**FINAL REPORT**



**Student Grading Management Sub-System**

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**Mssv :**  HE163742

**Class :** IA1604

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**Student Grading Management Sub-System**

For each subject that attended by the student, the lecture will give score to the assessment to each of their assessment. Below figure shows an Example of the assessments for course DBI202.

Table FML(Chưa được phân tách)



Category (hạng mục): Progress Tests , Assignment,Labs,Pe,FE

Type(loại) : Quiz , On-going, PE ,FE

Part(phần): Được làm bao nhiêu lần

Weight(trọng số từng hạng mục )

Completion Criteria(Điều kiện để thi và điểm tối thiểu để pass)

Duration(khoảng thời gian mà cần làm việc trong hạng mục): at home , in lab session

Question Type(Loại câu hỏi) :MTC

No Question(Số câu hỏi)

Knowledge and Skill

Grading Guide

Note:

Students can check their results at the end of semester as following example:

Table : Subject.(chưa được phân tách)



NO: number of subject

Subject code : one subject one code

Subject name : define of subject

Semester : season+year

Group:Lớp học

StartDate:thời điểm bắt đầu môn học

EndDate:thời điểm kết thúc môn học

Average mark: điểm trung bình

Status: not passed or passed

Each Subject code, student can check their detailed result of as below example:

Table Result of Mark (chưa được phân tách )



Grade category (hạng mục) : quiz 2

Grade Item(hạng mục) : thêm 1 row total

Weight: trọng số( cũng có ở bên FML table)

Value: mark.

In the system analyse , I can see that the Student Grading Management Sub-System have built about many main entities **: Assesment ; Grade ; Student ; Category ; Lecturers ; View ; Semester**  . Especially , Subject is the best important in Database . In addition , there are some entity : **Group\_Student ;Group; Course ; Category Details...**

First step , we should analyse more attribute in many entities :

Assessment (AssID,CategoryDetailsID,CourseID,Duration,Weight)

Category Details(CategoryDetailsID,CategoryID,CategoryDetailName)

Category(CategoryID,CategoryName,[Completion Criteria],Type)

Grade(SID,AssID,Score,[Date Exam])

Group\_Student(Gid,Sid)

Student(Sid,[First name],[Last name],Gender,DOB,Address)

Group(Gid,GName)

Lecturers(LecID,GID,[First Name],[Last Name],Gender)

Course(CourseID,CourseName)

View(Sid,CourseID,Semester,Average,Status)

Semester(SesID,SesName,StartDate,EndDate)

Phân Chia Các Entities Và Relationships

Entity Students <-> Entity Groups

Mô Tả: Một Student có thể đăng kí học nhiều Group Và 1 Group có thể có nhiều Student đăng kí học.

-> Xác Định Quan Hệ Giữa Entity Students Và Entity Groups là quan hệ nhiều nhiều ( n-n )

Entity Student <-> Entity Assessment System

Mô Tả: Một Student có thể có nhiều hệ thống đánh giá các đầu điểm và 1 Assessment System có thể phụ trách đầu điểm của nhiều Students.

-> Xác Định Quan Hệ Giữa Entity Students Và Entity Assessment System là quan hệ nhiều nhiều ( n-n )

Entity Category <-> Entity CategoryDetail

Mô Tả: Một Category có thể có nhiều phần nhỏ trong CategoryDetail

-> Xác Định Quan Hệ Giữa Entity Category Và Entity CategoryDetai là quan hệ nhiều nhiều ( 1-n )

Entity Courses <-> Entity Assessment System

Mô Tả: Một Course chỉ có thể có duy nhất 1 hệ thống đánh giá các đầu điểm và 1 Assessment System có thể là hệ thống đánh giá của nhiều Courses.

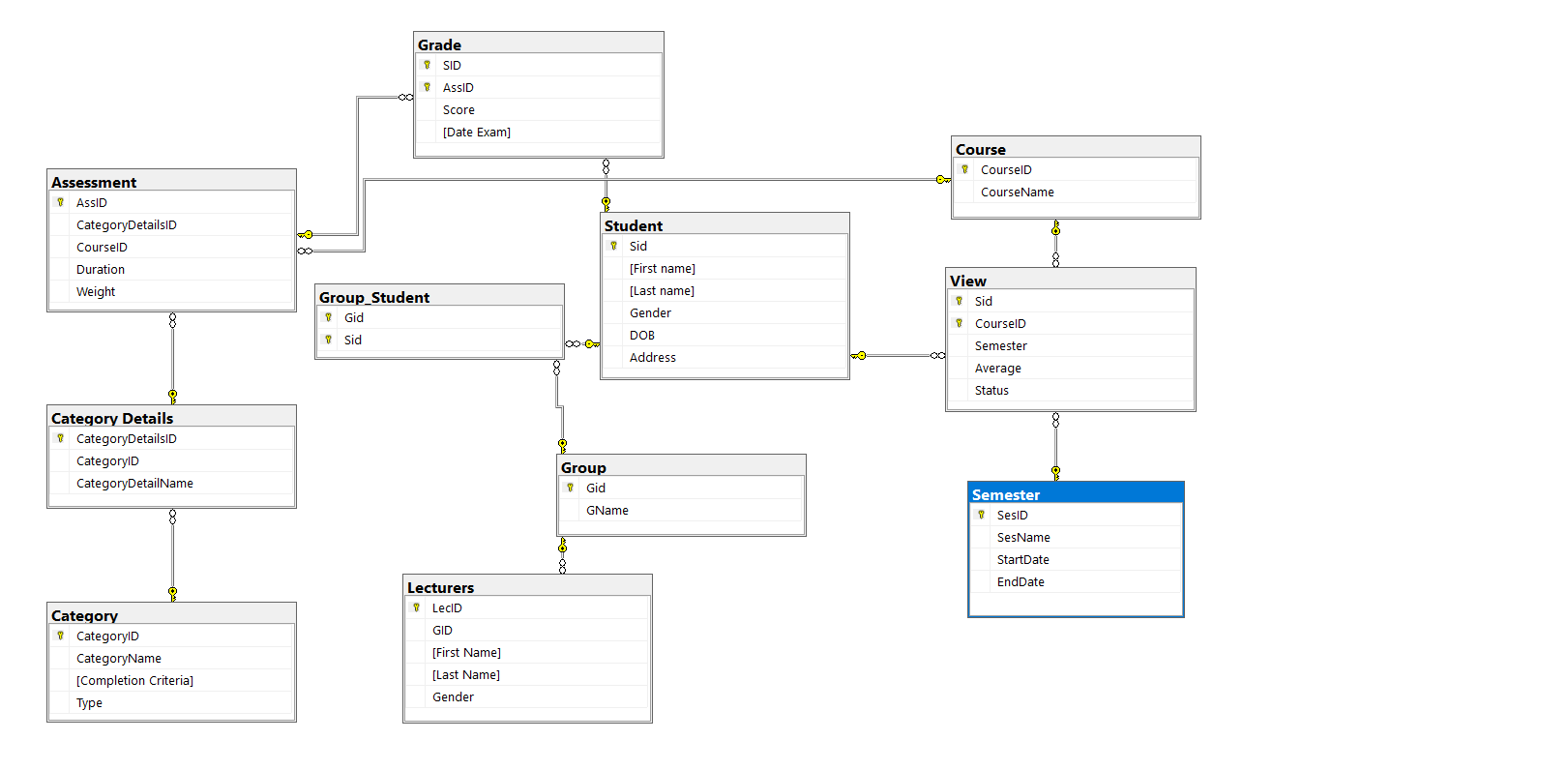
-> Xác Định Quan Hệ Giữa Entity Assessment System Và Entity Courses là quan hệ một nhiều ( 1-n )

Entity CategoryDetail <-> Entity Assignment Systems

Mô Tả: Một CategoryDetail có thể tổng hợp từ nhiều Assignment Systems và 1 Assignment Systems chỉ có thể đưa vào 1 Category duy nhất.

