Trường Đại Học FPT

Lớp IA1604

Database lưu trữ dữ liệu hệ thống tính điểm

cho sinh viên trường đại học FPT

Bài assignment kết thúc môn học

DBI202 – kì Summer 2022

Sinh viên: Tạ Việt Nam

Mssv: HE160666

Lớp: IA1604

Mục lục:

2.

Student Grading Management Sub-System

Analyze picture

Table 1: Assessments for Course

Example: DBI202

5 assessment(s)

Category	Type	Part	Weight	Completion Criteria	Duration	LO	Question Type	No Question	Knowledge and Skill	Grading Guide	Note
Progress Tests	quiz	2	10.0%	>0	20'		Multiple choices Marked by Computer or a suitable format	20	up to 04 covered chapters	by instructor using computer	Instruction and shedules for Progress tests must be presented in the Course Implementation Plan approved by director of the campus. Progress test must be taken right after the last lectures of required material. Instructor has resposibility to review the test for students after graded.
Assignment	on-going	1	20.0%	>0	at home		Design; Implementation; Presentation		Simple RDBS design and implementation using a DBMS	guided by instructor, prepare at home present in class	40% Design, 20% Implementation, 40% Presentation of the whole Project
Labs	on-going	5	15.0%	>0	in lab session		practical exercises		related to studied modules	Guided by instructor	may be continued at home.
Practical Exam	practical exam	1	25.0%	>0	85'		Preferable to be marked by Scripts		DB programing skills	by exam board and department	Practical Exam database is up load in CMS in advanced.
Final Exam	final exam	1	30.0%	5	60'		Multiple choices Marked by Computer	60	Knowledge and skills in the course, but with much focus on the items in Chapters 2 to 6, >= 70% new questions (for the current semester);	by exam board	

Fields and Attributes:

- Category: Progress test(PT), Assignment, Labs, Practical Exam(PE), Final Exam(FE).
- Type: quiz, on-going, practical exam, final exam.
- Part: 2(PT), 1(Assignment), 5(Labs), 1(PE and FE).
- Weight: 10%(PT), 20%(Assignment), 15%(Labs), 25%(PE), 30%(FE).
- Completion Criteria: >0(PT, Assignment, Labs, PE), 5(FE).
- Duration: 20'(Each PT), 85'(PE), 60'(FE), in lab session(Labs), at home(Assignment).
- LO
- Question Type: Multiple choice, presentation, practical exercise.
- No question: 20(Each PT), 60(FE).
- Knowledge and Skill
- Grading Guide
- Note

3.

Table 2: Overall of subject

NO.	SUBJECT CODE	SUBJECT NAME	SEMESTER	GROUP	STARTDATE	ENDDATE	AVERAGE MARK	STATUS
1	SSL101c	Academic Skills for University Success	Spring2021					Not Passed
2	SSG103	Communication and In-Group Working Skills	Summer2021					Passed
3	NWC203c	Computer Networking	Summer2021					Passed
4	CEA201	Computer Organization and Architecture	Spring2021					Passed
5	MAD101	Discrete mathematics	Summer2021					Passed
6	JPD113	Elementary Japanese 1-A1.1	Fall2021					Passed
7	CSI104	Introduction to Computer Science	Spring2021					Passed
8	DBI202	Introduction to Databases	Fall2021					Not Passed
9	LUK1	Level 1	Fall2019					Passed
10	LUK2	Level 2	Spring2020					Passed
11	LUK3	Level 3	Spring2020					Passed
12	LUK4	Level 4	Summer2020					Pass (with conditions)
13	LUK5	Level 5	Summer2020					Passed
14	LUK6	Level 6	Fall2020					Passed
15	MAE101	Mathematics for Engineering	Spring2021					Passed
16	GDQP	Military training	Fall2019					Passed
17	PRO192	Object-Oriented Programming	Fall2021					Passed
18	PRO192	Object-Oriented Programming	Fall2021					Not Passed
19	OSG202	Operating Systems	Summer2021					Passed
20	PRF192	Programming Fundamentals	Summer2021					Not Passed
21	PRF192	Programming Fundamentals	Spring2021					Attendance Fail
22	ĐTB102	Traditional musical instrument	Summer2020					Passed
23	VOV114	Vovinam 1	Fall2019					Passed
24	VOV124	Vovinam 2	Summer2020					Passed
25	VOV134	Vovinam 3	Summer2020					Passed

Field:

- No
- Subject Name
- Semester
- Group
- StartDate
- EndDate
- Avarage Mark
- Status

Table 3: Subject Mark

GRADE CATEGORY	GRADE ITEM	WEIGHT	VALUE	COMMENT
Quiz 2	Quiz 2	7.0 %	7.8	
	Total	7.0 %	7.8	
Quiz 1	Quiz 1	8.0 %	7.6	
	Total	8.0 %	7.6	
Activity	Activity	10.0 %	8.5	
	Total	10.0 %	8.5	
Group Assignment	Group Assignment	15.0 %	9	
	Total	15.0 %	9	
Group Project	Group Project	30.0 %	8.3	
	Total	30.0 %	8.3	
Final Exam	Final Exam	30.0 %	8.6	
	Total	30.0 %	8.6	
Final Exam Resit	Final Exam Resit	30.0 %		
	Total	30.0 %		
COURSE TOTAL	AVERAGE	8.4		
	STATUS	PASSED		

Field and Attributes:

4.

