Group 17
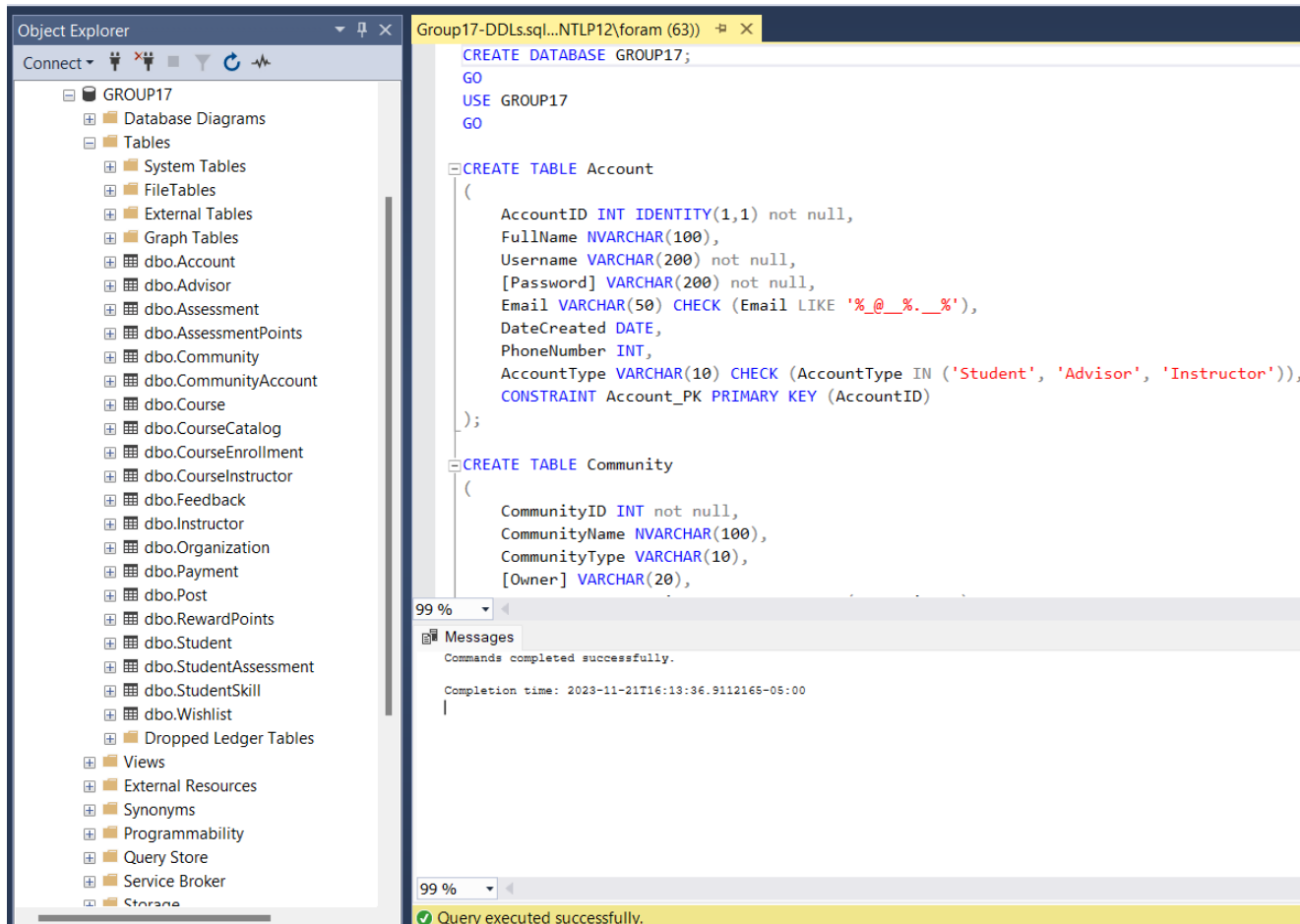
E-Learning Platform Management System

Creation of Tables:

1) Stored procedures containing input and output parameters
    a) Create a stored procedure EnrollbyRewards which takes @CourseID and @StudentID as input parameters and returns @message as an output parameter. The stored procedure must perform the following business rules:
        i) If @CourseID or @ StudentID is not found, it returns the message "Invalid CourseID" or "Invalid StudentID" respectively.
        ii) If TotalPoints in Course is greater than the current RedeemablePoints of Student, it does nothing and return the message "Student does not have enough Reward Points to enroll in the Course" along with StudentID and CourseID
        iii) If TotalPoints in Course is less than or equal to the current RedeemablePoints of Student:
            (1) It makes entry in Payment: random unique integer ID as PaymentID, 'Reward Points' as PaymentMethod, 0 as Amount, current date as Payment Date, StudentID & CourseID as input parameter
            (2) It makes entry in CourseEnrollment with random unique ID as EnrollmentID, current date as EnrollmentDate, 'Enrolled' as CertificationStatus, StudentID & CourseID as input parameter, Payment ID same as above entry

