID = @ClientID
  END
  --yeni ekliyor
  INSERT INTO DietProgram VALUES(@ClientID,@StartDate,@EndDate,@note,@IsActive)

   SELECT TOP 1 @AddedProgramID = ProgramID FROM DietProgram ORDER BY ProgramID DESC
  IF (@B ='True')
  BEGIN
      INSERT INTO ProgramMeal VALUES (@AddedProgramID ,1)
  END

  IF (@EL ='True')
  BEGIN
      INSERT INTO ProgramMeal VALUES (@AddedProgramID ,2)
```

100 %

Messages

8. sp_AddDailyFeedBack

Definition

We made it to record daily feedback easily and quickly. ClientId and ImageUrl (Url file path) are required. It automatically adds the date by taking the date itself. Since it is not approved, isOkay default 0 goes.

ForExec: `EXEC sp_AddDailyFeedBack 49,'2021/12/day-1-1.jpg'`

Code:

```
ALTER PROCEDURE [dbo].[sp_AddDailyFeedBack]
  (@CliendID int,@imageUrl varchar(max))
  AS
  BEGIN
    Declare @Date smalldatetime = CONVERT(datetime, CONVERT(varchar, GETDATE(), 110));
    INSERT INTO DailyFeedback VALUES (@CliendID,@date,@imageUrl,0)
    END
```

9. sp_AddMonthlyFeedBack

Definition

We made it to record the monthly feedback easily and quickly. Requires @ClientId, @frontPhoto, @backSidePhoto,@weight and @fatRate. It automatically adds the date by taking the current date.

For Exec: `EXEC sp_AddMonthlyFeedBack 48, '2021/12/front.jpg', '2021/12/backside.jpg',85,18`

Code:

```
ALTER PROCEDURE [dbo].[sp_AddMonthlyFeedBack]
(@ClientId int,@frontPhoto varchar(Max),@backSidePhoto varchar(Max),@weight real,@FatRate real)
AS
    Declare @Date smalldatetime = CONVERT(datetime, CONVERT(varchar, GETDATE(), 110));
INSERT INTO MonthlyFeedback VALUES (@Date,@ClientId,@frontPhoto,@backSidePhoto,@weight,@FatRate)
```

10. sp_getWeightLoss

Definition

We receive feedback from our clients in the form of monthly weight and fat percentage. This procedure calculates the amount of weight and fat lost from the beginning to the present by finding the first added record and the last added record for that client from the MonthlyFeedback table with the given ClientID, and subtracting the values from the oldest to the newest.

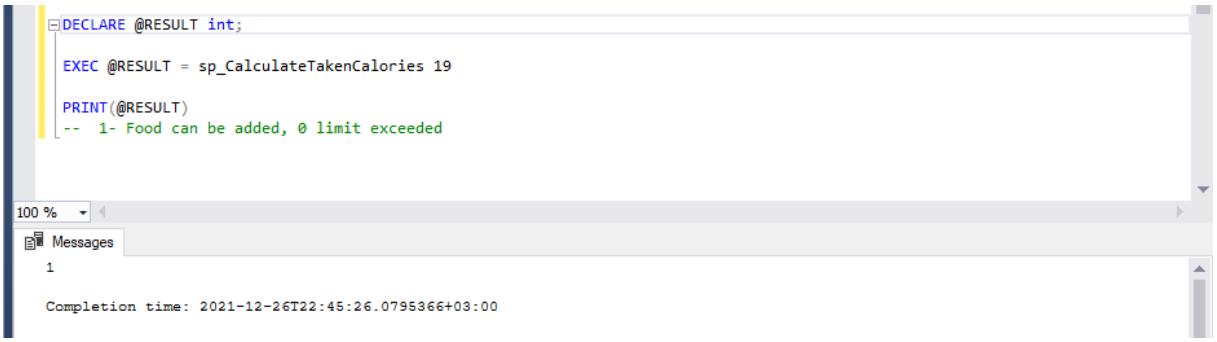
For Exec: `EXEC sp_getWeightLoss 17`

Code

```
ALTER PROCEDURE [dbo].[sp_getWeightLoss]
(@ClientID int)
AS
SELECT (firstTime.Weight- lastTime.Weight) as weightLoss, (firstTime.fatRate -lastTime.fatRate) fatLoss
FROM (
  SELECT TOP 1 * FROM MonthlyFeedback MF WHERE MF.ClientID = @ClientID ORDER BY FeedbackDate DESC
  ) lastTime  INNER JOIN
(
  SELECT TOP 1 * FROM MonthlyFeedback MF WHERE MF.ClientID = @ClientID ORDER BY FeedbackDate ASC
  ) firstTime on lastTime.ClientID = firstTime.ClientID
```

Stored Procedure Before / After

1. sp_CalculateTakenCalories



```
DECLARE @RESULT int;

EXEC @RESULT = sp_CalculateTakenCalories 19

PRINT(@RESULT)
--  1- Food can be added, 0 limit exceeded
```

100 %

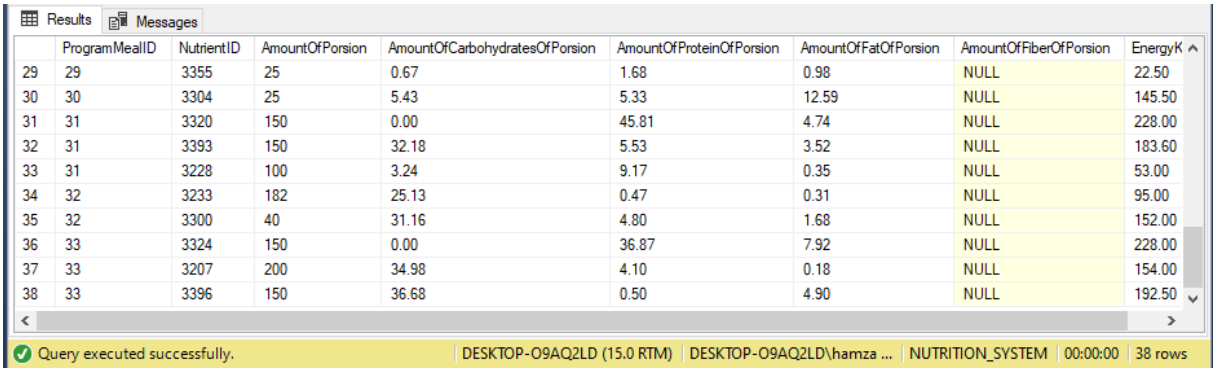
Messages