- Grade Category: Quiz 1, Quiz 2, Activity, Group Assignment, Group Project, Final Exam(FE), Final Exam Resit(FER).
- Grade item: Grade Category, Total.
- Weight: 7%(Quiz 2), 8%(Quiz 1), 10%(Activity), 15%(Group Assignment), 30%(FE and FER)
- Value
- Comment
- Course total: Average, Status.

Condition: Total of each Grade Category > 0, FE > 4, Avarage >= 5

2> The database must consist of at least six tables that have been populated with data. The database is to support queries that would typically be submitted to the system for the topical area that you have chosen. You must do the following:

Self-investigation for the requirement of the system. Listed them all as form of reports, business rules.

· Using UML, Chen's notation to create an Entity Relationship (ER) model for your relational database. All entity types, their attributes and relationships must be clearly shown. You will also be required to show all cardinality and participation constraints. You should use some enhanced ER features in your conceptual model where it makes sense to do so.

· Map the EER model devised in part (1) into a relational data model. It must be normalised up to at least 3rd Normal Form.

· Using appropriate SQL commands create a set of database tables in MS SQL Server 2008+. You should also show all constraints used in the creation of the tables.

· Populate the database with a small amount of data. The data should be meaningful but does not need to be extensive. The following sites may be useful for quickly generating data:

♣ http://www.databasetestdata.com/ ♣ http://www.generatedata.com/

• Your database must contain one view, one trigger, on store procedure and an index (describe why).

• Create 10 sample queries that demonstrate the expressiveness of your database system. Your queries must demonstrate different aspects of the system.

5.

Final Report

You must submit a brief final report which must include the following:

a) A brief description of the database including any assumptions made during the design (THIS IS VERY IMPORTANT TO CLERIFY THE ASSUMTIONS in form of business rules).

b) An ERD (Entity Relationship Diagram) that fully describes the database (giving descriptions on your work would be appreciated).

c) The relational schema derived from the ERD that is at least in 3NF (Any detail of the process would be appreciated).

d) The set of database statements used to create the tables used in your database. You do NOT need to include all the data and insert statements.

e) 10 queries that demonstrate the usefulness of the database. Also state why and when each query would be used. The following must be demonstrated by at least one of your queries:

- A query that uses ORDER BY
- A query that uses INNER JOINS
- A query that uses aggregate functions
- A query that uses the GROUP BY and HAVING clauses
- A query that uses a sub-query as a relation
- A query that uses a sub-query in the WHERE clause
- A query that uses partial matching in the WHERE clause
- A query that uses a self-JOIN f) The trigger, store procedure, and the index should be added (explain why you make it) Demonstration You will be required to briefly demonstrate your system in one of the laboratory sessions prior to submission of the report.

6.

I. Phân tích đề bài yêu cầu

- Theo em thấy, **Student Grading Management Sub-System** cần có 3 bảng

* Bảng 1 : Assessment

5 assessment(s)

Category	Type	Part	Weight	Completion Criteria	Duration	LO	Question Type	No Question	Knowledge and Skill	Grading Guide	Note
Progress Tests	quiz	2	10.0%	>0	20'		Multiple choices Marked by Computer or a suitable format	20	up to 04 covered chapters	by instructor using computer	Instruction and shedules for Progress tests must be presented in the Course Implementation Plan approved by director of the campus. Progress test must be taken right after the last lectures of required material. Instructor has resposibility to review the test for students after graded.
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Final Exam	final exam	1	30.0%		60'	5	Multiple choices Marked by Computer	60	Knowledge and skills in the course, but with much focus on the items in Chapters 2 to 6, >= 70% new questions (for the current semester);	by exam board	

Activate Windows
Go to Settings to activate Windows.

Có 10 attributes : Category, Type, Part, Weight, Completion Criteria,

Duration, LO, Question Type, No Question, Knowledge and Skill

-Category :

+Biểu thị những thành phần điểm

+Data type: varchar(15) ➔ primary key

+Not null

-Type:

+Biểu thị hình thức kiểm tra

+Data type: varchar(15)

+Not null

-Part:

+Biểu thị số lượng bài kiểm tra

+Data type: int()

+Not null

-Weight:

+Phần trăm số điểm của từng category

+Data type: varchar(5)

+Not null

-Completion Criteria:

+Mức điểm tối thiểu cần đạt của từng category

+Data type:

+Not null

-Duration:

+Thời lượng của từng category

+Data type: varchar(20)

+Not null

-LO

+

-Question Type:

8.