(3) Update the value of RedeemablePoints for the given student as current points minus used points for enrolling in the course Return the message "Student successfully enrolled in the course using Reward Points" along with StudentID and CourseID

```sql
ProcedureEnrollBy...NTLP12\foram (71))
CREATE PROCEDURE EnrollByRewards
    @CourseID INT,
    @StudentID INT,
    @Message NVARCHAR(100) OUTPUT
AS
BEGIN
    DECLARE @TotalPoints INT
    DECLARE @RedeemablePoints INT
    DECLARE @PaymentID INT
    DECLARE @EnrollmentID INT

    IF NOT EXISTS (SELECT 1 FROM Course WHERE CourseID = @CourseID)
    BEGIN
        SET @Message = 'Invalid CourseID'
        RETURN
    END

    IF NOT EXISTS (SELECT 1 FROM Student WHERE StudentID = @StudentID)
    BEGIN
```

99 %

Messages

Commands completed successfully.

Completion time: 2023-11-22T12:06:05.1823997-05:00

```sql
Group17-DDLs.sql...NTLP12\foram (51))    SQLQuery3.sql - lo...NTLP12\foram (75))*    Group17-INSERT
    DECLARE @Message1 NVARCHAR(100)
    EXEC EnrollByRewards @CourseID = 700, @StudentID = 1, @Message = @Message1 OUTPUT;
    PRINT @Message1;
```

99 %

Messages

Invalid CourseID

Completion time: 2023-11-26T20:00:59.5329727-05:00

```sql
DECLARE @Message1 NVARCHAR(100)
EXEC EnrollByRewards @CourseID = 602, @StudentID = 100, @Message = @Message1 OUTPUT;
PRINT @Message1;
```

9 %

Messages   Client Statistics

Invalid StudentID

Completion time: 2023-11-26T20:02:00.5588297-05:00

```sql
DECLARE @Message1 NVARCHAR(100)
EXEC EnrollByRewards @CourseID = 605, @StudentID = 7, @Message = @Message1 OUTPUT;
PRINT @Message1;
```

99 %

Messages   Client Statistics

(1 row affected)

(1 row affected)

(1 row affected)
Student (ID: 7) successfully enrolled in the course (ID: 605) using Reward Points

Completion time: 2023-11-26T20:13:51.9259325-05:00

b) Create a stored procedure, PostInformation, that takes @PostID as an input parameter and outputs a result set that includes all the replies to that post.

c) Create a stored procedure, GetAverageRatingForInstructor, that takes @InstructorID as an input parameter and outputs an average rating, representing the calculated average rating for the specified instructor based on feedback provided by students.

2) Views

a. Student Details


```
-- To retrieve information from the StudentDetails view
SELECT * FROM StudentDetails;
```