```
1

Completion time: 2021-12-26T22:45:26.0795366+03:00
```

2. sp_AddNutrientToProgramMeal

Before



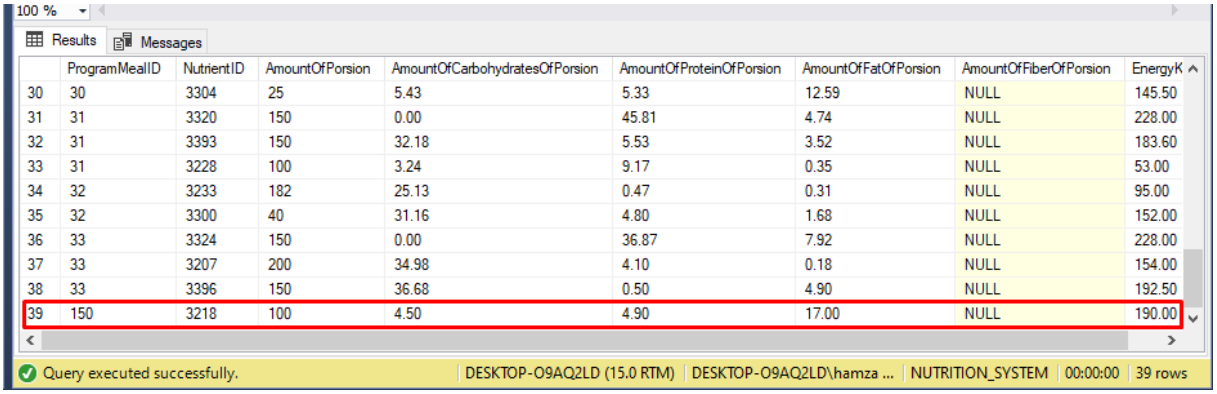
Results | Messages

	ProgramMealID	NutrientID	AmountOfPorsion	AmountOfCarbohydratesOfPorsion	AmountOfProteinOfPorsion	AmountOfFatOfPorsion	AmountOfFiberOfPorsion	EnergyK
29	29	3355	25	0.67	1.68	0.98	NULL	22.50
30	30	3304	25	5.43	5.33	12.59	NULL	145.50
31	31	3320	150	0.00	45.81	4.74	NULL	228.00
32	31	3393	150	32.18	5.53	3.52	NULL	183.60
33	31	3228	100	3.24	9.17	0.35	NULL	53.00
34	32	3233	182	25.13	0.47	0.31	NULL	95.00
35	32	3300	40	31.16	4.80	1.68	NULL	152.00
36	33	3324	150	0.00	36.87	7.92	NULL	228.00
37	33	3207	200	34.98	4.10	0.18	NULL	154.00
38	33	3396	150	36.68	0.50	4.90	NULL	192.50

Query executed successfully. | DESKTOP-O9AQ2LD (15.0 RTM) | DESKTOP-O9AQ2LD\hamza ... | NUTRITION_SYSTEM | 00:00:00 | 38 rows

Exec: `EXEC sp_AddNutrientToProgramMeal 150,3218,100`

After



100 %

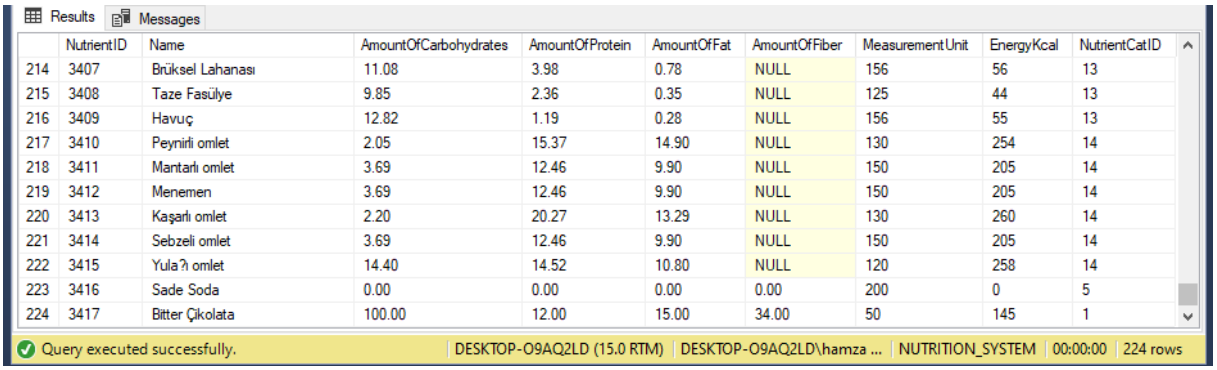
Results | Messages

	ProgramMealID	NutrientID	AmountOfPorsion	AmountOfCarbohydratesOfPorsion	AmountOfProteinOfPorsion	AmountOfFatOfPorsion	AmountOfFiberOfPorsion	EnergyK
30	30	3304	25	5.43	5.33	12.59	NULL	145.50
31	31	3320	150	0.00	45.81	4.74	NULL	228.00
32	31	3393	150	32.18	5.53	3.52	NULL	183.60
33	31	3228	100	3.24	9.17	0.35	NULL	53.00
34	32	3233	182	25.13	0.47	0.31	NULL	95.00
35	32	3300	40	31.16	4.80	1.68	NULL	152.00
36	33	3324	150	0.00	36.87	7.92	NULL	228.00
37	33	3207	200	34.98	4.10	0.18	NULL	154.00
38	33	3396	150	36.68	0.50	4.90	NULL	192.50
39	150	3218	100	4.50	4.90	17.00	NULL	190.00

Query executed successfully. | DESKTOP-O9AQ2LD (15.0 RTM) | DESKTOP-O9AQ2LD\hamza ... | NUTRITION_SYSTEM | 00:00:00 | 39 rows

3. sp_AddNutrientWithVitamins

Before



Results Messages

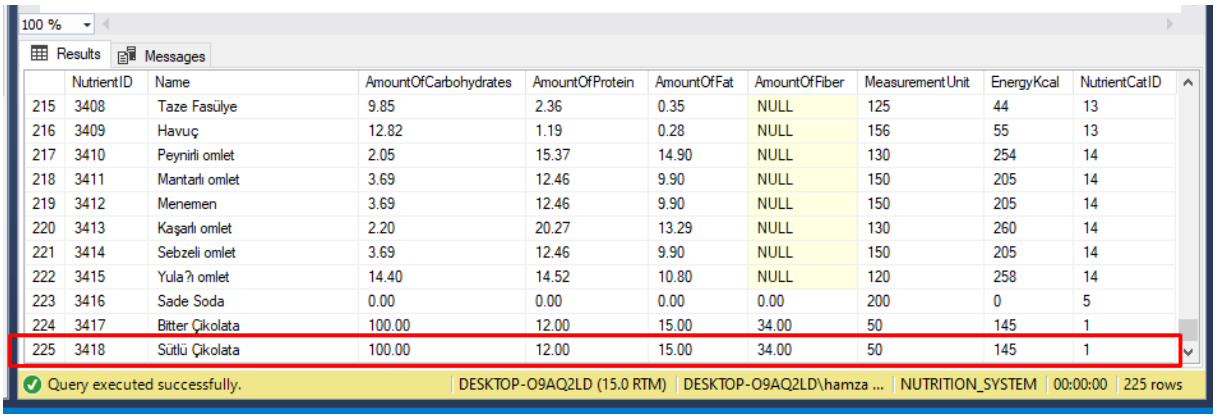
	NutrientID	Name	AmountOfCarbohydrates	AmountOfProtein	AmountOfFat	AmountOfFiber	MeasurementUnit	EnergyKcal	NutrientCatID
214	3407	Brüksel Lahanası	11.08	3.98	0.78	NULL	156	56	13
215	3408	Taze Fasülye	9.85	2.36	0.35	NULL	125	44	13
216	3409	Havuç	12.82	1.19	0.28	NULL	156	55	13
217	3410	Peynirli omlet	2.05	15.37	14.90	NULL	130	254	14
218	3411	Mantarlı omlet	3.69	12.46	9.90	NULL	150	205	14
219	3412	Menemen	3.69	12.46	9.90	NULL	150	205	14
220	3413	Kaşarlı omlet	2.20	20.27	13.29	NULL	130	260	14
221	3414	Sebzeli omlet	3.69	12.46	9.90	NULL	150	205	14
222	3415	Yula?ı omlet	14.40	14.52	10.80	NULL	120	258	14
223	3416	Sade Soda	0.00	0.00	0.00	0.00	200	0	5
224	3417	Bitter Çikolata	100.00	12.00	15.00	34.00	50	145	1

Query executed successfully. | DESKTOP-O9AQ2LD (15.0 RTM) | DESKTOP-O9AQ2LD\hamza ... | NUTRITION_SYSTEM | 00:00:00 | 224 rows

Exec