+Biểu thị cách thức kiểm tra

+Data type: varchar(100)

+Not null

-NO question:

+

-Knowledge and Skill:

+Những kiến thức và kĩ năng cần nắm vững

+Data type: varchar(100)

+Not null

*Bảng 2 : Subject and Course

NO	SUBJECT CODE	SUBJECT NAME	SEMESTER	GROUP	STARTDATE	ENDDATE	AVERAGE MARK	STATUS
1	SSL101c	Academic Skills for University Success	Spring2021					Not Passed
2	SSG103	Communication and In-Group Working Skills	Summer2021					Passed
3	NWC203c	Computer Networking	Summer2021					Passed
4	CEA201	Computer Organization and Architecture	Spring2021					Passed
5	MAD101	Discrete mathematics	Summer2021					Passed
6	JPD113	Elementary Japanese 1-A1.1	Fall2021					Passed
7	CSI104	Introduction to Computer Science	Spring2021					Passed
8	DBI202	Introduction to Databases	Fall2021					Not Passed
9	LUK1	Level 1	Fall2019					Passed
10	LUK2	Level 2	Spring2020					Passed
11	LUK3	Level 3	Spring2020					Passed
12	LUK4	Level 4	Summer2020					Pass (with conditions)
13	LUK5	Level 5	Summer2020					Passed
14	LUK6	Level 6	Fall2020					Passed
15	MAE101	Mathematics for Engineering	Spring2021					Passed
16	GDQP	Military training	Fall2019					Passed
17	PRO192	Object-Oriented Programming	Fall2021					Passed
18	PRO192	Object-Oriented Programming	Fall2021					Not Passed
19	OSG202	Operating Systems	Summer2021					Passed
20	PRF192	Programming Fundamentals	Summer2021					Not Passed
21	PRF192	Programming Fundamentals	Spring2021					Attendance Fail
22	ĐTB102	Traditional musical instrument	Summer2020					Passed
23	VOV114	Vovinam 1	Fall2019					Passed
24	VOV124	Vovinam 2	Summer2020					Passed
25	VOV134	Vovinam 3	Summer2020					Passed

Có 9 attributes : No , Subject Code , Subject Name , Semester , Group , Startdate , Enddate , AverageMark , Status

9.

-NO:

+ Số lượng môn , khóa học

+ Data type : int

+ Not null

   -Subject Code :

+ Mã môn học

+Data type : varchar(100)

+ Not null

   -Subject Name :

+ Tên đầy đủ của môn học

+ Data type : varchar(100)

+Not null

   -Semester :

+ Hiển thị kì học

+ Data type : int

+ Not null

   -Group :

+ Tên lớp học theo kì học và khóa học

+ Data type : varchar(100)

+ Not null

   -StartDate :

+ Thời gian bắt đầu kì học

+ Data type : Datetime

+ Not null

   -Enddate :

+ Thời gian kết thúc kì học

+ Datatype : Datetime

10.

+Not null

   -Average Mark :

+ Điểm số trung bình

+ Data type : int

+ Not null

   -Status :

+ Mô tả tổng kết quá trình học của sinh viên :

. Passed

.Not Passed

.Passed with condition

*Bảng 3 : Bảng điểm cá nhân của sinh viên

GRADE CATEGORY	GRADE ITEM	WEIGHT	VALUE	COMMENT
Quiz 2	Quiz 2	7.0 %	7.8	
	Total	7.0 %	7.8	
Quiz 1	Quiz 1	8.0 %	7.6	
	Total	8.0 %	7.6	
Activity	Activity	10.0 %	8.5	
	Total	10.0 %	8.5	
Group Assignment	Group Assignment	15.0 %	9	
	Total	15.0 %	9	
Group Project	Group Project	30.0 %	8.3	
	Total	30.0 %	8.3	
Final Exam	Final Exam	30.0 %	8.6	
	Total	30.0 %	8.6	
Final Exam Resit	Final Exam Resit	30.0 %		
	Total	30.0 %		
COURSE TOTAL	AVERAGE	8.4		
	STATUS	PASSED		

Có 5 attributes : Grade category , Grade item , weight , value ,comment

-Grade category :

+Danh sách và tên các đầu điểm :
        - Progress Tests (Quiz)
         - Assignment (Person, Group)
        - Labs
        - PE (Practice Exam)
        - FE (Final Exam)
        - Final Exam Resit

- Grade item :

11.

+ Tên và tổng đầu điểm :

. Item

. Total

-Weight :

+ Tỉ lệ % điểm thành phần , cũng có ở bên FLM

+Data type: varchar(5)

+Not null

-Value :

+ Điểm sinh viên đạt được trên thang điểm quy chuẩn

+ Data type : int

+ Not null

II .Xác định các entities và relationships

Xác định các entities :

Thực Thể 1: Student

      - StudentID

      -FirstName

      -LastName

      - DoB

      - Gender

      - Address

      -Email

Thực Thể 2: Class

12.