	AccountID	FullName	StudentID	Major	Degree	CourseID	CourseTitle	CertificationStatus	TotalPoints	PointsScored
1	1	John Doe	1	Computer Science	Bachelor of Science	601	Introduction to Python Programming	Completed	100	90
2	2	Jane Smith	2	Electrical Engineering	Bachelor of Engineering	602	Solar Energy Systems Design	Completed	100	82
3	3	Bob Johnson	3	Business Administration	Bachelor of Business Administration	603	Financial Modeling and Analysis	In Progress	100	83
4	4	Alice Brown	4	Psychology	Bachelor of Arts	604	Biotechnology Fundamentals	In Progress	100	96
5	5	Eva White	5	Data Science	Bachelor of Science	605	Digital Art Creation Workshop	Completed	100	89
6	6	Michael Black	6	Graphic Design	Bachelor of Fine Arts	606	Environmental Sustainability Practices	In Progress	100	94
7	7	Olivia Green	7	Environmental Science	Bachelor of Science	607	Web Development Bootcamp	Completed	100	85
8	7	Olivia Green	7	Environmental Science	Bachelor of Science	605	Digital Art Creation Workshop	Enrolled	NULL	NULL
9	8	David Grey	8	Finance	Bachelor of Business Administration	608	Music Production Mastery	In Progress	100	81
10	9	Sophie Turner	9	Mechanical Engineering	Bachelor of Engineering	609	Film Production Techniques	In Progress	100	92
11	10	Charlie Brown	10	Marketing	Bachelor of Business Administration	610	Healthcare Management Strategies	In Progress	100	94
12	11	Emma Stone	11	Biology	Bachelor of Science	611	Advanced Web Development	Completed	100	96
13	12	Frank Miller	12	Physics	Bachelor of Science	612	Astronomy and Celestial Objects	Completed	100	95
14	13	Grace Kelly	13	Biomedical Engineering	Bachelor of Engineering	613	Medical Devices Engineering	In Progress	100	81
15	14	Henry Ford	14	Political Science	Bachelor of Arts	614	Political Science Research Methods	In Progress	100	88
16	15	Ivy Green	15	Computer Engineering	Bachelor of Engineering	615	Mechanical Engineering Principles	Completed	100	91
17	16	Jack Johnson	16	English Literature	Bachelor of Arts	616	Creative Writing Masterclass	Completed	100	87
18	17	Karen White	17	Chemistry	Bachelor of Science	617	Organic Chemistry Essentials	In Progress	100	93
19	18	Liam Neeson	18	History	Bachelor of Arts	618	World History in Perspective	Completed	100	89
20	19	Megan Fox	19	Game Design	Bachelor of Fine Arts	619	Game Design Fundamentals	Completed	100	85
21	20	Nancy Drew	20	Management	Bachelor of Business Administration	620	Leadership and Management Strategies	In Progress	100	94

b. Instructor Ratings

```
Group17-DDLs.sql...NTLP12\foram (69))    ⊒ ×
    LEFT JOIN Feedback F ON F.SentTo = I.InstructorID
    GROUP BY I.InstructorID, A.FullName, I.Experience;


    -- To retrieve information from the InstructorRatings view
    SELECT * FROM InstructorRatings;
```

99 %

⊞ Results 📄 Messages

	InstructorID	InstructorName	Experience	AverageRating
1	1	John Doe	7 years of web development and programming exper...	4.5
2	2	Jane Smith	5 years of machine learning research and developme...	3.8
3	3	Bob Johnson	8 years of project management and leadership	5
4	4	Alice Brown	12 years of data analysis and statistical modeling	4.2
5	5	Eva White	10 years of software architecture and design	4.7
6	6	Michael Black	6 years of cybersecurity and ethical hacking expertise	3.5
7	7	Olivia Green	9 years of digital marketing and online advertising	4.9
8	8	David Grey	11 years of graphic design and creative arts	4
9	9	Sophie Turner	15 years of environmental science and sustainability r...	4.6
10	10	Charlie Brown	13 years of astrophysics research and astronomical st...	3.9
11	11	Emma Stone	8 years of biomedical engineering and medical devic...	4.3
12	12	Frank Miller	14 years of finance and investment strategy	4.8
13	13	Grace Kelly	10 years of project management and agile methodol...	4.1
14	14	Henry Ford	12 years of user experience (UX) design and usability...	4.4
15	15	Ivy Green	18 years of cognitive and behavioral psychology rese...	4.9
16	16	Jack Johnson	20 years of experience in media production and journ...	3.7
17	17	Karen White	15 years of game development and interactive design	4.5
18	18	Liam Neeson	16 years of organizational leadership and strategic m...	4.2
19	19	Megan Fox	10 years of instructional design and education techno...	4.6
20	20	Nancy Drew	8 years in Web Development and Design	4.8

c. Community Posts

```
Group17-DDLs.sql...NTLP12\foram (69))   ⊒ ×
    JOIN Community C ON P.CommunityID = C.CommunityID;

    -- To retrieve information from the CommunityPosts view
    SELECT * FROM CommunityPosts;
```