```
EXEC sp_AddNutrientWithVitamins 'Sütlü Çikolata', 100,12,15,34,50,145,1,
'A,B,C,12'
```

After



100 %

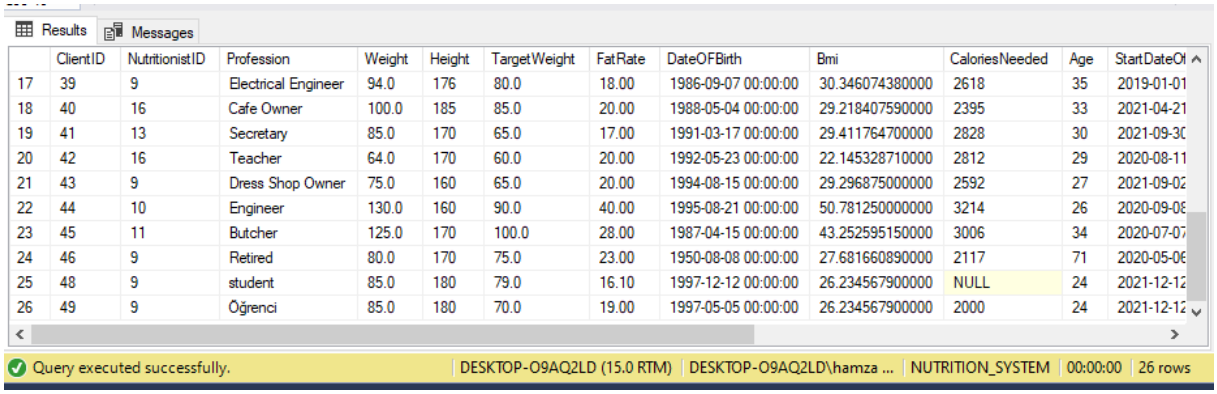
Results Messages

	NutrientID	Name	AmountOfCarbohydrates	AmountOfProtein	AmountOfFat	AmountOfFiber	MeasurementUnit	EnergyKcal	NutrientCatID
215	3408	Taze Fasülye	9.85	2.36	0.35	NULL	125	44	13
216	3409	Havuç	12.82	1.19	0.28	NULL	156	55	13
217	3410	Peynirli omlet	2.05	15.37	14.90	NULL	130	254	14
218	3411	Mantarlı omlet	3.69	12.46	9.90	NULL	150	205	14
219	3412	Menemen	3.69	12.46	9.90	NULL	150	205	14
220	3413	Kaşarlı omlet	2.20	20.27	13.29	NULL	130	260	14
221	3414	Sebzeli omlet	3.69	12.46	9.90	NULL	150	205	14
222	3415	Yula?ı omlet	14.40	14.52	10.80	NULL	120	258	14
223	3416	Sade Soda	0.00	0.00	0.00	0.00	200	0	5
224	3417	Bitter Çikolata	100.00	12.00	15.00	34.00	50	145	1
225	3418	Sütlü Çikolata	100.00	12.00	15.00	34.00	50	145	1

Query executed successfully. | DESKTOP-O9AQ2LD (15.0 RTM) | DESKTOP-O9AQ2LD\hamza ... | NUTRITION_SYSTEM | 00:00:00 | 225 rows

4. sp_AddNewClient

Before



	ClientID	NutritionistID	Profession	Weight	Height	TargetWeight	FatRate	DateOFBirth	Bmi	CaloriesNeeded	Age	StartDateOf
17	39	9	Electrical Engineer	94.0	176	80.0	18.00	1986-09-07 00:00:00	30.346074380000	2618	35	2019-01-01
18	40	16	Cafe Owner	100.0	185	85.0	20.00	1988-05-04 00:00:00	29.218407590000	2395	33	2021-04-21
19	41	13	Secretary	85.0	170	65.0	17.00	1991-03-17 00:00:00	29.411764700000	2828	30	2021-09-30
20	42	16	Teacher	64.0	170	60.0	20.00	1992-05-23 00:00:00	22.145328710000	2812	29	2020-08-11
21	43	9	Dress Shop Owner	75.0	160	65.0	20.00	1994-08-15 00:00:00	29.296875000000	2592	27	2021-09-02
22	44	10	Engineer	130.0	160	90.0	40.00	1995-08-21 00:00:00	50.781250000000	3214	26	2020-09-08
23	45	11	Butcher	125.0	170	100.0	28.00	1987-04-15 00:00:00	43.252595150000	3006	34	2020-07-07
24	46	9	Retired	80.0	170	75.0	23.00	1950-08-08 00:00:00	27.681660890000	2117	71	2020-05-06
25	48	9	student	85.0	180	79.0	16.10	1997-12-12 00:00:00	26.234567900000	NULL	24	2021-12-12
26	49	9	Öğrenci	85.0	180	70.0	19.00	1997-05-05 00:00:00	26.234567900000	2000	24	2021-12-12

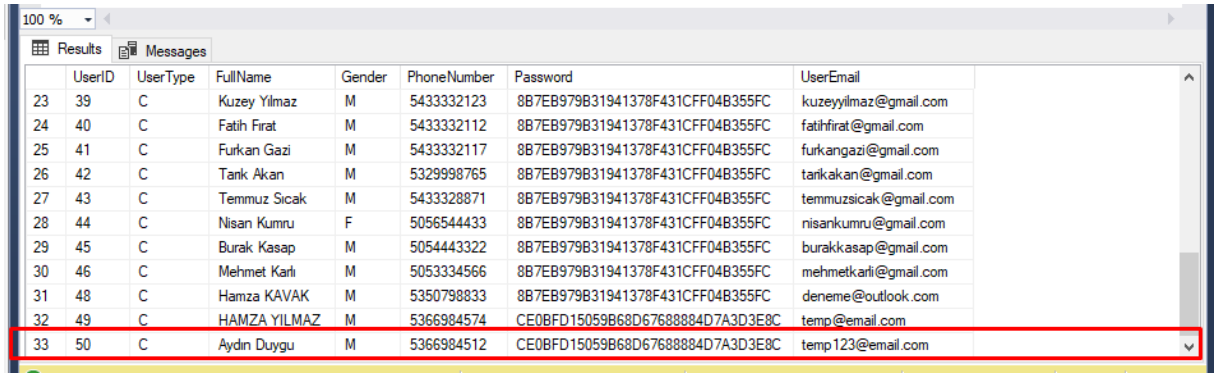
Query executed successfully. | DESKTOP-O9AQ2LD (15.0 RTM) | DESKTOP-O9AQ2LD\hamza ... | NUTRITION_SYSTEM | 00:00:00 | 26 rows

Exec