-> Xác Định Quan Hệ Giữa Entity CategoryDetail Và Entity Assignment Systems là quan hệ một nhiều ( 1-n )

Diagram of Grading Management :



**Chuẩn Hóa Thuộc Tính Các Attribute Trên Từng Bảng :**

1. Table Assement

|  |  |
| --- | --- |
| Attributes | Date Type |
| AssID | Varchar |
| CategoryDetailsID | Varchar |
| CourseID | Varchar |
| Duration | Nvarchar |
| Weight | float |

2.Table Category

|  |  |
| --- | --- |
| Attributes | Data Type |
| CategoryID | Varchar |
| CategoryName | nvarchar |
| [Completion Criterial] | Varchar |
| Type | Nvarchar |

3.Table Category Details

|  |  |
| --- | --- |
| Attributes | Data Type |
| CategoryDetailsID | Varchar |
| CategoryID | Varchar |
| CategoryDetailName | Nvarchar |

4.Table Course

|  |  |
| --- | --- |
| Attributes | Data Type |
| CourseID | Varchar |
| CourseName | Varchar |

5.Table Grade

|  |  |
| --- | --- |
| Attributes | Data Type |
| SID | Char |
| AssID | Varchar |
| Score | Float |
| Date Exam | Date |

6.Table Group

|  |  |
| --- | --- |
| Attributes | Data Type |
| Gid | Varchar |
| Gname | Nvarchar |

7.Table Group\_Student

|  |  |
| --- | --- |
| Attributes | Data Type |
| Gid | Varchar |
| Sid | Char |

8.Table Lecturers

|  |  |
| --- | --- |
| Attributes | Data Type |
| LecID | Varchar |
| GID | Varchar |
| First Name | Varchar |
| Last Name | Varchar |
| Gender | bit |

9.Table Semester

|  |  |
| --- | --- |
| Attributes | Data Type |
| SesID | Varchar |
| SesName | Varchar |
| StartDate | Date |
| EndDate | Date |

10.Table Student

|  |  |
| --- | --- |
| Attributes | Data Type |
| Sid | Char |
| First name | Nvarchar |
| Last name | Nvarchar |
| Gender | Bit |
| DOB | Date |
| Address | Nvarchar |

11.Table View

|  |  |
| --- | --- |
| Attributes | Data Type |
| Sid | Char |
| CourseID | Varchar |
| Semester | Varchar |
| Average | Float |
| Status | Varchar |

## Xác Định Primary Key, Foriegn Key, Attributes Các TABLES :

1. Table Assement

|  |  |  |  |
| --- | --- | --- | --- |
| Attributes | Date Type | Requires | Key |
| AssID | Varchar | Not null | Primary Key |
| CategoryDetailsID | Varchar | Not null |  |
| CourseID | Varchar | Not null |  |
| Duration | Nvarchar | Not null |  |
| Weight | float | Not null |  |

2.Table Category

|  |  |  |  |
| --- | --- | --- | --- |
| Attributes | Data Type | Requires | Key |
| CategoryID | Varchar | Not null | Primary Key |
| CategoryName | nvarchar | Not null |  |
| [Completion Criterial] | Varchar | Not null |  |
| Type | Nvarchar | Not null |  |

3.Table Category Details

|  |  |  |  |
| --- | --- | --- | --- |
| Attributes | Data Type | Requires | Key |
| CategoryDetailsID | Varchar | Not null | Primary Key |
| CategoryID | Varchar | Not null | Primary\_Foreign Key |
| CategoryDetailName | Nvarchar | Not null |  |

4.Table Course

|  |  |  |  |
| --- | --- | --- | --- |
| Attributes | Data Type | Requires | Key |
| CourseID | Varchar | Not null | Primary Key |
| CourseName | Varchar | Not null |  |

5.Table Grade

|  |  |  |  |
| --- | --- | --- | --- |
| Attributes | Data Type | Requires | Key |
| SID | Char | Not null | Primary\_Foreign Key |
| AssID | Varchar | Not null | Primary\_Foreign Key |
| Score | Float | Not null |  |
| Date Exam | Date | Null |  |

6.Table Group

|  |  |  |  |
| --- | --- | --- | --- |
| Attributes | Data Type | Requires | Key |
| Gid | Varchar | Not null | Primary\_Key |
| Gname | Nvarchar | Not null |  |

7.Table Group\_Student

|  |  |  |  |
| --- | --- | --- | --- |
| Attributes | Data Type | Requires | Key |
| Gid | Varchar | Not null | Primary\_Foreign Key |
| Sid | Char | Not null | Primary\_Foreign Key |

8.Table Lecturers

|  |  |  |  |
| --- | --- | --- | --- |
| Attributes | Data Type | Requires | Key |
| LecID | Varchar | Not null | Primary |
| GID | Varchar | Not null | Primary\_Foreign Key |
| First Name | Varchar | Not null |  |
| Last Name | Varchar | Not null |  |
| Gender | bit | Not null |  |

9.Table Semester

|  |  |  |  |
| --- | --- | --- | --- |
| Attributes | Data Type | Requires | Key |
| SesID | Varchar | Not null | Primary Key |
| SesName | Varchar | Not null |  |
| StartDate | Date | Not null |  |
| EndDate | Date | Not null |  |