99 %

⊞ Results 📄 Messages

	PostID	PostTitle	PostContent	TimePosted	CommunityID	PostedByAccountID	PostedByFullName	AccountType	CommunityName
11	211	Historical Events	Discussing significant historical events.	2023-06-20 00:00:00.000	111	11	Emma Stone	Instructor	History Buffs
12	212	Nature Photography	Share your best nature photographs.	2023-06-25 00:00:00.000	112	12	Frank Miller	Advisor	Photography Enthusiasts
13	213	Environmental Conservation	How can we contribute to environmental conservati...	2023-07-01 00:00:00.000	113	13	Grace Kelly	Instructor	Environmentalists
14	214	Fitness Tips	Share your favorite fitness tips and routines.	2023-07-05 00:00:00.000	114	14	Henry Ford	Student	Fitness Fanatics
15	215	Favorite Video Games	Discussing your all-time favorite video games.	2023-07-10 00:00:00.000	115	15	Ivy Green	Student	Gaming Community
16	216	Book Recommendations	What books would you recommend?	2023-07-15 00:00:00.000	116	16	Jack Johnson	Instructor	Book Club
17	217	Adventurous Travel Stories	Share your most adventurous travel stories.	2023-07-20 00:00:00.000	117	17	Karen White	Student	Adventure Seekers
18	218	Hollywood Gossip	Latest gossip from the world of Hollywood.	2023-07-25 00:00:00.000	118	18	Liam Neeson	Student	Celeb Gossip
19	219	Solving Mysteries Together	Join the mystery-solving community!	2023-07-30 00:00:00.000	119	19	Megan Fox	Instructor	Mystery Solvers
20	220	Dream Destinations	Discussing your dream travel destinations.	2023-08-01 00:00:00.000	120	20	Nancy Drew	Student	Travel Enthusiasts
21	221	Reply to Introduction to Algebra	I love algebra! Let's dive into specific topics.	2023-08-05 00:00:00.000	101	5	Eva White	Instructor	Math Enthusiasts
22	222	Python Libraries Discussion	Which Python libraries are essential for data scienc...	2023-08-10 00:00:00.000	102	8	David Grey	Instructor	Programming Wizards
23	223	Career Advice Response	Consider exploring opportunities in the tech industry.	2023-08-15 00:00:00.000	103	10	Charlie Brown	Student	Career Guidance
24	224	Chemistry Experiments - Share Yours!	Here is my favorite chemistry experiment...	2023-08-20 00:00:00.000	104	15	Ivy Green	Student	Science Lovers
25	225	Reply to Data Science Tools	I recommend using pandas and scikit-learn for dat...	2023-08-25 00:00:00.000	105	2	Jane Smith	Instructor	Tech Innovators
26	226	Language Exchange Partner Found!	I am interested in language exchange. Lets connect!	2023-08-30 00:00:00.000	106	7	Olivia Green	Student	Language Learners
27	227	Startup Ideas - Collaboration Opportunity	I am looking for a partner to work on an exciting sta...	2023-09-01 00:00:00.000	107	12	Frank Miller	Advisor	Business Minds
28	228	Digital Art Showcase - Feedback Welcome	I would appreciate feedback on my latest digital art ...	2023-09-05 00:00:00.000	108	18	Liam Neeson	Student	Artists Unite
29	229	Music Recommendations - Share Your Playlist	Here is my current favorite playlist. What is yours?	2023-09-10 00:00:00.000	109	9	Sophie Turner	Student	Music Masters
30	230	Film Reviews - Discussion Thread	What are your thoughts on the latest blockbuster m...	2023-09-15 00:00:00.000	110	14	Henry Ford	Student	Film Buffs
31	231	Historical Events - Personal Insights	I find the events of the Renaissance fascinating. Wh...	2023-09-20 00:00:00.000	111	3	Bob Johnson	Advisor	History Buffs
32	232	Nature Photography - Lets Share	This is my favorite nature photograph. Share yours!	2023-09-25 00:00:00.000	112	17	Karen White	Student	Photography Enthusiasts
33	233	Environmental Conservation - Tips and Tricks	Lets discuss practical ways to contribute to environ...	2023-10-01 00:00:00.000	113	19	Megan Fox	Instructor	Environmentalists
34	234	Fitness Tips - New Workout Routine	I have discovered a great workout routine. Anyone i...	2023-10-05 00:00:00.000	114	6	Michael Black	Instructor	Fitness Fanatics
35	235	Favorite Video Games - Nostalgia Time	Remember the classics? Lets talk about our favorit...	2023-10-10 00:00:00.000	115	11	Emma Stone	Instructor	Gaming Community
36	236	Book Recommendations - Mystery Novels	I am into mystery novels lately. Any recommendatio...	2023-10-15 00:00:00.000	116	16	Jack Johnson	Instructor	Book Club
37	237	Travel Stories - Share Yours!	I had an amazing adventure in Southeast Asia. Any...	2023-10-20 00:00:00.000	117	1	John Doe	Student	Adventure Seekers
38	238	Hollywood Gossip - Latest Updates	Spill the tea! What is the latest Hollywood gossip?	2023-10-25 00:00:00.000	118	20	Nancy Drew	Student	Celeb Gossip
39	239	Solving Mysteries Together - Join the Challen...	Lets work together to solve this mystery!	2023-10-30 00:00:00.000	119	4	Alice Brown	Student	Mystery Solvers
40	240	Dream Destinations - Fantasy vs. Reality	Discussing the difference between dream destinati...	2023-11-01 00:00:00.000	120	13	Grace Kelly	Instructor	Travel Enthusiasts