```
EXEC sp_AddNewClient 9,'Aydın Duygu', 'M','5366984512', '123456',
'temp123@email.com' , 'Öğrenci',85,180,70,19, '05/05/1997', '12/12/2021',
'01/03/2022', 'no', 1,2
```

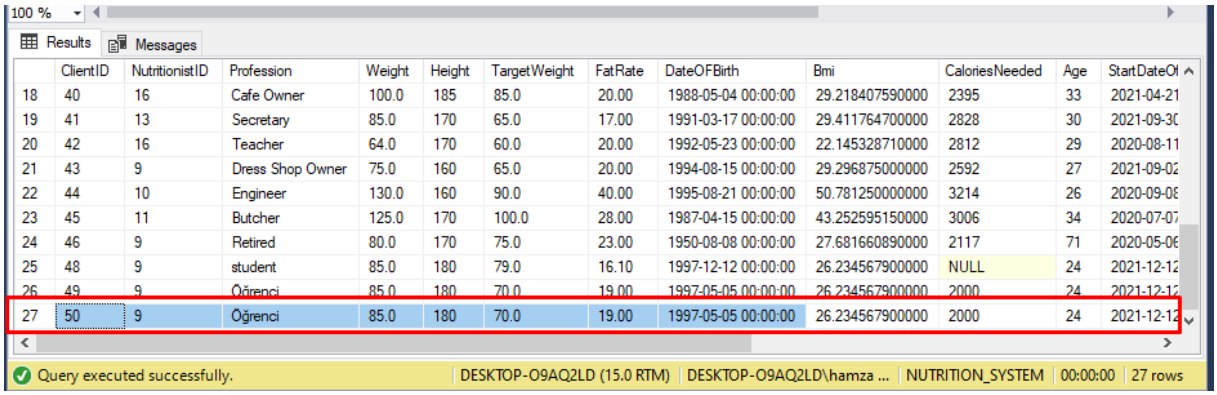
After

User Table



	UserID	UserType	FullName	Gender	PhoneNumber	Password	UserEmail
23	39	C	Kuzey Yilmaz	M	5433332123	8B7EB979B31941378F431CFF04B355FC	kuzeyyilmaz@gmail.com
24	40	C	Fatih Firat	M	5433332112	8B7EB979B31941378F431CFF04B355FC	fatihfirat@gmail.com
25	41	C	Furkan Gazi	M	5433332117	8B7EB979B31941378F431CFF04B355FC	furkangazi@gmail.com
26	42	C	Tank Akan	M	5329998765	8B7EB979B31941378F431CFF04B355FC	tankakan@gmail.com
27	43	C	Temmuz Sicak	M	5433328871	8B7EB979B31941378F431CFF04B355FC	temmuzsicak@gmail.com
28	44	C	Nisan Kumru	F	5056544433	8B7EB979B31941378F431CFF04B355FC	nisankumru@gmail.com
29	45	C	Burak Kasap	M	5054443322	8B7EB979B31941378F431CFF04B355FC	burakkasap@gmail.com
30	46	C	Mehmet Karlı	M	5053334566	8B7EB979B31941378F431CFF04B355FC	mehmetkarli@gmail.com
31	48	C	Hamza KAVAK	M	5350798833	8B7EB979B31941378F431CFF04B355FC	deneme@outlook.com
32	49	C	HAMZA YILMAZ	M	5366984574	CE0BFD15059B68D67688884D7A3D3E8C	temp@email.com
33	50	C	Aydın Duygu	M	5366984512	CE0BFD15059B68D67688884D7A3D3E8C	temp123@email.com

Client Table



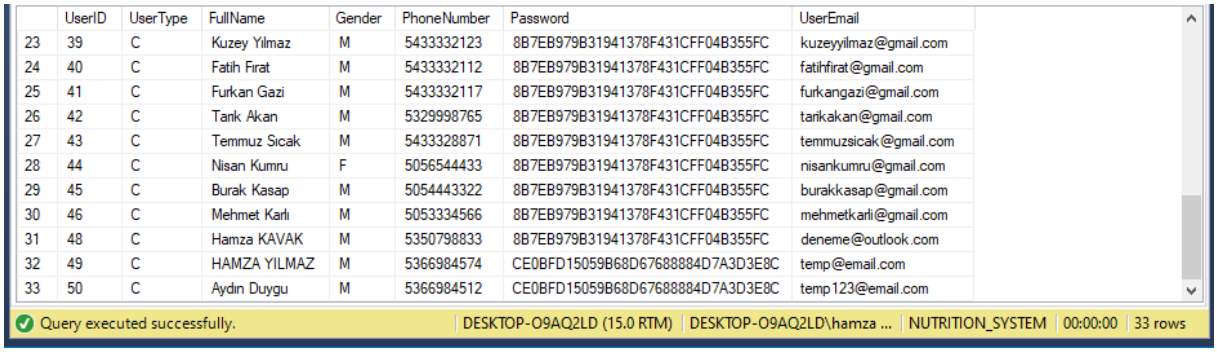
	ClientID	NutritionistID	Profession	Weight	Height	TargetWeight	FatRate	DateOFBirth	Bmi	CaloriesNeeded	Age	StartDateOf
18	40	16	Cafe Owner	100.0	185	85.0	20.00	1988-05-04 00:00:00	29.218407590000	2395	33	2021-04-21
19	41	13	Secretary	85.0	170	65.0	17.00	1991-03-17 00:00:00	29.411764700000	2828	30	2021-09-30
20	42	16	Teacher	64.0	170	60.0	20.00	1992-05-23 00:00:00	22.145328710000	2812	29	2020-08-11
21	43	9	Dress Shop Owner	75.0	160	65.0	20.00	1994-08-15 00:00:00	29.296875000000	2592	27	2021-09-02
22	44	10	Engineer	130.0	160	90.0	40.00	1995-08-21 00:00:00	50.781250000000	3214	26	2020-09-08
23	45	11	Butcher	125.0	170	100.0	28.00	1987-04-15 00:00:00	43.252595150000	3006	34	2020-07-07
24	46	9	Retired	80.0	170	75.0	23.00	1950-08-08 00:00:00	27.681660890000	2117	71	2020-05-06
25	48	9	student	85.0	180	79.0	16.10	1997-12-12 00:00:00	26.234567900000	NULL	24	2021-12-12
26	49	9	Öğrenci	85.0	180	70.0	19.00	1997-05-05 00:00:00	26.234567900000	2000	24	2021-12-12
27	50	9	Öğrenci	85.0	180	70.0	19.00	1997-05-05 00:00:00	26.234567900000	2000	24	2021-12-12

Query executed successfully. | DESKTOP-O9AQ2LD (15.0 RTM) | DESKTOP-O9AQ2LD\hamza ... | NUTRITION_SYSTEM | 00:00:00 | 27 rows

5. sp_AddNewNutritionist

Before

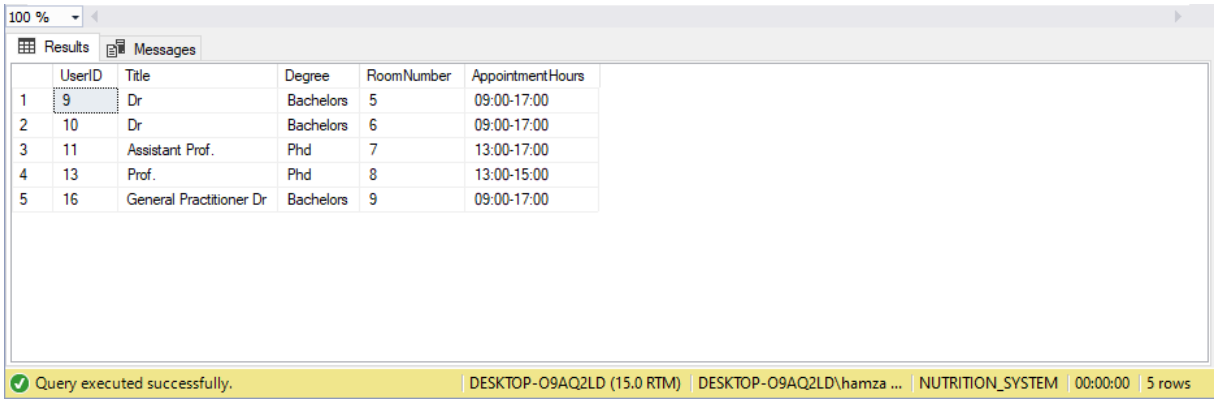
User Table



	UserID	UserType	FullName	Gender	PhoneNumber	Password	UserEmail
23	39	C	Kuzey Yilmaz	M	5433332123	8B7EB979B31941378F431CFF04B355FC	kuzeyyilmaz@gmail.com
24	40	C	Fatih Fırat	M	5433332112	8B7EB979B31941378F431CFF04B355FC	fatihfirat@gmail.com
25	41	C	Furkan Gazi	M	5433332117	8B7EB979B31941378F431CFF04B355FC	furkangazi@gmail.com
26	42	C	Tank Akan	M	5329998765	8B7EB979B31941378F431CFF04B355FC	tankakan@gmail.com
27	43	C	Temmuz Sıcak	M	5433328871	8B7EB979B31941378F431CFF04B355FC	temmuzsicak@gmail.com
28	44	C	Nisan Kumru	F	5056544433	8B7EB979B31941378F431CFF04B355FC	nisankumru@gmail.com
29	45	C	Burak Kasap	M	5054443322	8B7EB979B31941378F431CFF04B355FC	burakkasap@gmail.com
30	46	C	Mehmet Karlı	M	5053334566	8B7EB979B31941378F431CFF04B355FC	mehmetkarli@gmail.com
31	48	C	Hamza KAVAK	M	5350798833	8B7EB979B31941378F431CFF04B355FC	deneme@outlook.com
32	49	C	HAMZA YILMAZ	M	5366984574	CE0BFD15059B68D67688884D7A3D3E8C	temp@email.com
33	50	C	Aydın Duygu	M	5366984512	CE0BFD15059B68D67688884D7A3D3E8C	temp123@email.com

Query executed successfully. | DESKTOP-O9AQ2LD (15.0 RTM) | DESKTOP-O9AQ2LD\hamza ... | NUTRITION_SYSTEM | 00:00:00 | 33 rows

Nutritionist Table



100 % | Results | Messages

	UserID	Title	Degree	RoomNumber	AppointmentHours
1	9	Dr	Bachelors	5	09:00-17:00
2	10	Dr	Bachelors	6	09:00-17:00
3	11	Assistant Prof.	Phd	7	13:00-17:00
4	13	Prof.	Phd	8	13:00-15:00
5	16	General Practitioner Dr	Bachelors	9	09:00-17:00

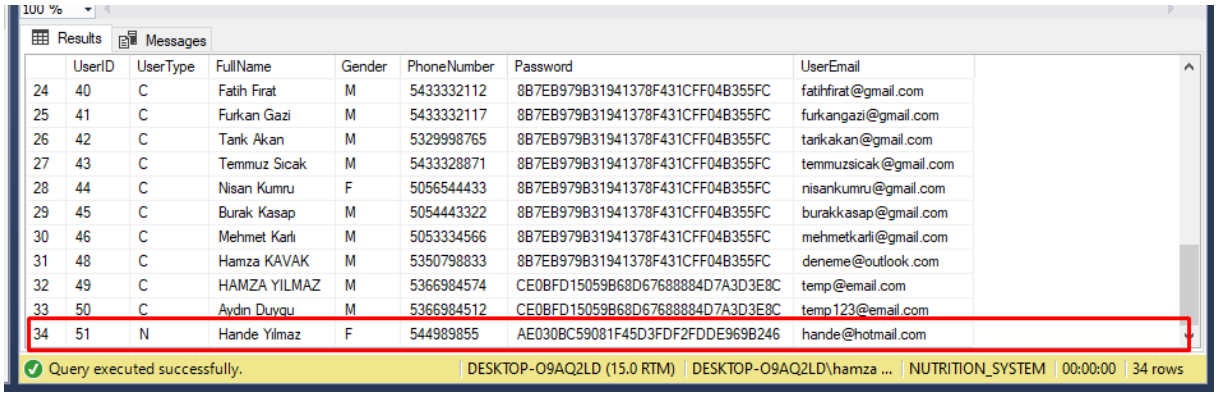
Query executed successfully. | DESKTOP-O9AQ2LD (15.0 RTM) | DESKTOP-O9AQ2LD\hamza ... | NUTRITION_SYSTEM | 00:00:00 | 5 rows

Exec