- ClassID

- ClassName

- EndDate

- StartDate

Thực thể 3 : Student_Class

-ClassID

-StudentID

Thực Thể 5: Subject

- SubjectID

- SubjectName

Thực Thể 4: Lecture

- LecID

- Email

- Firstname

- Lastname

- Gender

- Dob

-Report

Thực Thể 6: Class_Lecture

- ClassID

- LecID

Thực thể 7:Grade

-GradeID

-SubjectID

-Total

-Status

Thực Thể 8: Grade_ Detail

-ID

- GradeID

- weight

- SubjectID
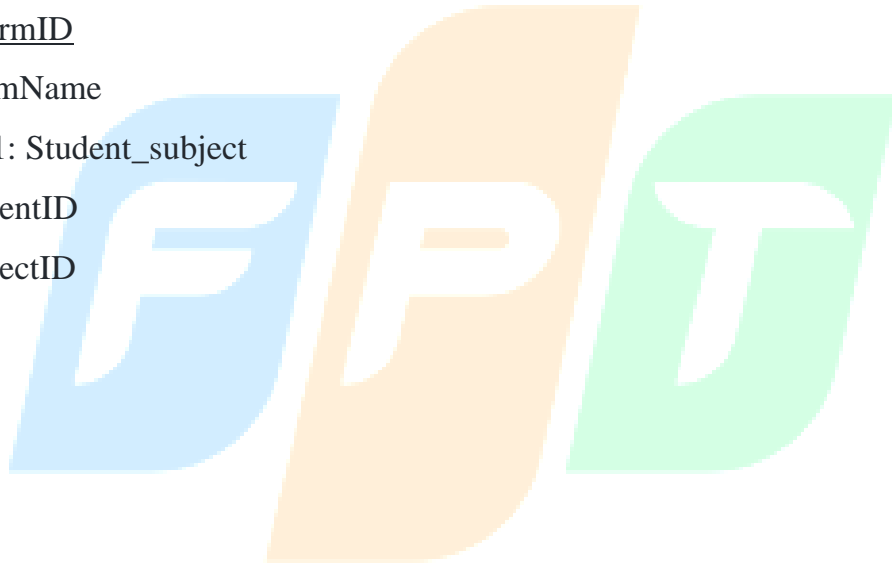
- Item

- value

- comment

Thực Thể 9: Subject_Term
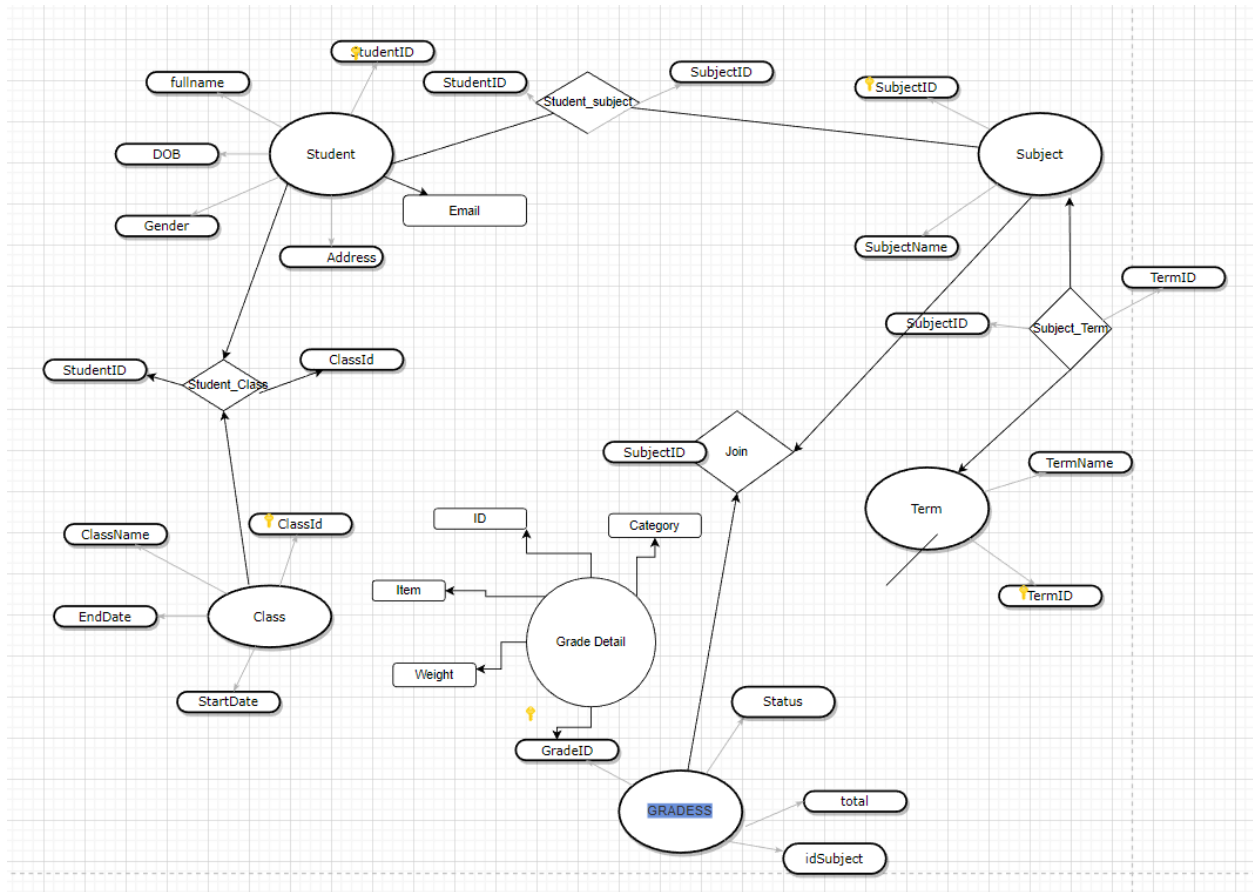
- idSubject

- idTerm

Thực Thể 10: Term

- TermID

- TermName

Thực Thể 11: Student_subject

-StudentID

-SubjectID

14.

ERD Database

III . Phân Chia Các Entities Và Relationships

Entity Students <-> Entity Class

Mô Tả: Một Student có thể đăng kí học nhiều Class Và 1 Class có thể có nhiều Student đăng kí học.
-> Xác Định Quan Hệ Giữa Entity Students Và Entity Class là quan hệ nhiều nhiều (n-n)
➔ Bảng Student_Class được tạo ra

Entity Class <-> Entity Lecturers

Mô Tả: Một Class chỉ có thể được phụ trách bởi đúng 1 Lecturer và 1 Lecturer có thể phụ trách nhiều class.

15.

-> Xác Định Quan Hệ Giữa Entity Class Và Entity Lecturers là quan hệ một nhiều (1-n)

Entity Student <-> Entity Subject

Mô Tả: Một Student có thể đăng kí học nhiều Subject Và 1 Subject có thể có nhiều Student đăng kí học.
-> Xác Định Quan Hệ Giữa Entity Students Và Entity Class là quan hệ nhiều nhiều (n-n)

➔Bảng Student_Subject được tạo ra

Entity Term<-> Entity Subject

Mô Tả: Một kì học có thể có nhiều Subject Và 1 Subject có thể xuất hiện nhiều tại 1 kì học.
-> Xác Định Quan Hệ Giữa Entity Students Và Entity Class là quan hệ nhiều nhiều (n-n)