3) DML Trigger

```
-----------------------------------------------------------------TRIGGER--
CREATE TRIGGER trg_CheckSentToSentBy
ON Feedback
AFTER INSERT, UPDATE
AS
BEGIN
    IF EXISTS (
        SELECT 1
        FROM inserted i
        WHERE NOT EXISTS (
            SELECT 1
            FROM (
                SELECT InstructorID AS AccountID FROM Instructor
                UNION ALL
                SELECT StudentID AS AccountID FROM Student
            ) AS Accounts
            WHERE Accounts.AccountID = i.SentTo
        )
    )
    BEGIN
        THROW 50001, 'Invalid SentTo value', 1;
    END

    IF EXISTS (
```

99 %

Messages

Commands completed successfully.

Completion time: 2023-11-28T20:54:23.2352031-05:00

4) Table-level CHECK Constraints
   a. Account:
      i. Email VARCHAR(50) CHECK (Email LIKE '%_@__%.__%')
      ii. AccountType VARCHAR(10) CHECK (AccountType IN ('Student', 'Advisor', 'Instructor'))

- GROUP17
  - Database Diagrams
  - Tables
    - System Tables
    - FileTables
    - External Tables
    - Graph Tables
    - dbo.Account
      - Columns
      - Keys
      - Constraints
        - CK_Account_Account_38996AB5
        - CK_Account_Email_37A5467C
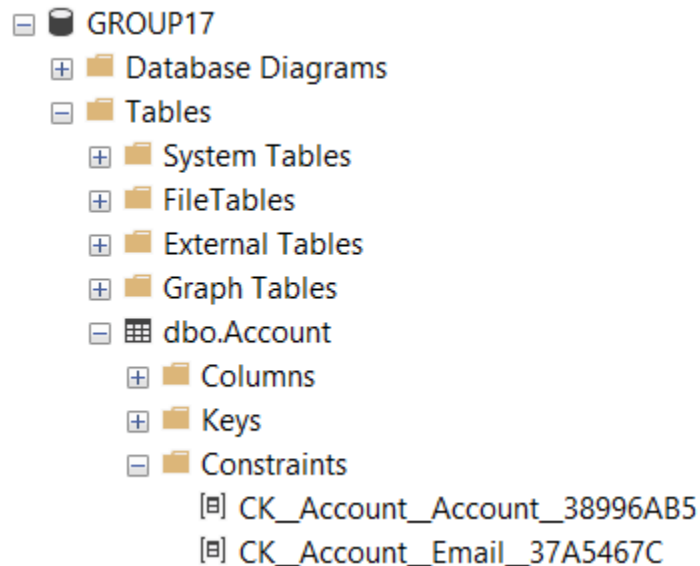
   b. Feedback :

Rating FLOAT CHECK (Rating >= 0 AND Rating <= 5)

- ⊟ ▦ dbo.Feedback
  - ⊞ 🟫 Columns
  - ⊞ 🟫 Keys
  - ⊟ 🟫 Constraints
    - ▣ CK_Feedback_Rating_534D60F1
    - ▦ DF_Feedback_Feedba_5441852A
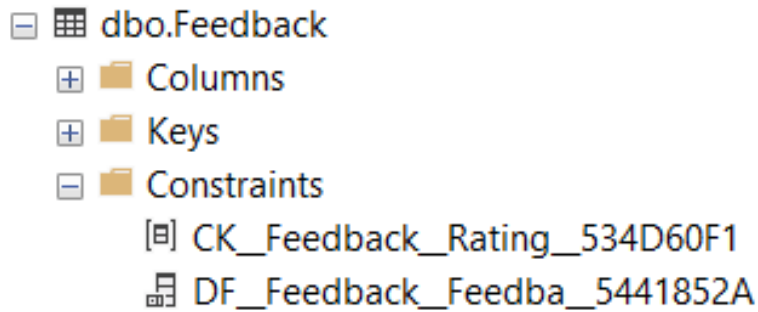
c. Payment:

PaymentMethod VARCHAR(50) not null CHECK (PaymentMethod IN ('Credit Card', 'Debit Card', 'PayPal', 'Bank Transfer', 'Cash', 'Reward Points'))