```
EXEC sp_AddNewNutritionist 'Hande Yılmaz','F','544989855','5987458',
'hande@hotmail.com','Uzman','Lisans',101,'09:00-17:00'
```

After

User Table

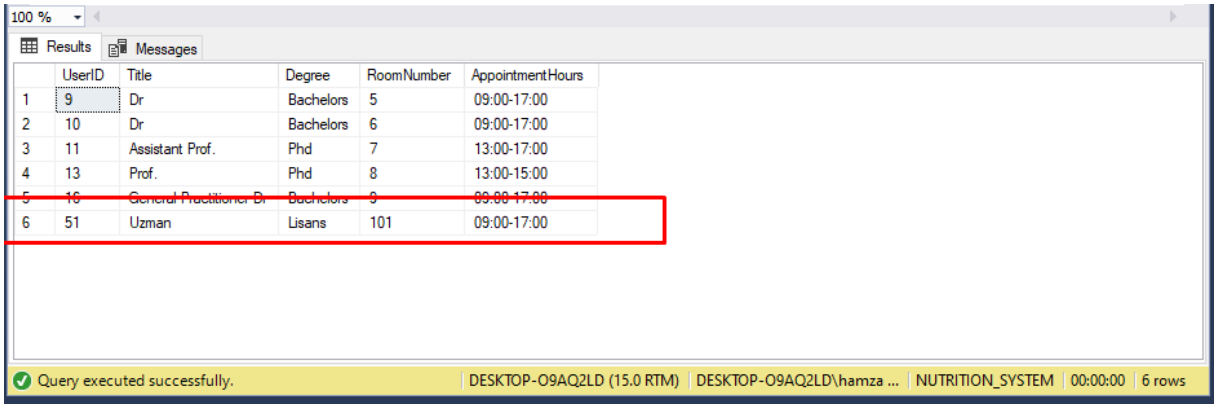


100 % | Results | Messages

	UserID	UserType	FullName	Gender	PhoneNumber	Password	UserEmail
24	40	C	Fatih Fırat	M	5433332112	8B7EB979B31941378F431CFF04B355FC	fatihfirat@gmail.com
25	41	C	Furkan Gazi	M	5433332117	8B7EB979B31941378F431CFF04B355FC	furkangazi@gmail.com
26	42	C	Tank Akan	M	5329998765	8B7EB979B31941378F431CFF04B355FC	tankakan@gmail.com
27	43	C	Temmuz Sıcak	M	5433328871	8B7EB979B31941378F431CFF04B355FC	temmuzsicak@gmail.com
28	44	C	Nisan Kumru	F	5056544433	8B7EB979B31941378F431CFF04B355FC	nisankumru@gmail.com
29	45	C	Burak Kasap	M	5054443322	8B7EB979B31941378F431CFF04B355FC	burakkasap@gmail.com
30	46	C	Mehmet Karlı	M	5053334566	8B7EB979B31941378F431CFF04B355FC	mehmetkarli@gmail.com
31	48	C	Hamza KAVAK	M	5350798833	8B7EB979B31941378F431CFF04B355FC	deneme@outlook.com
32	49	C	HAMZA YILMAZ	M	5366984574	CE0BFD15059B68D67688884D7A3D3E8C	temp@email.com
33	50	C	Aydın Duygu	M	5366984512	CE0BFD15059B68D67688884D7A3D3E8C	temp123@email.com
34	51	N	Hande Yılmaz	F	544989855	AE030BC59081F45D3FDF2FDDE969B246	hande@hotmail.com

Query executed successfully. | DESKTOP-O9AQ2LD (15.0 RTM) | DESKTOP-O9AQ2LD\hamza ... | NUTRITION_SYSTEM | 00:00:00 | 34 rows

Nutritionist Table



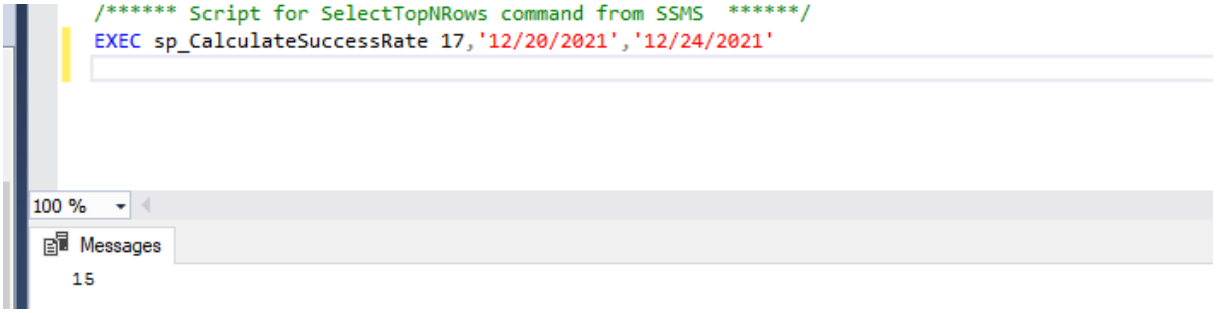
	UserID	Title	Degree	RoomNumber	AppointmentHours
1	9	Dr	Bachelors	5	09:00-17:00
2	10	Dr	Bachelors	6	09:00-17:00
3	11	Assistant Prof.	Phd	7	13:00-17:00
4	13	Prof.	Phd	8	13:00-15:00
5	16	General Practitioner Dr	Bachelors	9	09:00-17:00
6	51	Uzman	Lisans	101	09:00-17:00

Query executed successfully. DESKTOP-O9AQ2LD (15.0 RTM) DESKTOP-O9AQ2LD\hamza ... NUTRITION_SYSTEM 00:00:00 6 rows

6. sp_CalculateSuccessRate

Exec `EXEC sp_CalculateSuccessRate 17,'12/20/2021','12/24/2021'`

After %15