➔ Bảng Subject_Term được tạo ra

Entity Grade Detail<-> Entity Grade

Mô tả :Một Grades có thể tổng hợp từ nhiều Grade Detail và 1 Grade Detail chỉ có thể đưa vào 1 Grade duy nhất.
-> Xác Định Quan Hệ Giữa Entity Grade Và Entity Grade Detail là quan hệ một nhiều (1-n)

Entity Grade <-> Entity Subject

Mô tả :Một Grades có thể mô tả điểm của nhiều Subject nhưng 1 Subject chỉ có thể đưa vào bảng điểm 1 Grade duy nhất.
-> Xác Định Quan Hệ Giữa Entity Grade Và Entity Subject là quan hệ một nhiều (1-n)

Chuẩn Hóa Thuộc Tính Các Attribute Trên Từng Bảng

1. **Table Students**

Atrtributes	Type
StudentID	Varchar(10)
FirstName	Nvarchar(10)
LastName	Nvarchar(50)

16.

DoB	Date
Address	Nvarchar(150)
Email	Varchar(100)
Gender	bit

2. Table Class

Attributes	Type
ClassID	Int
ClassName	Varchar(50)
Start_Date	Date
End_Date	Date

3. Table Student_Class

Attributes	Type
ClassID	Int
StudentID	Varchar(10)

4. Table Lecture

Attributes	Type
LecID	Int
Email	Varchar(100)
FirstName	Nvarchar(10)
LastName	Nvarchar(50)
Gender	Bit
Dob	Date
Report	Nvarchar(50)

5. Table Class_Lecture

Attributes	Type
LecID	Int
ClassID	int

6. Table Subjects

17.

Attributes	Type
SubjectID	Int
SubjectName	Varchar(50)

7. Table Student_Subject

Attributes	Type
StudentID	Varchar(10)
SubjectID	Int

8. Table Term

Attributes	Type
TermID	Int
TermName	Varchar(50)

9. Table Subject_Term

Attributes	Type
TermID	Int
SubjectID	int

10. Table Grade

Attributes	Type
GradeID	Int
Status	Varchar(255)
SubjectID	Int
Total	Float

11. Table Grade Detail

Attributes	Type
ID	Int
GradeID	Int
Weight	Int
Category	Nchar(255)
Item	Nchar(255)
Comment	Nchar(255)
Value	float

18.