- ⊟ ▦ dbo.Payment
  - ⊞ 🟫 Columns
  - ⊞ 🟫 Keys
  - ⊟ 🟫 Constraints
    - ▣ CK_Payment_Payment_72C60C4A
  - ⊞ 🟫 Triggers
  - ⊞ 🟫 Indexes
  - ⊞ 🟫 Statistics
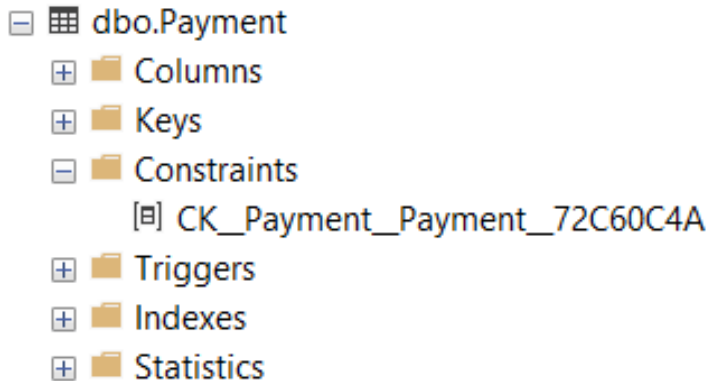
d. CourseEnrollment:

CertificationStatus VARCHAR(20)   CHECK (CertificationStatus IN ('Enrolled', 'Completed', 'Not Completed', 'In Progress', 'Pending Assessment', 'Withdrawn', 'Suspended'))

- ⊟ ▦ dbo.CourseEnrollment
  - ⊞ 🟫 Columns
  - ⊞ 🟫 Keys
  - ⊟ 🟫 Constraints
    - ▣ CK_CourseEnr_Certi_787EE5A0
    - ▦ DF_CourseEnr_Enrol_778AC167
  - ⊞ 🟫 Triggers
  - ⊞ 🟫 Indexes
  - ⊞ 🟫 Statistics
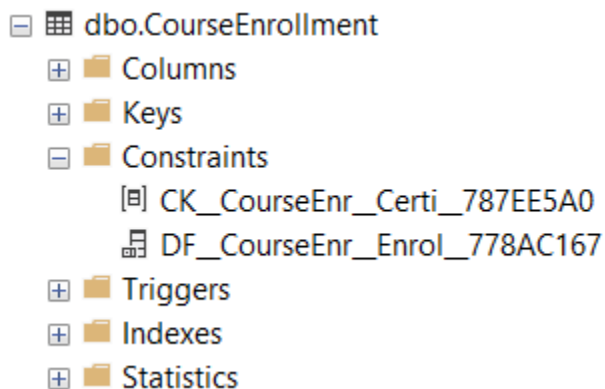
5) Computed Columns based on a user defined function (UDF)
   Course Completion time taken by Students:

```sql
    --COURSE COMPLETION TIME TAKEN BY STUDENTS--
CREATE FUNCTION fn_completiondate (@enrollid INT)
RETURNS INT
WITH SCHEMABINDING
AS
BEGIN
    DECLARE @completiontime INT;
    SELECT @completiontime = DATEDIFF(day, [EnrollmentDate], [CompletionDate])
    FROM [dbo].[CourseEnrollment]
    WHERE EnrollmentID = @enrollid;
    RETURN @completiontime;
END

ALTER TABLE [dbo].[CourseEnrollment]
ADD [CompletionTime] AS dbo.fn_completiondate([EnrollmentID])

SELECT * from CourseEnrollment;
```

99 % ▾ ◂

▦ Results ▦ Messages

	EnrollmentID	EnrollmentDate	CompletionDate	CertificationStatus	StudentID	CourseID	PaymentID	CompletionTime
1	1001	2023-11-22	2023-12-22	Completed	1	601	901	30
2	1002	2023-11-23	2023-12-23	Completed	2	602	902	30
3	1003	2023-11-24	NULL	In Progress	3	603	903	NULL
4	1004	2023-11-25	NULL	In Progress	4	604	904	NULL
5	1005	2023-11-26	2023-12-26	Completed	5	605	905	30
6	1006	2023-11-27	NULL	In Progress	6	606	906	NULL
7	1007	2023-11-28	2023-12-28	Completed	7	607	907	30
8	1008	2023-11-29	NULL	In Progress	8	608	908	NULL
9	1009	2023-11-30	NULL	In Progress	9	609	909	NULL
10	1010	2023-12-01	NULL	In Progress	10	610	910	NULL
11	1011	2023-12-02	2023-12-29	Completed	11	611	911	27
12	1012	2023-12-03	2023-12-30	Completed	12	612	912	27
13	1013	2023-12-04	NULL	In Progress	13	613	913	NULL
14	1014	2023-12-05	NULL	In Progress	14	614	914	NULL
15	1015	2023-12-06	2023-12-31	Completed	15	615	915	25
16	1016	2023-12-07	2023-12-31	Completed	16	616	916	24
17	1017	2023-12-08	NULL	In Progress	17	617	917	NULL
18	1018	2023-12-09	2024-01-01	Completed	18	618	918	23