10.Table Student

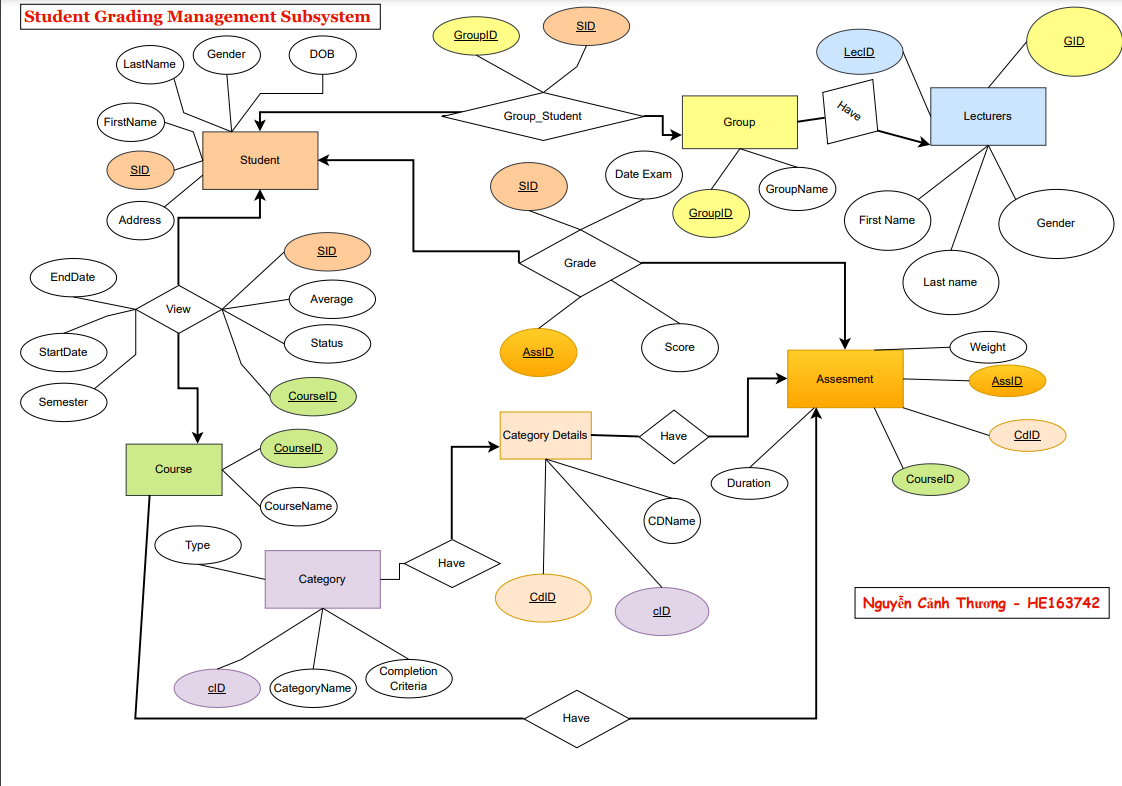
|  |  |  |  |
| --- | --- | --- | --- |
| Attributes | Data Type | Requires | Key |
| Sid | Char | Not null | Primary Key |
| First name | Nvarchar | Not null |  |
| Last name | Nvarchar | Not null |  |
| Gender | Bit | Not null |  |
| DOB | Date | Not null |  |
| Address | Nvarchar | Not null |  |

11.Table View

|  |  |  |  |
| --- | --- | --- | --- |
| Attributes | Data Type | Requires | Key |
| Sid | Char | Not null | Primary Key |
| CourseID | Varchar | Not null | Foregin Key |
| Semester | Varchar | Not null |  |
| Average | Float | Not null |  |
| Status | Varchar | Not null |  |