Xác Định Primary Key, Foriegn Key, Attributes Các TABLES

1. **Table Students**

Atrtributes	Type	Requires	Key
StudentID	Varchar(10)	Not null	Primary key
FirstName	Nvarchar(10)	Not null	
LastName	Nvarchar(50)	Not null	
DoB	Date	Not null	
Address	Nvarchar(150)	null	
Email	Varchar(100)	Null	
Gender	bit	Not null	

2. **Table Class**

Attributes	Type	Requires	Key
ClassID	Int	Not null	Primary key
ClassName	Varchar(50)	Not null	
Start_Date	Date	Not null	
End_Date	Date	Not null	

3. **Table Student_Class**

Attributes	Type	Requires	Key
ClassID	Int	Not null	Primary _ ForeignKey
StudentID	Varchar(10)	Not null	Primary _ ForeignKey

4. **Table Lecture**

Attributes	Type	Requires	Key
LecID	Int	Not null	Primary key
Email	Varchar(100)	Not null	
FirstName	Nvarchar(10)	Not null	
LastName	Nvarchar(50)	Not null	
Gender	Bit	Null	
Dob	Date	Null	

19.

Report	Nvarchar(50)	Null	

5. Table Class_Lecture

Attributes	Type	Requires	Key
LecID	Int	Not null	Primary_Foreign key
ClassID	int	Not null	Primary_Foreign key

6. Table Subjects

Attributes	Type	Requires	Key
SubjectID	Int	Not null	Primary key
SubjectName	Varchar(50)	Not null	

7. Table Student_Subject

Attributes	Type	Requires	Key
StudentID	Varchar(10)	Not null	Primary_Foreign key
SubjectID	Int	Not null	Primary_Foreign key

8. Table Term

Attributes	Type	Requires	Key
TermID	Int	Not null	Primary key
TermName	Varchar(50)	Not null	

9. Table Subject_Term

Attributes	Type	Requires	Key
TermID	Int	Not null	Primary_Foreign key
SubjectID	int	Not null	Primary_Foreign key

10. Table Grade

Attributes	Type	Requires	Key

20.

GradeID	Int	Not null	Primary key
Status	Varchar(255)	Null	
SubjectID	Int	Not null	Foreign key
Total	Float	Null	

11. Table Grade Detail

Attributes	Type	Requires	Key
ID	Int	Not null	Primary key
GradeID	Int	Not null	Foreign key
Weight	Int	Null	
Category	Nchar(255)	Null	
Item	Nchar(255)	Null	
Comment	Nchar(255)	Null	
Value	float	Not null	

Database_Diagram và code Sql
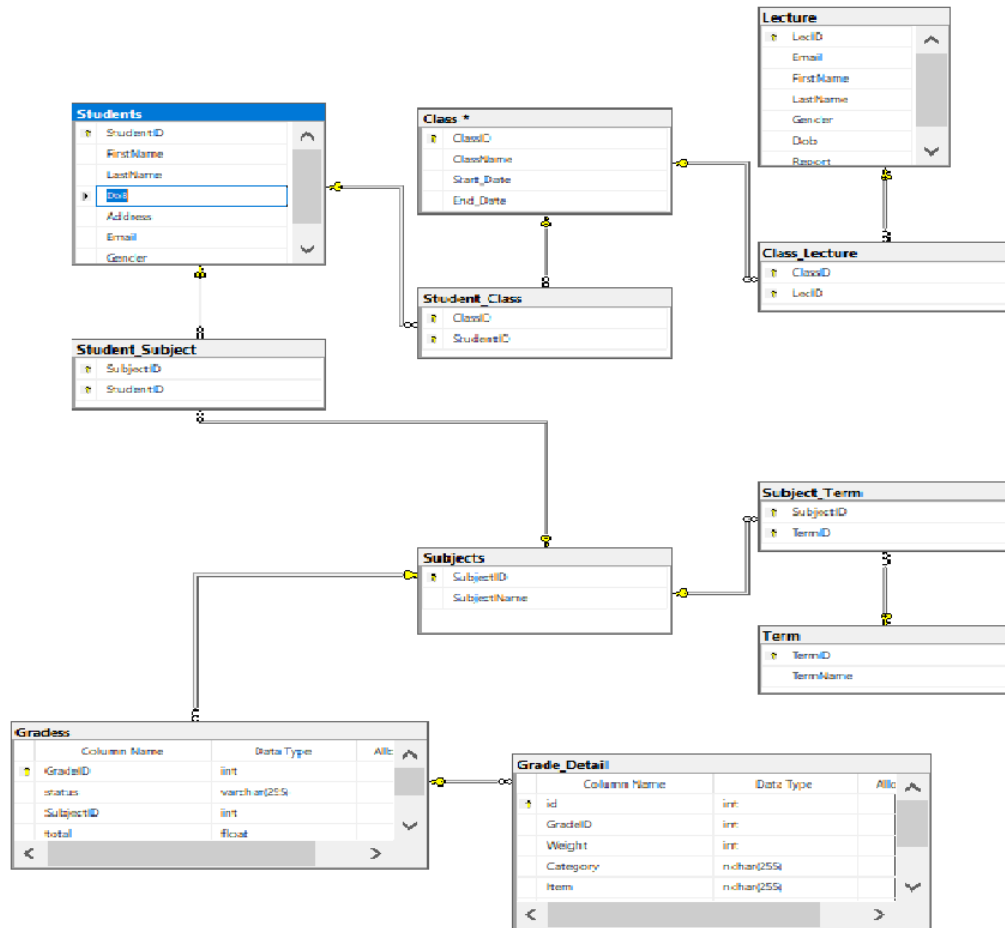
USE [master]