6) Column Data Encryption

```sql
--------------------------------------------COLUMN DATA ENCRYPTION-------------------------------------
CREATE MASTER KEY ENCRYPTION BY PASSWORD = 'GROUP17';
CREATE CERTIFICATE PasswordEncryptionCertificate
    WITH SUBJECT = 'Password Encryption';
CREATE SYMMETRIC KEY PasswordKey
    WITH ALGORITHM = AES_256
    ENCRYPTION BY CERTIFICATE PasswordEncryptionCertificate;

ALTER TABLE Account
ADD PasswordEncrypted VARBINARY(MAX);
OPEN SYMMETRIC KEY PasswordKey
    DECRYPTION BY CERTIFICATE PasswordEncryptionCertificate;

UPDATE Account
SET PasswordEncrypted = EncryptByKey(Key_GUID('PasswordKey'), [Password]);

CLOSE SYMMETRIC KEY PasswordKey;

SELECT * FROM Account;
```
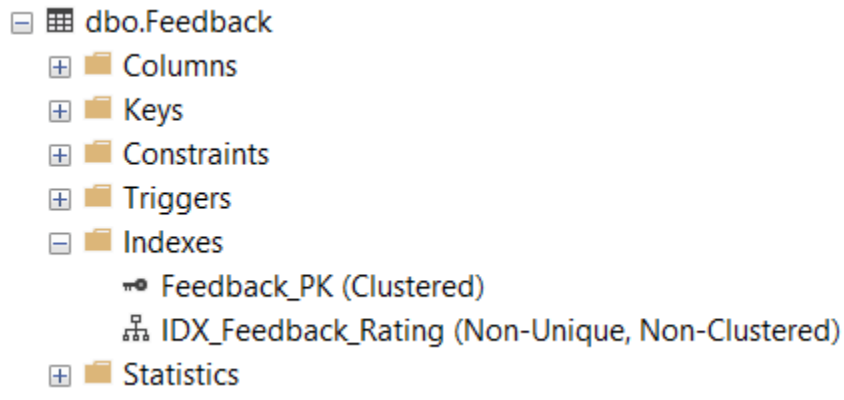
99 % ▾ ◂

▦ Results ▦ Messages

	AccountID	FullName	Username	Password	Email	DateCreated	PhoneNumber	AccountType	PasswordEncrypted
1	1	John Doe	john.doe	J0hnDoePa$$word	john.doe@elpms.com	2023-01-01	1234567890	Student	0x0084DC994641E74D9D41BCD267BD32D8020000009C2FDC...
2	2	Jane Smith	jane.smith	Passw0rd456	jane.smith@elpms.com	2023-02-15	9876543210	Instructor	0x0084DC994641E74D9D41BCD267BD32D802000000E59D853...
3	3	Bob Johnson	bob.johnson	B0b@Pass789	bob.johnson@elpms.com	2023-03-20	5551112222	Advisor	0x0084DC994641E74D9D41BCD267BD32D8020000007ADFD5...
4	4	Alice Brown	alice.brown	Alic3!Pass987	alice.brown@elpms.com	2023-04-10	1112223333	Student	0x0084DC994641E74D9D41BCD267BD32D802000000E7078E7...
5	5	Eva White	eva.white	eva@pass	eva.white@elpms.com	2023-05-05	9998887777	Student	0x0084DC994641E74D9D41BCD267BD32D802000000AE0858F...
6	6	Michael Black	michael.black	blackmike	michael.black@elpms.com	2023-06-15	4445556666	Instructor	0x0084DC994641E74D9D41BCD267BD32D8020000008B74A0D...
7	7	Olivia Green	olivia.green	green123	olivia.green@elpms.com	2023-07-20	7778889999	Student	0x0084DC994641E74D9D41BCD267BD32D8020000009DE362...
8	8	David Grey	david.grey	greydavid	david.grey@elpms.com	2023-08-10	2223334444	Instructor	0x0084DC994641E74D9D41BCD267BD32D802000000E2F0B51...
9	9	Sophie Turner	sophie.turner	sophiepass	sophie.turner@elpms.com	2023-09-05	6667778888	Student	0x0084DC994641E74D9D41BCD267BD32D802000000D21E77...
10	10	Charlie Brown	charlie.brown	peanuts123	charlie.brown@elpms.com	2023-10-12	3334445555	Student	0x0084DC994641E74D9D41BCD267BD32D8020000003BE5686...
11	11	Emma Stone	emma.stone	stoneemma	emma.stone@elpms.com	2023-11-18	8889990000	Instructor	0x0084DC994641E74D9D41BCD267BD32D802000000C7711EE...
12	12	Frank Miller	frank.miller	darkknight	frank.miller@elpms.com	2023-12-25	7776665555	Advisor	0x0084DC994641E74D9D41BCD267BD32D802000000E81CCE...
13	13	Grace Kelly	grace.kelly	hollywood	grace.kelly@elpms.com	2024-01-30	4445556666	Student	0x0084DC994641E74D9D41BCD267BD32D8020000006CB461B...
14	14	Henry Ford	henry.ford	assemblyline	henry.ford@elpms.com	2024-02-14	1112223333	Student	0x0084DC994641E74D9D41BCD267BD32D802000000F7548CA...
15	15	Ivy Green	ivy.green	naturelover	ivy.green@elpms.com	2024-03-22	9998887777	Student	0x0084DC994641E74D9D41BCD267BD32D802000000232476F...
16	16	Jack Johnson	jack.johnson	guitarhero	jack.johnson@elpms.com	2024-04-05	5554443333	Instructor	0x0084DC994641E74D9D41BCD267BD32D8020000000687AAC3...