## Database\_Diagram

### Hình Ảnh Và Mô Tả



## Creat Table And Attributes

### Code sql

### Image + Results:

|  |  |
| --- | --- |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  | CREATE TABLE [dbo].[Assessment](  [AssID] [varchar](10) NOT NULL,  [CategoryDetailsID] [varchar](10) NOT NULL foreign key references Category Details(CategoryDetailsID),  [CourseID] [varchar](10) NOT NULL,  [Duration] [nvarchar](30) NOT NULL,  )  CREATE TABLE [dbo].[Category](  [CategoryID] [varchar](10) NOT NULL,  [CategoryName] [nvarchar](50) NOT NULL,  [Completion Criteria] [varchar](10) NOT NULL,  [Type] [nvarchar](50) NOT NULL,  )  CREATE TABLE [dbo].[Category Details](  [CategoryDetailsID] [varchar](10) NOT NULL,  [CategoryID] [varchar](10) NOT NULL,  [CategoryDetailName] [nvarchar](50) NOT NULL,  )  CREATE TABLE [dbo].[Course](  [CourseID] [varchar](10) NOT NULL,  [CourseName] [varchar](50) NOT NULL,  )  CREATE TABLE [dbo].[Grade](  [SID] [char](8) NOT NULL,  [AssID] [varchar](10) NOT NULL,  [Score] [float] NOT NULL,  [Date Exam] [date] NULL,  )  CREATE TABLE [dbo].[Group](  [Gid] [varchar](10) NOT NULL,  [GName] [nvarchar](50) NOT NULL,  )  CREATE TABLE [dbo].[Group\_Student](  [Gid] [varchar](10) NOT NULL,  [Sid] [char](8) NOT NULL,  )  CREATE TABLE [dbo].[Lecturers](  [LecID] [varchar](10) NOT NULL,  [GID] [varchar](10) NOT NULL,  [First Name] [varchar](50) NOT NULL,  [Last Name] [varchar](50) NOT NULL,  [Gender] [bit] NOT NULL,  )  CREATE TABLE [dbo].[Semester](  [SesID] [varchar](10) NOT NULL,  [SesName] [varchar](50) NOT NULL,  [StartDate] [date] NOT NULL,  [EndDate] [date] NOT NULL,  )  CREATE TABLE [dbo].[Student](  [Sid] [char](8) NOT NULL,  [First name] [nvarchar](50) NOT NULL,  [Last name] [nvarchar](50) NOT NULL,  [Gender] [bit] NOT NULL,  [DOB] [date] NOT NULL,  [Address] [nvarchar](150) NULL,  )  CREATE TABLE [dbo].[View](  [Sid] [char](8) NOT NULL,  [CourseID] [varchar](10) NOT NULL,  [Semester] [varchar](10) NOT NULL,  [Average] [float] NULL,  [Status] [varchar](20) NULL,  ) |
|  |  |
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|  |  |
|  |  |
|  |  |
|  | CREATE DATABASE AND CODE :  USE [Grading Management ]  GO  INSERT [dbo].[Category] ([CategoryID], [CategoryName], [Completion Criteria], [Type]) VALUES (N'ACT', N'Activity', 0, N'on-going')  INSERT [dbo].[Category] ([CategoryID], [CategoryName], [Completion Criteria], [Type]) VALUES (N'ASS', N'Assignment', 0, N'on-going')  INSERT [dbo].[Category] ([CategoryID], [CategoryName], [Completion Criteria], [Type]) VALUES (N'FE', N'Final Exam', 4, N'final exam')  INSERT [dbo].[Category] ([CategoryID], [CategoryName], [Completion Criteria], [Type]) VALUES (N'GA', N'Group asm', 0, N'on-going')  INSERT [dbo].[Category] ([CategoryID], [CategoryName], [Completion Criteria], [Type]) VALUES (N'GP', N'Group Project', 0, N'on-going')  INSERT [dbo].[Category] ([CategoryID], [CategoryName], [Completion Criteria], [Type]) VALUES (N'LAB', N'Lab', 0, N'on-going')  INSERT [dbo].[Category] ([CategoryID], [CategoryName], [Completion Criteria], [Type]) VALUES (N'ME', N'Mid-term test', 0, N'on-going')  INSERT [dbo].[Category] ([CategoryID], [CategoryName], [Completion Criteria], [Type]) VALUES (N'PA', N'Participation', 0, N'on-going')  INSERT [dbo].[Category] ([CategoryID], [CategoryName], [Completion Criteria], [Type]) VALUES (N'PE', N'Practice Exam', 0, N'practical exam')  INSERT [dbo].[Category] ([CategoryID], [CategoryName], [Completion Criteria], [Type]) VALUES (N'PEc', N'Practice Exam', 4, N'final exam')  INSERT [dbo].[Category] ([CategoryID], [CategoryName], [Completion Criteria], [Type]) VALUES (N'PRE', N'Group presentation', 0, N'on-going')  INSERT [dbo].[Category] ([CategoryID], [CategoryName], [Completion Criteria], [Type]) VALUES (N'PT', N'Progress Test', 0, N'quiz')  INSERT [dbo].[Category] ([CategoryID], [CategoryName], [Completion Criteria], [Type]) VALUES (N'QUIZ', N'Quiz', 0, N'on-going')  INSERT [dbo].[Category] ([CategoryID], [CategoryName], [Completion Criteria], [Type]) VALUES (N'TE', N'Theory Exam', 4, N'final exam')  INSERT [dbo].[Category] ([CategoryID], [CategoryName], [Completion Criteria], [Type]) VALUES (N'WS', N'Workshop', 0, N'on-going')  GO  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'ACT1', N'ACT', N'Activity 1')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'ACT2', N'ACT', N'Activity 2')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'ACT3', N'ACT', N'Activity 3')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'ASS', N'ASS', N'Assignment ')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'ASS1', N'ASS', N'Assignment 1')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'ASS2', N'ASS', N'Assignment 2')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'ASS3', N'ASS', N'Assignment 3')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'ASS4', N'ASS', N'Assignment 4')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'ASS5', N'ASS', N'Assignment 5')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'ASS6', N'ASS', N'Assignment 6')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'ASS7', N'ASS', N'Assignment 7')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'ASS8', N'ASS', N'Assignment 8')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'FE', N'FE', N'Final Exam')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'GA1', N'GA', N'Group asm 1')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'GA2', N'GA', N'Group asm 2')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'GP1', N'GP', N'Group Project 1')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'GP2', N'GP', N'Group Project 2')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'GP3', N'GP', N'Group Project 3')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'LAB1', N'LAB', N'Lab 1')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'LAB2', N'LAB', N'Lab 2')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'LAB3', N'LAB', N'Lab 3')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'LAB4', N'LAB ', N'Lab 4')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'LAB5', N'LAB', N'Lab 5')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'LAB6', N'LAB', N'Lab 6')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'ME', N'ME', N'Mid-term test')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'PA', N'PA', N'Participation')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'PE', N'PE', N'Practice Exam')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'PEc', N'PEc', N'Practice Exam')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'PRE1', N'PRE', N'Presentation 1')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'PRE2', N'PRE', N'Presentation 2')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'PRE3', N'PRE', N'Presentation 3')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'PRE4', N'PRE', N'Presentation 4 ')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'PT1', N'PT', N'Progress Test')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'PT2', N'PT', N'Progress Test 2')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'PT3', N'PT', N'Progress Test 3')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'QUIZ', N'QUIZ', N'Quiz')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'TE', N'TE', N'Theory Exam')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'WS1', N'WS', N'Workshop 1')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'WS2', N'WS', N'Workshop 2')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'WS3', N'WS', N'Workshop 3')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'WS4', N'WS', N'Workshop 4')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'WS5', N'WS', N'Workshop 5')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'WS6', N'WS', N'Workshop 6')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'WS7', N'WS', N'Workshop 7')  INSERT [dbo].