GO

/****** Object: Database [Assignment_ DBI202]   Script Date: 7/15/2022 11:07:05 PM ******/

CREATE DATABASE [Assignment_ DBI202]

 CONTAINMENT = NONE

 ON PRIMARY

22.

```
( NAME = N'Assignment_ DBI202', FILENAME = N'C:\Program Files\Microsoft SQL
Server\MSSQL15.MAYAO\MSSQL\DATA\Assignment_ DBI202.mdf' , SIZE =
8192KB , MAXSIZE = UNLIMITED, FILEGROWTH = 65536KB )
 LOG ON
( NAME = N'Assignment_ DBI202_log', FILENAME = N'C:\Program Files\Microsoft
SQL Server\MSSQL15.MAYAO\MSSQL\DATA\Assignment_ DBI202_log.ldf' , SIZE
= 8192KB , MAXSIZE = 2048GB , FILEGROWTH = 65536KB )
 WITH CATALOG_COLLATION = DATABASE_DEFAULT
GO
ALTER DATABASE [Assignment_ DBI202] SET COMPATIBILITY_LEVEL = 150
GO
IF (1 = FULLTEXTSERVICEPROPERTY('IsFullTextInstalled'))
begin
EXEC [Assignment_ DBI202].[dbo].[sp_fulltext_database] @action = 'enable'
end
GO
ALTER DATABASE [Assignment_ DBI202] SET ANSI_NULL_DEFAULT OFF
GO
ALTER DATABASE [Assignment_ DBI202] SET ANSI_NULLS OFF
GO
ALTER DATABASE [Assignment_ DBI202] SET ANSI_PADDING OFF
GO
ALTER DATABASE [Assignment_ DBI202] SET ANSI_WARNINGS OFF
GO
ALTER DATABASE [Assignment_ DBI202] SET ARITHABORT OFF
GO
ALTER DATABASE [Assignment_ DBI202] SET AUTO_CLOSE OFF
GO
ALTER DATABASE [Assignment_ DBI202] SET AUTO_SHRINK OFF
```

23.

```
GO
ALTER DATABASE [Assignment_ DBI202] SET AUTO_UPDATE_STATISTICS ON
GO
ALTER DATABASE [Assignment_ DBI202] SET CURSOR_CLOSE_ON_COMMIT
OFF
GO
ALTER DATABASE [Assignment_ DBI202] SET CURSOR_DEFAULT  GLOBAL
GO
ALTER DATABASE [Assignment_ DBI202] SET CONCAT_NULL_YIELDS_NULL
OFF
GO
ALTER DATABASE [Assignment_ DBI202] SET NUMERIC_ROUNDABORT OFF
GO
ALTER DATABASE [Assignment_ DBI202] SET QUOTED_IDENTIFIER OFF
GO
ALTER DATABASE [Assignment_ DBI202] SET RECURSIVE_TRIGGERS OFF
GO
ALTER DATABASE [Assignment_ DBI202] SET  DISABLE_BROKER
GO
ALTER DATABASE [Assignment_ DBI202] SET
AUTO_UPDATE_STATISTICS_ASYNC OFF
GO
ALTER DATABASE [Assignment_ DBI202] SET
DATE_CORRELATION_OPTIMIZATION OFF
GO
ALTER DATABASE [Assignment_ DBI202] SET TRUSTWORTHY OFF
GO
ALTER DATABASE [Assignment_ DBI202] SET ALLOW_SNAPSHOT_ISOLATION
OFF
```