```
/****** Script for SelectTopNRows command from SSMS  ******/
EXEC sp_CalculateSuccessRate 17,'12/20/2021','12/24/2021'
```

100 %

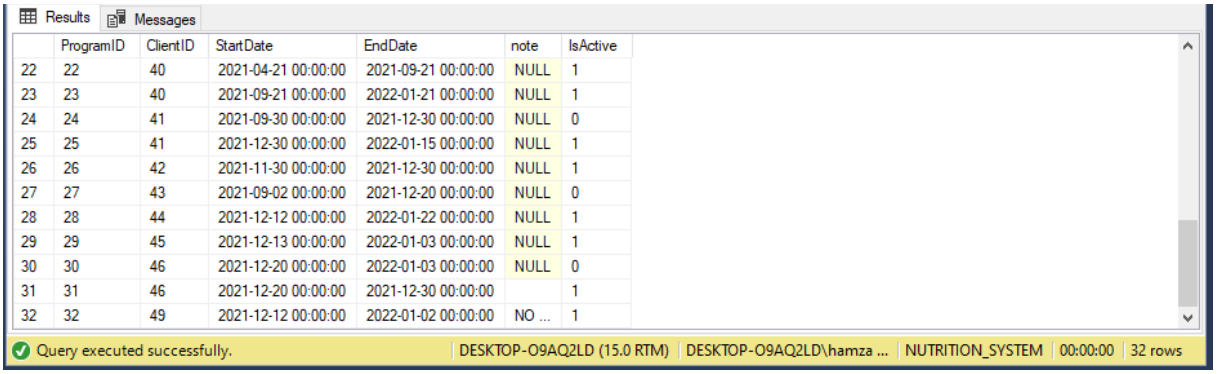
Messages

15

7. sp_CreateDietProgram

Before

DietProgram Table

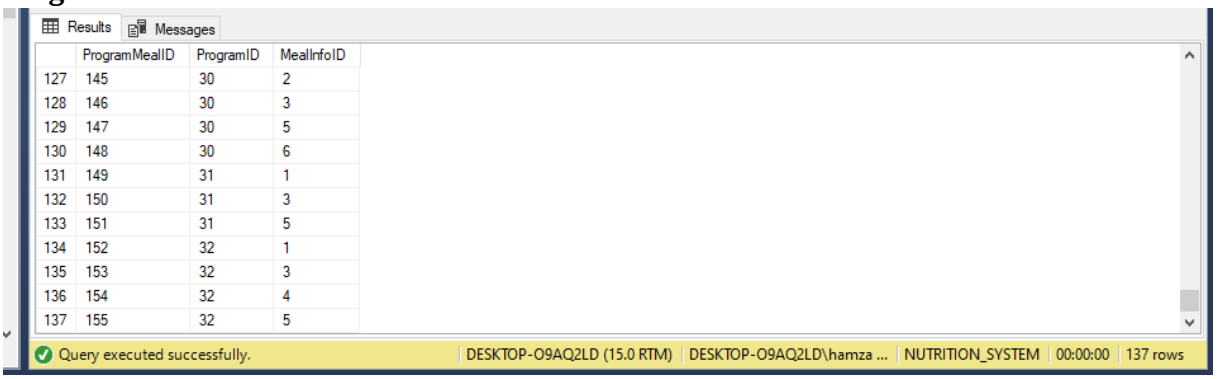


Results | Messages

	ProgramID	ClientID	StartDate	EndDate	note	IsActive
22	22	40	2021-04-21 00:00:00	2021-09-21 00:00:00	NULL	1
23	23	40	2021-09-21 00:00:00	2022-01-21 00:00:00	NULL	1
24	24	41	2021-09-30 00:00:00	2021-12-30 00:00:00	NULL	0
25	25	41	2021-12-30 00:00:00	2022-01-15 00:00:00	NULL	1
26	26	42	2021-11-30 00:00:00	2021-12-30 00:00:00	NULL	1
27	27	43	2021-09-02 00:00:00	2021-12-20 00:00:00	NULL	0
28	28	44	2021-12-12 00:00:00	2022-01-22 00:00:00	NULL	1
29	29	45	2021-12-13 00:00:00	2022-01-03 00:00:00	NULL	1
30	30	46	2021-12-20 00:00:00	2022-01-03 00:00:00	NULL	0
31	31	46	2021-12-20 00:00:00	2021-12-30 00:00:00		1
32	32	49	2021-12-12 00:00:00	2022-01-02 00:00:00	NO ...	1

Query executed successfully. | DESKTOP-O9AQ2LD (15.0 RTM) | DESKTOP-O9AQ2LD\hamza ... | NUTRITION_SYSTEM | 00:00:00 | 32 rows

ProgramMeal Table



Results | Messages

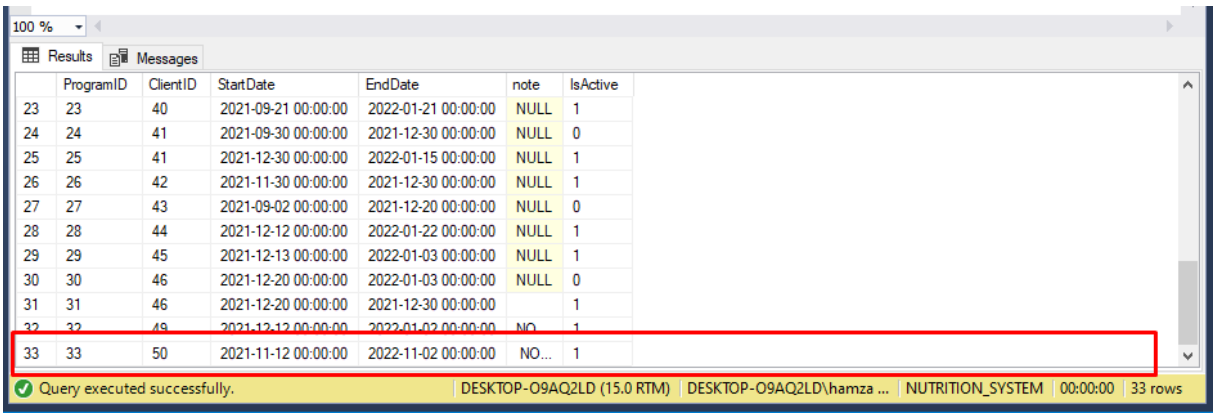
	ProgramMealID	ProgramID	MealInfoID
127	145	30	2
128	146	30	3
129	147	30	5
130	148	30	6
131	149	31	1
132	150	31	3
133	151	31	5
134	152	32	1
135	153	32	3
136	154	32	4
137	155	32	5

Query executed successfully. | DESKTOP-O9AQ2LD (15.0 RTM) | DESKTOP-O9AQ2LD\hamza ... | NUTRITION_SYSTEM | 00:00:00 | 137 rows

Exec `EXEC sp_CreateDietProgram 50,'11-12-2021','11-02-2022','NO NOTE',1,1,1,1,1,1,0`

After

DietProgram Table



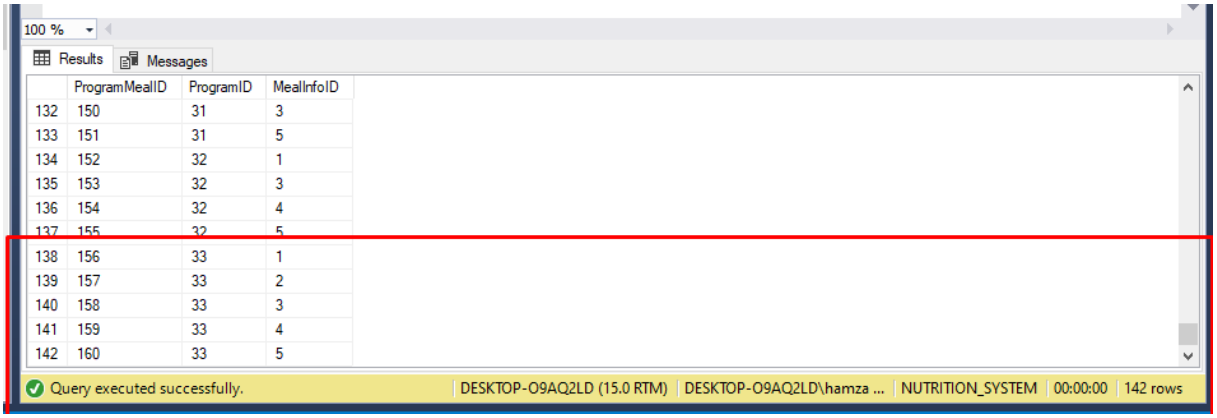
100 %

Results | Messages

	ProgramID	ClientID	StartDate	EndDate	note	IsActive
23	23	40	2021-09-21 00:00:00	2022-01-21 00:00:00	NULL	1
24	24	41	2021-09-30 00:00:00	2021-12-30 00:00:00	NULL	0
25	25	41	2021-12-30 00:00:00	2022-01-15 00:00:00	NULL	1
26	26	42	2021-11-30 00:00:00	2021-12-30 00:00:00	NULL	1
27	27	43	2021-09-02 00:00:00	2021-12-20 00:00:00	NULL	0
28	28	44	2021-12-12 00:00:00	2022-01-22 00:00:00	NULL	1
29	29	45	2021-12-13 00:00:00	2022-01-03 00:00:00	NULL	1
30	30	46	2021-12-20 00:00:00	2022-01-03 00:00:00	NULL	0
31	31	46	2021-12-20 00:00:00	2021-12-30 00:00:00		1
32	32	49	2021-12-12 00:00:00	2022-01-02 00:00:00	NO...	1
33	33	50	2021-11-12 00:00:00	2022-11-02 00:00:00	NO...	1

Query executed successfully. | DESKTOP-O9AQ2LD (15.0 RTM) | DESKTOP-O9AQ2LD\hamza ... | NUTRITION_SYSTEM | 00:00:00 | 33 rows

ProgramMeal Table

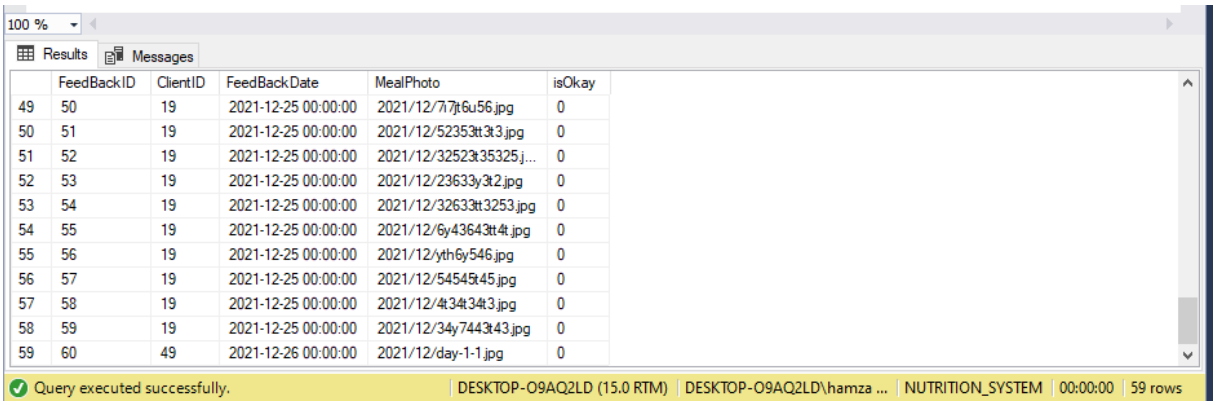


	ProgramMealID	ProgramID	MealInfoID
132	150	31	3
133	151	31	5
134	152	32	1
135	153	32	3
136	154	32	4
137	155	32	5
138	156	33	1
139	157	33	2
140	158	33	3
141	159	33	4
142	160	33	5

Query executed successfully. | DESKTOP-O9AQ2LD (15.0 RTM) | DESKTOP-O9AQ2LD\hamza ... | NUTRITION_SYSTEM | 00:00:00 | 142 rows

8. sp_AddDailyFeedBack

Before



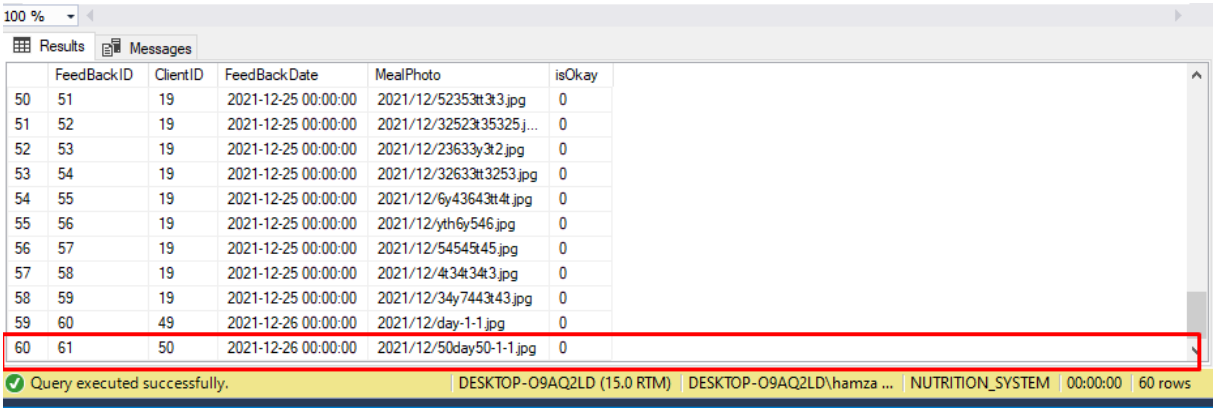
	FeedBackID	ClientID	FeedBackDate	MealPhoto	isOkay
49	50	19	2021-12-25 00:00:00	2021/12/7i7jt6u56.jpg	0
50	51	19	2021-12-25 00:00:00	2021/12/52353tt3t3.jpg	0
51	52	19	2021-12-25 00:00:00	2021/12/32523t35325j...	0
52	53	19	2021-12-25 00:00:00	2021/12/23633y3t2.jpg	0
53	54	19	2021-12-25 00:00:00	2021/12/32633tt3253.jpg	0
54	55	19	2021-12-25 00:00:00	2021/12/6y43643tt4t.jpg	0
55	56	19	2021-12-25 00:00:00	2021/12/yth6y546.jpg	0
56	57	19	2021-12-25 00:00:00	2021/12/54545t45.jpg	0
57	58	19	2021-12-25 00:00:00	2021/12/4t34t34t3.jpg	0
58	59	19	2021-12-25 00:00:00	2021/12/34y7443t43.jpg	0
59	60	49	2021-12-26 00:00:00	2021/12/day-1-1.jpg	0

Query executed successfully. | DESKTOP-O9AQ2LD (15.0 RTM) | DESKTOP-O9AQ2LD\hamza ... | NUTRITION_SYSTEM | 00:00:00 | 59 rows

Exec