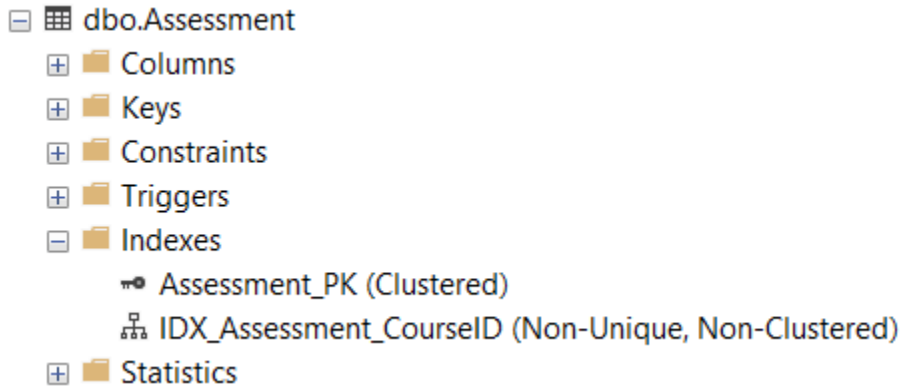⊘ Query executed successfully.   localhost (16.0 RTM) | DESKTOP-6NTLP12\foram ... | GROUP17 | 00:0

7) Non-Clustered indexes

a. CREATE NONCLUSTERED INDEX IDX_Feedback_Rating ON Feedback (Rating);

- ⊟ ⊞ dbo.Feedback
  - ⊞ ▪ Columns
  - ⊞ ▪ Keys
  - ⊞ ▪ Constraints
  - ⊞ ▪ Triggers
  - ⊟ ▪ Indexes
    - ⚬ Feedback_PK (Clustered)
    - ⚍ IDX_Feedback_Rating (Non-Unique, Non-Clustered)
  - ⊞ ▪ Statistics

b. CREATE NONCLUSTERED INDEX IDX_Assessment_CourseID ON Assessment (CourseID);

- ⊟ ⊞ dbo.Assessment
  - ⊞ ▪ Columns
  - ⊞ ▪ Keys
  - ⊞ ▪ Constraints
  - ⊞ ▪ Triggers
  - ⊟ ▪ Indexes
    - ⚬ Assessment_PK (Clustered)
    - ⚍ IDX_Assessment_CourseID (Non-Unique, Non-Clustered)
  - ⊞ ▪ Statistics

c. CREATE NONCLUSTERED INDEX IDX_Course_CourseTitle ON Course (CourseTitle);

- ⊟ ⊞ dbo.Course
  - ⊞ ▪ Columns
  - ⊞ ▪ Keys
  - ⊞ ▪ Constraints
  - ⊞ ▪ Triggers
  - ⊟ ▪ Indexes
    - ⚬ Course_PK (Clustered)
    - ⚍ IDX_Course_CourseTitle (Non-Unique, Non-Clustered)
  - ⊞ ▪ Statistics