[Category Details] ([CategoryDetailsID], [CategoryID], [CategoryDetailName]) VALUES (N'WS8', N'WS', N'Workshop 8')  GO  INSERT [dbo].[Student] ([Sid], [First name], [Last name], [Gender], [DOB], [Address]) VALUES (N'HE163740', N'Nguyen Canh', N'Thuong', 1, CAST(N'2002-12-01' AS Date), N'Nghe An')  INSERT [dbo].[Student] ([Sid], [First name], [Last name], [Gender], [DOB], [Address]) VALUES (N'HE163741', N'Nguyen Quoc', N'Khanh', 1, CAST(N'2002-12-02' AS Date), N'Thai Binh')  INSERT [dbo].[Student] ([Sid], [First name], [Last name], [Gender], [DOB], [Address]) VALUES (N'HE163742', N'Dang Ngoc ', N'Anh', 1, CAST(N'2002-12-03' AS Date), N'Ha Giang')  INSERT [dbo].[Student] ([Sid], [First name], [Last name], [Gender], [DOB], [Address]) VALUES (N'HE163743', N'Pham Quang', N'Hung', 1, CAST(N'2002-12-04' AS Date), N'Thanh Hoa')  INSERT [dbo].[Student] ([Sid], [First name], [Last name], [Gender], [DOB], [Address]) VALUES (N'HE163744', N'Hoang Huyen', N'Dieu', 0, CAST(N'2002-12-05' AS Date), N'Hai Phong')  INSERT [dbo].[Student] ([Sid], [First name], [Last name], [Gender], [DOB], [Address]) VALUES (N'HE163745', N'Dinh Thuy ', N'Lan', 0, CAST(N'2002-12-06' AS Date), N'Son Tay')  INSERT [dbo].[Student] ([Sid], [First name], [Last name], [Gender], [DOB], [Address]) VALUES (N'HE163746', N'Nguyen An ', N'Tuan', 1, CAST(N'2002-12-07' AS Date), N'Ha Noi')  INSERT [dbo].[Student] ([Sid], [First name], [Last name], [Gender], [DOB], [Address]) VALUES (N'HE163747', N'Nguyen Ha', N'Phuong', 0, CAST(N'2002-12-08' AS Date), N'Nam Dinh')  INSERT [dbo].[Student] ([Sid], [First name], [Last name], [Gender], [DOB], [Address]) VALUES (N'HE163748', N'Nguyen An ', N'Dat', 1, CAST(N'2002-12-09' AS Date), N'Quang Binh')  INSERT [dbo].[Student] ([Sid], [First name], [Last name], [Gender], [DOB], [Address]) VALUES (N'HE163749', N'Nguyen Thi', N'Quynh Trang', 0, CAST(N'2002-12-10' AS Date), N'Ha Tinh')  INSERT [dbo].[Student] ([Sid], [First name], [Last name], [Gender], [DOB], [Address]) VALUES (N'HE163750', N'Hoang Viet ', N'Phuong', 0, CAST(N'2002-12-11' AS Date), N'Ninh Binh')  INSERT [dbo].[Student] ([Sid], [First name], [Last name], [Gender], [DOB], [Address]) VALUES (N'HE163751', N'Do Trong ', N'Tuan', 1, CAST(N'2002-12-12' AS Date), N'Bac Giang')  INSERT [dbo].[Student] ([Sid], [First name], [Last name], [Gender], [DOB], [Address]) VALUES (N'HE163752', N'Kim Thi', N'Hong Quyen', 0, CAST(N'2002-11-01' AS Date), N'Hung Yen')  INSERT [dbo].[Student] ([Sid], [First name], [Last name], [Gender], [DOB], [Address]) VALUES (N'HE163753', N'Vu Duy', N'Duc', 1, CAST(N'2002-11-02' AS Date), N'Phu Tho')  INSERT [dbo].[Student] ([Sid], [First name], [Last name], [Gender], [DOB], [Address]) VALUES (N'HE163754', N'Nguyen Quang ', N'Huy', 1, CAST(N'2002-11-03' AS Date), N'Hoa Binh')  GO  INSERT [dbo].[Group] ([Gid], [GName]) VALUES (N'IA1', N'IA1604')  INSERT [dbo].[Group] ([Gid], [GName]) VALUES (N'SE1', N'SE1636')  INSERT [dbo].[Group] ([Gid], [GName]) VALUES (N'SE2', N'SE1647')  GO  INSERT [dbo].[Group\_Student] ([Gid], [Sid]) VALUES (N'IA1', N'HE163750')  INSERT [dbo].[Group\_Student] ([Gid], [Sid]) VALUES (N'IA1', N'HE163751')  INSERT [dbo].[Group\_Student] ([Gid], [Sid]) VALUES (N'IA1', N'HE163752')  INSERT [dbo].[Group\_Student] ([Gid], [Sid]) VALUES (N'IA1', N'HE163753')  INSERT [dbo].[Group\_Student] ([Gid], [Sid]) VALUES (N'IA1', N'HE163754')  INSERT [dbo].[Group\_Student] ([Gid], [Sid]) VALUES (N'SE1', N'HE163740')  INSERT [dbo].[Group\_Student] ([Gid], [Sid]) VALUES (N'SE1', N'HE163741')  INSERT [dbo].[Group\_Student] ([Gid], [Sid]) VALUES (N'SE1', N'HE163742')  INSERT [dbo].[Group\_Student] ([Gid], [Sid]) VALUES (N'SE1', N'HE163743')  INSERT [dbo].[Group\_Student] ([Gid], [Sid]) VALUES (N'SE1', N'HE163744')  INSERT [dbo].[Group\_Student] ([Gid], [Sid]) VALUES (N'SE2', N'HE163745')  INSERT [dbo].[Group\_Student] ([Gid], [Sid]) VALUES (N'SE2', N'HE163746')  INSERT [dbo].[Group\_Student] ([Gid], [Sid]) VALUES (N'SE2', N'HE163747')  INSERT [dbo].[Group\_Student] ([Gid], [Sid]) VALUES (N'SE2', N'HE163748')  INSERT [dbo].[Group\_Student] ([Gid], [Sid]) VALUES (N'SE2', N'HE163749')  GO  INSERT [dbo].[Course] ([CourseID], [CourseName]) VALUES (N'CSI104', N'Introduction to Computer Science')  INSERT [dbo].[Course] ([CourseID], [CourseName]) VALUES (N'MAD101', N'Discrete mathematics')  INSERT [dbo].[Course] ([CourseID], [CourseName]) VALUES (N'MAE101', N'Mathematics for Enginerring')  INSERT [dbo].[Course] ([CourseID], [CourseName]) VALUES (N'PRF192', N'Programming Fundamentals')  INSERT [dbo].[Course] ([CourseID], [CourseName]) VALUES (N'SSL101c', N'Academic Skills ')  GO  INSERT [dbo].[Assessment] ([AssID], [CategoryDetailsID], [CourseID], [Duration], [Weight]) VALUES (N'CSI\_FE', N'FE', N'CSI104', N'01:00:00', 40)  INSERT [dbo].[Assessment] ([AssID], [CategoryDetailsID], [CourseID], [Duration], [Weight]) VALUES (N'CSI\_LAB1', N'LAB1', N'CSI104', N'01:00:00', 10)  INSERT [dbo].[Assessment] ([AssID], [CategoryDetailsID], [CourseID], [Duration], [Weight]) VALUES (N'CSI\_LAB2', N'LAB2', N'CSI104', N'01:00:00', 10)  INSERT [dbo].[Assessment] ([AssID], [CategoryDetailsID], [CourseID], [Duration], [Weight]) VALUES (N'CSI\_PRE1', N'PRE1', N'CSI104', N'00:10:00', 5)  INSERT [dbo].[Assessment] ([AssID], [CategoryDetailsID], [CourseID], [Duration], [Weight]) VALUES (N'CSI\_PRE2', N'PRE2', N'CSI104', N'00:10:00', 5)  INSERT [dbo].[Assessment] ([AssID], [CategoryDetailsID], [CourseID], [Duration], [Weight]) VALUES (N'CSI\_PT1', N'PT1', N'CSI104', N'01:00:00', 15)  INSERT [dbo].[Assessment] ([AssID], [CategoryDetailsID], [CourseID], [Duration], [Weight]) VALUES (N'CSI\_PT2', N'PT2', N'CSI104', N'01:00:00', 15)  INSERT [dbo].[Assessment] ([AssID], [CategoryDetailsID], [CourseID], [Duration], [Weight]) VALUES (N'MAE\_ASS1', N'ASS1', N'MAE101', N'00:20:00', 10)  INSERT [dbo].[Assessment] ([AssID], [CategoryDetailsID], [CourseID], [Duration], [Weight]) VALUES (N'MAE\_ASS2', N'ASS2', N'MAE101', N'00:20:00', 10)  INSERT [dbo].[Assessment] ([AssID], [CategoryDetailsID], [CourseID], [Duration], [Weight]) VALUES (N'MAE\_ASS3', N'ASS3', N'MAE101', N'00:20:00', 10)  INSERT [dbo].[Assessment] ([AssID], [CategoryDetailsID], [CourseID], [Duration], [Weight]) VALUES (N'MAE\_FE', N'FE', N'MAE101', N'00:10:00', 40)  INSERT [dbo].[Assessment] ([AssID], [CategoryDetailsID], [CourseID], [Duration], [Weight]) VALUES (N'MAE\_PT1', N'PT1', N'MAE101', N'00:20:00', 10)  INSERT [dbo].[Assessment] ([AssID], [CategoryDetailsID], [CourseID], [Duration], [Weight]) VALUES (N'MAE\_PT2', N'PT2', N'MAE101', N'00:20:00', 10)  INSERT [dbo].[Assessment] ([AssID], [CategoryDetailsID], [CourseID], [Duration], [Weight]) VALUES (N'MAE\_PT3', N'PT3', N'MAE101', N'00:20:00', 10)  INSERT [dbo].[Assessment] ([AssID], [CategoryDetailsID], [CourseID], [Duration], [Weight]) VALUES (N'PRF\_ASS', N'ASS', N'PRF192', N'01:00:00', 10)  INSERT [dbo].[Assessment] ([AssID], [CategoryDetailsID], [CourseID], [Duration], [Weight]) VALUES (N'PRF\_FE', N'FE', N'PRF192', N'01:00:00', 10)  INSERT [dbo].[Assessment] ([AssID], [CategoryDetailsID], [CourseID], [Duration], [Weight]) VALUES (N'PRF\_PE', N'PE', N'PRF192', N'01:30:00', 10)  INSERT [dbo].[Assessment] ([AssID], [CategoryDetailsID], [CourseID], [Duration], [Weight]) VALUES (N'PRF\_PT1', N'PT1', N'PRF192', N'00:25:00', 5)  INSERT [dbo].[Assessment] ([AssID], [CategoryDetailsID], [CourseID], [Duration], [Weight]) VALUES (N'PRF\_PT2', N'PT2', N'PRF192', N'00:25:00', 5)  INSERT [dbo].[Assessment] ([AssID], [CategoryDetailsID], [CourseID], [Duration], [Weight]) VALUES (N'PRF\_WS1', N'WS1', N'PRF192', N'02:00:00', 1.3)  INSERT [dbo].