```
EXEC sp_AddDailyFeedBack 50,'2021/12/50day50-1-1.jpg'
```

After

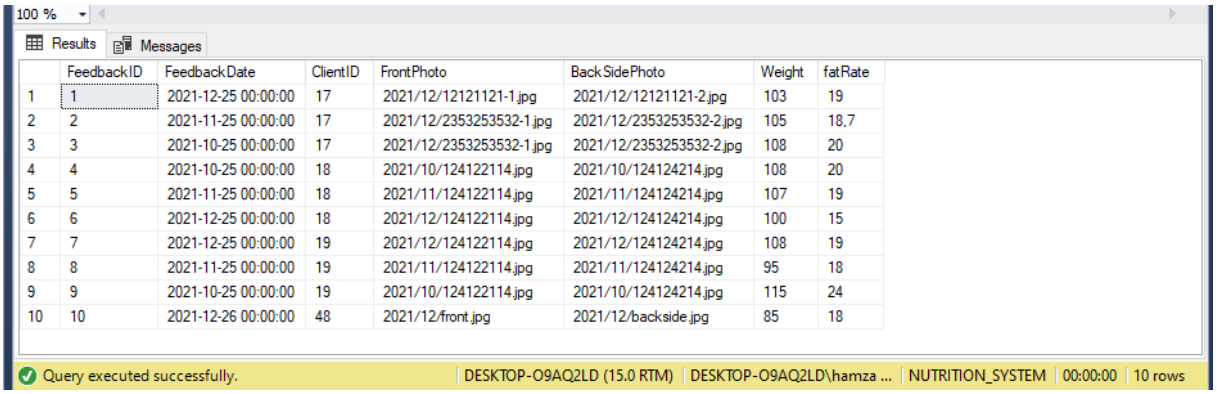


	FeedBackID	ClientID	FeedBackDate	MealPhoto	isOkay
50	51	19	2021-12-25 00:00:00	2021/12/52353tt3t3.jpg	0
51	52	19	2021-12-25 00:00:00	2021/12/32523t35325j...	0
52	53	19	2021-12-25 00:00:00	2021/12/23633y3t2.jpg	0
53	54	19	2021-12-25 00:00:00	2021/12/32633tt3253.jpg	0
54	55	19	2021-12-25 00:00:00	2021/12/6y43643tt4t.jpg	0
55	56	19	2021-12-25 00:00:00	2021/12/yth6y546.jpg	0
56	57	19	2021-12-25 00:00:00	2021/12/54545t45.jpg	0
57	58	19	2021-12-25 00:00:00	2021/12/4t34t34t3.jpg	0
58	59	19	2021-12-25 00:00:00	2021/12/34y7443t43.jpg	0
59	60	49	2021-12-26 00:00:00	2021/12/day-1-1.jpg	0
60	61	50	2021-12-26 00:00:00	2021/12/50day50-1-1.jpg	0

Query executed successfully. | DESKTOP-O9AQ2LD (15.0 RTM) | DESKTOP-O9AQ2LD\hamza ... | NUTRITION_SYSTEM | 00:00:00 | 60 rows

9. sp_AddMonthlyFeedBack

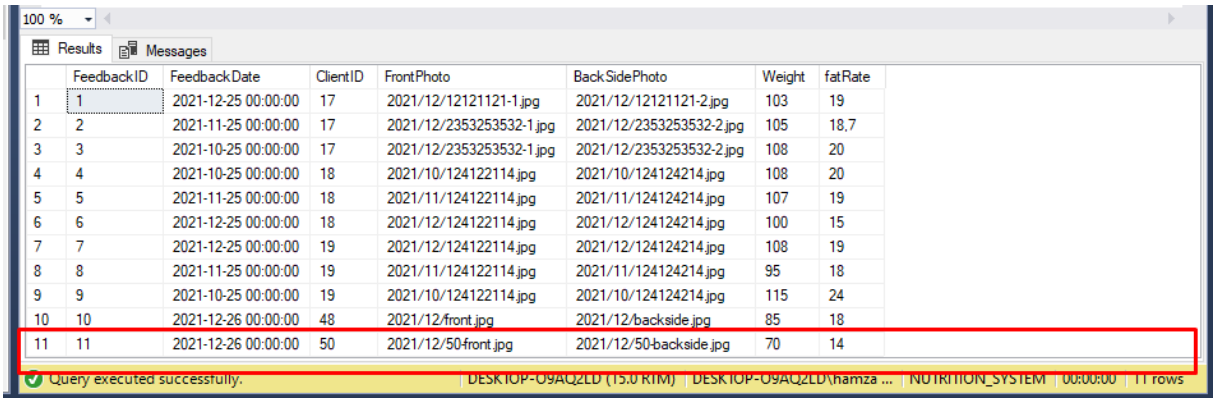
Before



	FeedbackID	FeedbackDate	ClientID	FrontPhoto	BackSidePhoto	Weight	fatRate
1	1	2021-12-25 00:00:00	17	2021/12/12121121-1.jpg	2021/12/12121121-2.jpg	103	19
2	2	2021-11-25 00:00:00	17	2021/12/2353253532-1.jpg	2021/12/2353253532-2.jpg	105	18,7
3	3	2021-10-25 00:00:00	17	2021/12/2353253532-1.jpg	2021/12/2353253532-2.jpg	108	20
4	4	2021-10-25 00:00:00	18	2021/10/124122114.jpg	2021/10/124124214.jpg	108	20
5	5	2021-11-25 00:00:00	18	2021/11/124122114.jpg	2021/11/124124214.jpg	107	19
6	6	2021-12-25 00:00:00	18	2021/12/124122114.jpg	2021/12/124124214.jpg	100	15
7	7	2021-12-25 00:00:00	19	2021/12/124122114.jpg	2021/12/124124214.jpg	108	19
8	8	2021-11-25 00:00:00	19	2021/11/124122114.jpg	2021/11/124124214.jpg	95	18
9	9	2021-10-25 00:00:00	19	2021/10/124122114.jpg	2021/10/124124214.jpg	115	24
10	10	2021-12-26 00:00:00	48	2021/12/front.jpg	2021/12/backside.jpg	85	18

Exec `EXEC sp_AddMonthlyFeedBack 50, '2021/12/50-front.jpg', '2021/12/50-backside.jpg',70,14`

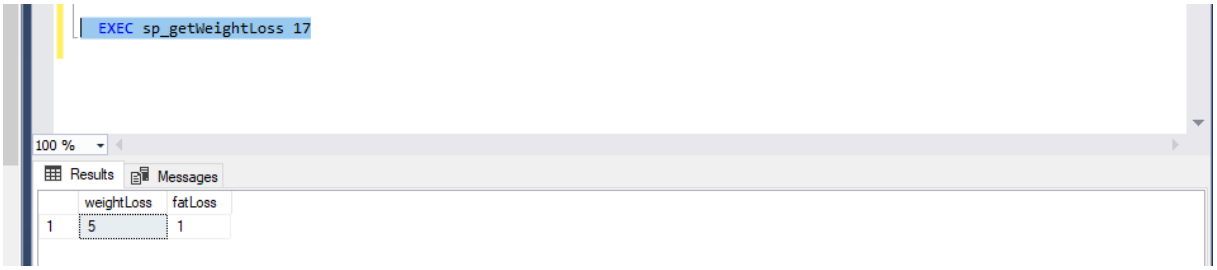
After



	FeedbackID	FeedbackDate	ClientID	FrontPhoto	BackSidePhoto	Weight	fatRate
1	1	2021-12-25 00:00:00	17	2021/12/12121121-1.jpg	2021/12/12121121-2.jpg	103	19
2	2	2021-11-25 00:00:00	17	2021/12/2353253532-1.jpg	2021/12/2353253532-2.jpg	105	18,7
3	3	2021-10-25 00:00:00	17	2021/12/2353253532-1.jpg	2021/12/2353253532-2.jpg	108	20
4	4	2021-10-25 00:00:00	18	2021/10/124122114.jpg	2021/10/124124214.jpg	108	20
5	5	2021-11-25 00:00:00	18	2021/11/124122114.jpg	2021/11/124124214.jpg	107	19
6	6	2021-12-25 00:00:00	18	2021/12/124122114.jpg	2021/12/124124214.jpg	100	15
7	7	2021-12-25 00:00:00	19	2021/12/124122114.jpg	2021/12/124124214.jpg	108	19
8	8	2021-11-25 00:00:00	19	2021/11/124122114.jpg	2021/11/124124214.jpg	95	18
9	9	2021-10-25 00:00:00	19	2021/10/124122114.jpg	2021/10/124124214.jpg	115	24
10	10	2021-12-26 00:00:00	48	2021/12/front.jpg	2021/12/backside.jpg	85	18
11	11	2021-12-26 00:00:00	50	2021/12/50-front.jpg	2021/12/50-backside.jpg	70	14

10. sp_ getWeightLoss

Exec `EXEC sp_getWeightLoss 17`



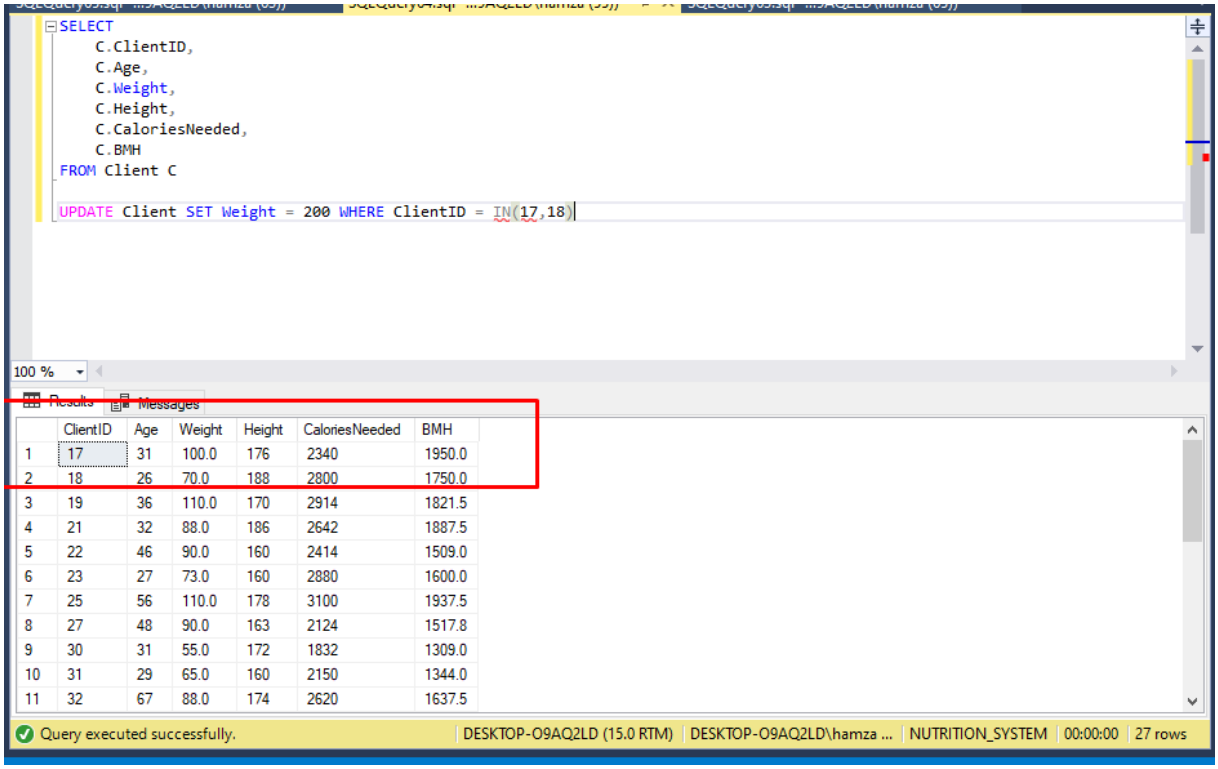
```
EXEC sp_getWeightLoss 17
```

	weightLoss	fatLoss
1	5	1

Trigger Before / After

1. tg_CalculateBMH

Before running update



```
SELECT
    C.ClientID,
    C.Age,
    C.Weight,
    C.Height,
    C.CaloriesNeeded,
    C.BMH
FROM Client C

UPDATE Client SET Weight = 200 WHERE ClientID = IN(17,18)
```

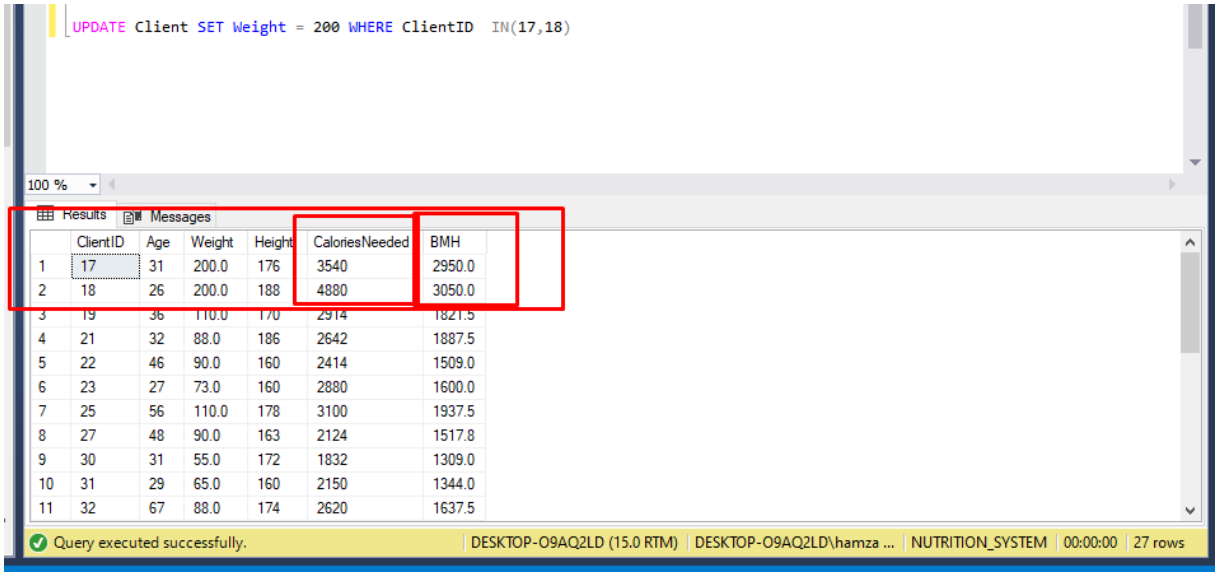
100 %

Results | Messages

	ClientID	Age	Weight	Height	CaloriesNeeded	BMH
1	17	31	100.0	176	2340	1950.0
2	18	26	70.0	188	2800	1750.0
3	19	36	110.0	170	2914	1821.5
4	21	32	88.0	186	2642	1887.5
5	22	46	90.0	160	2414	1509.0
6	23	27	73.0	160	2880	1600.0
7	25	56	110.0	178	3100	1937.5
8	27	48	90.0	163	2124	1517.8
9	30	31	55.0	172	1832	1309.0
10	31	29	65.0	160	2150	1344.0
11	32	67	88.0	174	2620	1637.5

Query executed successfully. | DESKTOP-O9AQ2LD (15.0 RTM) | DESKTOP-O9AQ2LD\hamza ... | NUTRITION_SYSTEM | 00:00:00 | 27 rows

After Updated



```
UPDATE Client SET Weight = 200 WHERE ClientID  IN(17,18)
```

100 %

Results | Messages

	ClientID	Age	Weight	Height	CaloriesNeeded	BMH
1	17	31	200.0	176	3540	2950.0
2	18	26	200.0	188	4880	3050.0
3	19	36	110.0	170	2914	1821.5
4	21	32	88.0	186	2642	1887.5
5	22	46	90.0	160	2414	1509.0
6	23	27	73.0	160	2880	1600.0
7	25	56	110.0	178	3100	1937.5
8	27	48	90.0	163	2124	1517.8
9	30	31	55.0	172	1832	1309.0
10	31	29	65.0	160	2150	1344.0
11	32	67	88.0	174	2620	1637.5

Query executed successfully. | DESKTOP-O9AQ2LD (15.0 RTM) | DESKTOP-O9AQ2LD\hamza ... | NUTRITION_SYSTEM | 00:00:00 | 27 rows

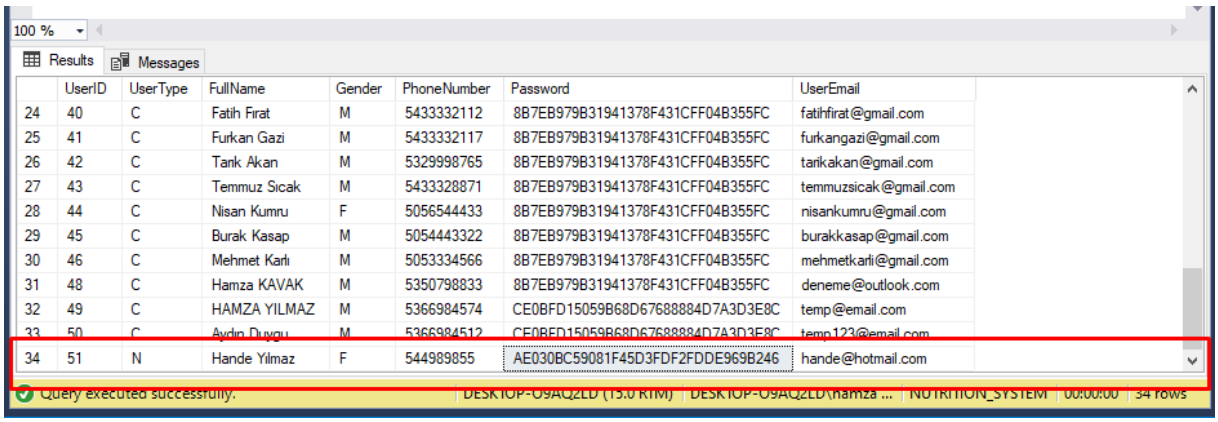
2. tg_ConvertToPassMD5

Before running update

While adding Nutritionist in the Stored Procedures section, we set the password for Hande_Yılmaz as '5987458'.

After Inserted

Added '5987458' encrypted.



	UserID	UserType	FullName	Gender	PhoneNumber	Password	UserEmail
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