[Assessment] ([AssID], [CategoryDetailsID], [CourseID], [Duration], [Weight]) VALUES (N'PRF\_WS2', N'WS2', N'PRF192', N'02:00:00', 1.3)  INSERT [dbo].[Assessment] ([AssID], [CategoryDetailsID], [CourseID], [Duration], [Weight]) VALUES (N'PRF\_WS3', N'WS3', N'PRF192', N'02:00:00', 1.3)  INSERT [dbo].[Assessment] ([AssID], [CategoryDetailsID], [CourseID], [Duration], [Weight]) VALUES (N'PRF\_WS4', N'WS4', N'PRF192', N'02:00:00', 1.3)  INSERT [dbo].[Assessment] ([AssID], [CategoryDetailsID], [CourseID], [Duration], [Weight]) VALUES (N'PRF\_WS5', N'WS5', N'PRF192', N'02:00:00', 1.3)  INSERT [dbo].[Assessment] ([AssID], [CategoryDetailsID], [CourseID], [Duration], [Weight]) VALUES (N'PRF\_WS6', N'WS6', N'PRF192', N'02:00:00', 1.3)  INSERT [dbo].[Assessment] ([AssID], [CategoryDetailsID], [CourseID], [Duration], [Weight]) VALUES (N'PRF\_WS7', N'WS7', N'PRF192', N'02:00:00', 1.3)  INSERT [dbo].[Assessment] ([AssID], [CategoryDetailsID], [CourseID], [Duration], [Weight]) VALUES (N'PRF\_WS8', N'WS8', N'PRF192', N'02:00:00', 1.3)  GO  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163740', N'CSI\_FE', 7.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163740', N'CSI\_LAB1', 7.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163740', N'CSI\_LAB2', 7.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163740', N'CSI\_PRE1', 7.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163740', N'CSI\_PRE2', 7.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163740', N'CSI\_PT1', 5.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163740', N'CSI\_PT2', 5.3, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163741', N'CSI\_FE', 7.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163741', N'CSI\_LAB1', 6.3, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163741', N'CSI\_LAB2', 8.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163741', N'CSI\_PRE1', 8.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163741', N'CSI\_PRE2', 5.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163741', N'CSI\_PT1', 6.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163741', N'CSI\_PT2', 6.3, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163742', N'CSI\_FE', 7.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163742', N'CSI\_LAB1', 7.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163742', N'CSI\_LAB2', 7.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163742', N'CSI\_PRE1', 7.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163742', N'CSI\_PRE2', 7.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163742', N'CSI\_PT1', 7.4, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163742', N'CSI\_PT2', 7.3, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163742', N'MAE\_ASS1', 9, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163742', N'MAE\_ASS2', 5, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163742', N'MAE\_ASS3', 7.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163742', N'MAE\_FE', 6.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163742', N'MAE\_PT1', 8.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163742', N'MAE\_PT2', 5.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163742', N'MAE\_PT3', 7.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163742', N'PRF\_FE', 9, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163742', N'PRF\_PE', 6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163742', N'PRF\_PT1', 6.6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163742', N'PRF\_PT2', 6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163742', N'PRF\_WS1', 6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163742', N'PRF\_WS2', 6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163742', N'PRF\_WS3', 6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163742', N'PRF\_WS4', 8, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163742', N'PRF\_WS5', 6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163742', N'PRF\_WS6', 6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163742', N'PRF\_WS7', 6.7, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163742', N'PRF\_WS8', 6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163743', N'CSI\_PT1', 8.1, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163743', N'MAE\_ASS1', 8, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163743', N'MAE\_ASS2', 8.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163743', N'MAE\_ASS3', 8.9, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163743', N'MAE\_FE', 6.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163743', N'MAE\_PT1', 8.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163743', N'MAE\_PT2', 9.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163743', N'MAE\_PT3', 7.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163743', N'PRF\_ASS', 6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163743', N'PRF\_FE', 9, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163743', N'PRF\_PE', 8.5, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163743', N'PRF\_PT1', 6.6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163743', N'PRF\_PT2', 6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163743', N'PRF\_WS1', 6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163743', N'PRF\_WS2', 7, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163743', N'PRF\_WS3', 6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163743', N'PRF\_WS4', 8, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163743', N'PRF\_WS5', 6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163743', N'PRF\_WS6', 6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163743', N'PRF\_WS7', 6.7, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163743', N'PRF\_WS8', 6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163744', N'CSI\_PRE2', 8.3, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163744', N'CSI\_PT1', 8.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163744', N'MAE\_ASS1', 7, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163744', N'MAE\_ASS3', 7.9, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163744', N'PRF\_PE', 7.5, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163744', N'PRF\_WS2', 8, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163745', N'CSI\_PRE1', 8.9, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163745', N'CSI\_PRE2', 8.4, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163745', N'MAE\_ASS1', 6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163745', N'MAE\_ASS2', 7.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163745', N'MAE\_ASS3', 6.4, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163745', N'MAE\_FE', 6.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163745', N'MAE\_PT1', 8.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163745', N'MAE\_PT2', 5.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163745', N'MAE\_PT3', 7.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163745', N'PRF\_PE', 6.6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163745', N'PRF\_WS2', 9, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163745', N'PRF\_WS4', 9, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163745', N'PRF\_WS5', 9, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163746', N'CSI\_PRE1', 5.9, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163746', N'CSI\_PRE2', 6.6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163746', N'MAE\_ASS2', 10, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163746', N'MAE\_ASS3', 9, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163746', N'PRF\_PE', 7.8, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163746', N'PRF\_PT1', 6.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163746', N'PRF\_WS2', 6.5, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163746', N'PRF\_WS3', 6.5, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163746', N'PRF\_WS4', 10, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163746', N'PRF\_WS5', 8, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163747', N'CSI\_PRE1', 8.8, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163747', N'CSI\_PRE2', 7.3, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163747', N'MAE\_ASS1', 9, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163747', N'MAE\_ASS2', 8, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163747', N'MAE\_ASS3', 9.4, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163747', N'MAE\_FE', 8.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163747', N'MAE\_PT1', 6.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163747', N'MAE\_PT2', 5.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163747', N'MAE\_PT3', 7.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163747', N'PRF\_FE', 8, NULL)  GO  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163747', N'PRF\_PT1', 6.8, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163747', N'PRF\_WS3', 9.5, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163747', N'PRF\_WS4', 8, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163747', N'PRF\_WS5', 7, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163748', N'CSI\_PRE1', 7.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163748', N'CSI\_PRE2', 6.4, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163748', N'PRF\_FE', 9, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163748', N'PRF\_PT1', 6.7, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163748', N'PRF\_WS3', 7.5, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163748', N'PRF\_WS4', 7, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163748', N'PRF\_WS5', 6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163749', N'CSI\_PRE1', 6.3, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163749', N'CSI\_PRE2', 5.4, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163749', N'PRF\_FE', 7, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163749', N'PRF\_PT1', 9, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163749', N'PRF\_WS3', 8.5, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163749', N'PRF\_WS4', 6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163749', N'PRF\_WS5', 7.7, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163750', N'MAE\_ASS2', 8, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163750', N'PRF\_WS1', 5, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163750', N'PRF\_WS6', 7.3, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163751', N'CSI\_FE', 8.9, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163751', N'MAE\_ASS3', 7, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163751', N'PRF\_FE', 9, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163751', N'PRF\_PE', 6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163751', N'PRF\_PT1', 6.6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163751', N'PRF\_PT2', 6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163751', N'PRF\_WS1', 6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163751', N'PRF\_WS2', 6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163751', N'PRF\_WS3', 6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163751', N'PRF\_WS4', 8, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163751', N'PRF\_WS5', 6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163751', N'PRF\_WS6', 8.6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163751', N'PRF\_WS7', 6.7, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163751', N'PRF\_WS8', 6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163752', N'CSI\_FE', 5.6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163752', N'PRF\_WS6', 9.8, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163753', N'CSI\_FE', 7.2, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163753', N'PRF\_FE', 7, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163753', N'PRF\_WS1', 7, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163753', N'PRF\_WS6', 6.5, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163754', N'CSI\_FE', 6, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163754', N'MAE\_ASS3', 7.5, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163754', N'PRF\_FE', 8, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163754', N'PRF\_WS1', 8, NULL)  INSERT [dbo].[Grade] ([SID], [AssID], [Score], [Date Exam]) VALUES (N'HE163754', N'PRF\_WS6', 5.9, NULL)  GO  INSERT [dbo].[Semester] ([SesID], [SesName], [StartDate], [EndDate]) VALUES (N'FALL21', N'Fall 2021', CAST(N'2021-09-06' AS Date), CAST(N'2021-11-30' AS Date))  INSERT [dbo].[Semester] ([SesID], [SesName], [StartDate], [EndDate]) VALUES (N'SP21', N'Spring 2021', CAST(N'2021-09-06' AS Date), CAST(N'2021-03-25' AS Date))  INSERT [dbo].[Semester] ([SesID], [SesName], [StartDate], [EndDate]) VALUES (N'SP22', N'Spring 2022', CAST(N'2021-01-05' AS Date), CAST(N'2022-03-25' AS Date))  INSERT [dbo].[Semester] ([SesID], [SesName], [StartDate], [EndDate]) VALUES (N'SU21', N'Summer 2021', CAST(N'2021-05-06' AS Date), CAST(N'2021-07-02' AS Date))  GO  INSERT [dbo].[View] ([Sid], [CourseID], [Semester], [Average], [Status]) VALUES (N'HE163742', N'PRF192', N'Fall21', 2.789099999999999, N'NOT PASSED')  INSERT [dbo].[View] ([Sid], [CourseID], [Semester], [Average], [Status]) VALUES (N'HE163743', N'MAE101', N'Fall21', 7.45, N'PASSED')  INSERT [dbo].[View] ([Sid], [CourseID], [Semester], [Average], [Status]) VALUES (N'HE163743', N'PRF192', N'Fall21', 3.6521, N'NOT PASSED')  INSERT [dbo].[View] ([Sid], [CourseID], [Semester], [Average], [Status]) VALUES (N'HE163744', N'MAE101', N'Fall21', 1.4900000000000002, N'NOT PASSED')  INSERT [dbo].[View] ([Sid], [CourseID], [Semester], [Average], [Status]) VALUES (N'HE163744', N'PRF192', N'Fall21', 0.854, N'NOT PASSED')  INSERT [dbo].[View] ([Sid], [CourseID], [Semester], [Average], [Status]) VALUES (N'HE163745', N'MAE101', N'Fall21', 6.5000000000000009, N'PASSED')  INSERT [dbo].[View] ([Sid], [CourseID], [Semester], [Average], [Status]) VALUES (N'HE163745', N'PRF192', N'Fall21', 1.0110000000000001, N'NOT PASSED')  INSERT [dbo].[View] ([Sid], [CourseID], [Semester], [Average], [Status]) VALUES (N'HE163746', N'MAE101', N'Fall21', 1.9, N'NOT PASSED')  INSERT [dbo].[View] ([Sid], [CourseID], [Semester], [Average], [Status]) VALUES (N'HE163746', N'PRF192', N'Fall21', 1.4930000000000003, N'NOT PASSED')  INSERT [dbo].[View] ([Sid], [CourseID], [Semester], [Average], [Status]) VALUES (N'HE163747', N'MAE101', N'Fall21', 7.78, N'PASSED')  INSERT [dbo].[View] ([Sid], [CourseID], [Semester], [Average], [Status]) VALUES (N'HE163747', N'PRF192', N'Fall21', 1.4585000000000001, N'NOT PASSED')  GO  INSERT [dbo].[Lecturers] ([LecID], [GID], [First Name], [Last Name], [Gender]) VALUES (N'BanTQ', N'SE2', N'Tran Quy', N'Ban', 1)  INSERT [dbo].[Lecturers] ([LecID], [GID], [First Name], [Last Name], [Gender]) VALUES (N'Sonnt5', N'IA1', N'Ngo Tung', N'Son', 1)  INSERT [dbo].[Lecturers] ([LecID], [GID], [First Name], [Last Name], [Gender]) VALUES (N'TuanVM', N'SE1', N'Vuong Minh', N'Tuan', 1)  GO |
|  | Some code to completion the Assignment |
|  | -- update average  go  DECLARE @courseID varchar(10);  DECLARE @sID char(8);  DECLARE update\_total\_cursor CURSOR FOR  SELECT CourseID, sID FROM [View];  OPEN update\_total\_cursor;  FETCH NEXT FROM update\_total\_cursor INTO @courseiD, @sID  WHILE @@FETCH\_STATUS = 0  BEGIN  DECLARE @total float;  SELECT @total = sum(tbl1.Weight/100 \* Score) FROM  (SELECT a.\*, g.Score, g.sID FROM Assessment a  INNER JOIN Grade g on a.AssID = g.AssID ) tbl1 WHERE CourseID = @courseID and sid = @sid;  UPDATE [View] SET Average = @TOTAL WHERE CourseID = @courseID and sid = @sid;  FETCH NEXT FROM update\_total\_cursor INTO @courseID, @sid  END  CLOSE update\_total\_cursor;  DEALLOCATE update\_total\_cursor;  -- UPDATE STATUS  go  -- Hàm check điều kiện xem có điểm thành phần nào không đủ điều kiện không?.  CREATE FUNCTION check\_pass(@courseID varchar(10), @sID char(8))  RETURNS int  AS  BEGIN  DECLARE @flag int;  DECLARE @categoryID varchar(10);  SET @flag = 0;  DECLARE check\_pass\_cursor CURSOR FOR  SELECT [sID],CourseID, CategoryID FROM  (  SELECT g.sID, a.CourseID, c.CategoryID, AVG(Score) as sub\_total, [Completion Criteria] FROM Grade g  INNER JOIN Assessment a on g.AssID = a.AssID  INNER JOIN [Category Details] cd on cd.CategoryDetailsID = a.CategoryDetailsID  INNER JOIN Category c on c.CategoryID = cd.CategoryID GROUP BY CourseID, sID, c.CategoryID, [Completion Criteria]  ) as tbl1 WHERE CourseID = @courseID and [sID] = @sID ;  OPEN check\_pass\_cursor;  FETCH NEXT FROM check\_pass\_cursor INTO @sID, @courseID, @categoryID  WHILE @@FETCH\_STATUS = 0  BEGIN  DECLARE @score fLOAT;  DECLARE @scoreMin FLOAT  SELECT @score = sub\_total , @scoreMin = [Completion Criteria] FROM  (  SELECT g.sID, a.CourseID, c.CategoryID, AVG(Score) as sub\_total, [Completion Criteria]  FROM Grade g  INNER JOIN Assessment a on g.AssID = a.AssID  INNER JOIN [Category Details] cd on cd.CategoryDetailsID = a.CategoryDetailsID  INNER JOIN Category c on c.CategoryID = cd.CategoryID  GROUP BY CourseID, sID, c.CategoryID, [Completion Criteria]  ) as tbl1 WHERE tbl1.CourseID = @courseID AND tbl1.[sID] = @sID AND CategoryID = @categoryID  IF @score <= @scoreMin  BEGIN  set @flag = 1;  break;  END  FETCH NEXT FROM check\_pass\_cursor INTO @courseID, @sid, @categoryID  END  CLOSE check\_pass\_cursor;  DEALLOCATE check\_pass\_cursor;  return @flag;  END  GO  -- Stored Procedure update status is passed or not passed.  CREATE PROC update\_status\_pass  @courseID varchar(10),  @sID char(8)  AS  BEGIN  DECLARE @average1 FLOAT;  SELECT @average1 = Average FROM [View] WHERE CourseID = @courseID and [sID] = @sID ;  IF @average1 > 5 AND dbo.check\_pass(@courseID,@sID) = 0  UPDATE [View] SET [Status] = 'PASSED' WHERE CourseID = @courseID and [sID] = @sID ;  ELSE  UPDATE [View] SET [Status] = 'NOT PASSED' WHERE CourseID = @courseID and [sID] = @sID ;  END  -- cusor update status while have average.  go  DECLARE @courseID varchar(10);  DECLARE @sID char(8);  DECLARE update\_status\_cursor1 CURSOR FOR  SELECT CourseID, [sID] FROM [View];  OPEN update\_status\_cursor1;  FETCH NEXT FROM update\_status\_cursor1 INTO @courseiD, @sID  WHILE @@FETCH\_STATUS = 0  BEGIN  EXEC update\_status\_pass @CourseID, @sID  FETCH NEXT FROM update\_status\_cursor1 INTO @courseID, @sid  END  CLOSE update\_status\_cursor1;  DEALLOCATE update\_status\_cursor1;  --test  SELECT g.sID, a.CourseID, c.CategoryID, AVG(Score) as sub\_total, [Completion Criteria] FROM Grade g  INNER JOIN Assessment a on g.AssID = a.AssID  INNER JOIN [Category Details] cd on cd.CategoryDetailsID = a.CategoryDetailsID  INNER JOIN Category c on c.CategoryID = cd.CategoryID GROUP BY CourseID, sID, c.CategoryID, [Completion Criteria]  Having AVG(Score) >5  -- test  GO  -- procedure calculator sub\_total  CREATE PROC select\_sub\_total  AS  BEGIN  SELECT g.sID, a.CourseID, c.CategoryID, AVG(Score) as sub\_total, [Completion Criteria] FROM Grade g  INNER JOIN Assessment a on g.AssID = a.AssID  INNER JOIN [Category Details] cd on cd.CategoryDetailsID = a.CategoryDetailsID  INNER JOIN Category c on c.CategoryID = cd.CategoryID GROUP BY CourseID, sID, c.CategoryID, [Completion Criteria]  END  GO  EXEC select\_sub\_total  -- TRIGGER WHILE INPUT DATA AVERAGE OR STATUS--  GO  Drop TRIGGER View\_Average ON [View]  AFTER INSERT, UPDATE  AS  DECLARE @AVG FLOAT;  DECLARE @courseID VARCHAR(10);  DECLARE @ses varchar(10)  DECLARE @sID char(8);  DECLARE @average FLOAT;  DECLARE @status VARCHAR(20);  SELECT @sID = sID, @courseID = CourseID, @ses = Semester,  @average = Average, @status = [Status]  FROM inserted;  SELECT @AVG = sum(tbl1.Weight/100 \* Score) FROM  (SELECT a.\*, g.Score, g.sID FROM Assessment a  INNER JOIN Grade g on a.AssID = g.AssID WHERE sID = @sID and CourseID = @courseID  ) as tbl1 group by sID, CourseID  IF @AVG <> @average  BEGIN  PRINT 'Conflict input data'  ROLLBACK TRAN  END  ELSE IF (NOT @status = 'PASSED') AND (NOT @status = 'NOT PASSED')  BEGIN  PRINT 'Status must be passed or not passed'  ROLLBACK TRAN  END  ELSE IF (@AVG <= 5 AND @status = 'PASSED') OR (@AVG > 5 AND @status = 'NOT PASSED')  BEGIN  PRINT 'Incorrect Status'  ROLLBACK TRAN  END    UPDATE [View] SET Average = 6.5, [Status] = 'PASSED', Semester ='Fall21' WHERE sID = 'HE163745' AND CourseID = 'MAE101'  SELECT \* FROM [View] |
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|  | 10 Query  • A query that uses ORDER BY |
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|  | • A query that uses the GROUP BY and HAVING clauses |
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|  | • A query that uses a sub-query as a relation |
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|  | o   A query that uses a sub-query in the WHERE clause |
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|  | • A query that uses partial matching in the WHERE clause |
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|  | s  • A query that uses a self-JOIN |
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|  | |  |  | | --- | --- | |  | The Trigger , store procedure, and the index should be added (explain why you make it) | |  |  | |  | TRIGGER | |  | --I created that trigger to warn about adding, correcting, deleting, wrong data  Create TRIGGER View\_Average ON [View]  AFTER INSERT, UPDATE  AS  DECLARE @AVG FLOAT;  DECLARE @courseID VARCHAR(10);  DECLARE @ses varchar(10)  DECLARE @sID char(8);  DECLARE @average FLOAT;  DECLARE @status VARCHAR(20);  SELECT @sID = sID, @courseID = CourseID, @ses = Semester,  @average = Average, @status = [Status]  FROM inserted;  SELECT @AVG = sum(tbl1.Weight/100 \* Score) FROM  (SELECT a.\*, g.Score, g.sID FROM Assessment a  INNER JOIN Grade g on a.AssID = g.AssID WHERE sID = @sID and CourseID = @courseID  ) as tbl1 group by sID, CourseID  IF @AVG <> @average  BEGIN  PRINT 'Conflict input data'  ROLLBACK TRAN  END  ELSE IF (NOT @status = 'PASSED') AND (NOT @status = 'NOT PASSED')  BEGIN  PRINT 'Status must be passed or not passed'  ROLLBACK TRAN  END  ELSE IF (@AVG <= 5 AND @status = 'PASSED') OR (@AVG > 5 AND @status = 'NOT PASSED')  BEGIN  PRINT 'Incorrect Status'  ROLLBACK TRAN  END | |  |  | |  |  | |  |  | |  |  | |  | UPDATE [View] SET Average = 6.5, [Status] = 'PASSED', Semester ='Fall21' WHERE sID = 'HE163745' AND CourseID = 'MAE101'  SELECT \* FROM [View]  --Procedure : Average of component scores  Create PROC select\_sub\_total  AS  BEGIN  SELECT g.sID, a.CourseID, c.CategoryID, AVG(Score) as sub\_total, [Completion Criteria] FROM Grade g  INNER JOIN Assessment a on g.AssID = a.AssID  INNER JOIN [Category Details] cd on cd.CategoryDetailsID = a.CategoryDetailsID  INNER JOIN Category c on c.CategoryID = cd.CategoryID GROUP BY CourseID, sID, c.CategoryID, [Completion Criteria]  END  GO  EXEC select\_sub\_total | |  | * Index :Helps to find information faster   CREATE INDEX Stu\_Name ON Student([Last Name], [First Name])  CREATE INDEX Lec\_Name ON Lecturers([Last Name], [First Name])  SELECT \* FROM Student WHERE [Last Name] = N'Thuong' AND [First Name] = 'Nguyen Canh' | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |
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