24.

```
GO
ALTER DATABASE [Assignment_ DBI202] SET PARAMETERIZATION SIMPLE
GO
ALTER DATABASE [Assignment_ DBI202] SET READ_COMMITTED_SNAPSHOT
OFF
GO
ALTER DATABASE [Assignment_ DBI202] SET HONOR_BROKER_PRIORITY
OFF
GO
ALTER DATABASE [Assignment_ DBI202] SET RECOVERY FULL
GO
ALTER DATABASE [Assignment_ DBI202] SET  MULTI_USER
GO
ALTER DATABASE [Assignment_ DBI202] SET PAGE_VERIFY CHECKSUM
GO
ALTER DATABASE [Assignment_ DBI202] SET DB_CHAINING OFF
GO
ALTER DATABASE [Assignment_ DBI202] SET FILESTREAM(
NON_TRANSACTED_ACCESS = OFF )
GO
ALTER DATABASE [Assignment_ DBI202] SET TARGET_RECOVERY_TIME = 60
SECONDS
GO
ALTER DATABASE [Assignment_ DBI202] SET DELAYED_DURABILITY =
DISABLED
GO
ALTER DATABASE [Assignment_ DBI202] SET
ACCELERATED_DATABASE_RECOVERY = OFF
GO
```

25.

```
EXEC sys.sp_db_vardecimal_storage_format N'Assignment_ DBI202', N'ON'
GO
ALTER DATABASE [Assignment_ DBI202] SET QUERY_STORE = OFF
GO
USE [Assignment_ DBI202]
GO
/****** Object:  Table [dbo].[Class]    Script Date: 7/15/2022 11:07:05 PM ******/
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
CREATE TABLE [dbo].[Class](
        [ClassID] [int] NOT NULL,
        [ClassName] [varchar](50) NOT NULL,
        [Start_Date] [date] NOT NULL,
        [End_Date] [date] NOT NULL,
 CONSTRAINT [PK_Class] PRIMARY KEY CLUSTERED
(
        [ClassID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF,
IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS
= ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]
GO
/****** Object:  Table [dbo].[Class_Lecture]    Script Date: 7/15/2022 11:07:05 PM
******/
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
```

26.

```
GO
CREATE TABLE [dbo].[Class_Lecture](
        [ClassID] [int] NOT NULL,
        [LecID] [int] NOT NULL,
 CONSTRAINT [PK_Class_Lecture] PRIMARY KEY CLUSTERED
(
        [ClassID] ASC,
        [LecID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF,
IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS
= ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]
GO
/****** Object:  Table [dbo].[Grade_Detail]    Script Date: 7/15/2022 11:07:05 PM
******/
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
CREATE TABLE [dbo].[Grade_Detail](
        [id] [int] NOT NULL,
        [GradeID] [int] NOT NULL,
        [Weight] [int] NULL,
        [Category] [nchar](255) NULL,
        [Item] [nchar](255) NULL,
        [Comment] [nchar](255) NULL,
        [Value] [float] NOT NULL,
 CONSTRAINT [PK_Grade_Detail] PRIMARY KEY CLUSTERED
(
```

27.

```
        [id] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF,
IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS
= ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]
GO
/****** Object:  Table [dbo].[Gradess]    Script Date: 7/15/2022 11:07:05 PM ******/
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
CREATE TABLE [dbo].[Gradess](
        [GradeID] [int] NOT NULL,
        [status] [varchar](255) NULL,
        [SubjectID] [int] NOT NULL,
        [total] [float] NULL,
 CONSTRAINT [PK_Gradess] PRIMARY KEY CLUSTERED
(
        [GradeID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF,
IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS
= ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]
GO
/****** Object:  Table [dbo].[Lecture]    Script Date: 7/15/2022 11:07:05 PM ******/
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
```

28.

```sql
CREATE TABLE [dbo].[Lecture](
        [LecID] [int] NOT NULL,
        [Email] [varchar](100) NOT NULL,
        [FirstName] [nvarchar](10) NOT NULL,
        [LastName] [nvarchar](50) NOT NULL,
        [Gender] [bit] NULL,
        [Dob] [date] NULL,
        [Report] [nvarchar](50) NULL,
 CONSTRAINT [PK_Lecture] PRIMARY KEY CLUSTERED
(
        [LecID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF,
IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS
= ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]
GO
/****** Object:  Table [dbo].[Student_Class]    Script Date: 7/15/2022 11:07:05 PM
******/
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
CREATE TABLE [dbo].[Student_Class](
        [ClassID] [int] NOT NULL,
        [StudentID] [varchar](10) NOT NULL,
 CONSTRAINT [PK_Student_Class] PRIMARY KEY CLUSTERED
(
        [ClassID] ASC,
        [StudentID] ASC
```

29.

```
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF,

IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS

= ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]

) ON [PRIMARY]

GO

/****** Object:  Table [dbo].[Student_Subject]    Script Date: 7/15/2022 11:07:05 PM
******/

SET ANSI_NULLS ON

GO

SET QUOTED_IDENTIFIER ON

GO

CREATE TABLE [dbo].[Student_Subject](

        [SubjectID] [int] NOT NULL,

        [StudentID] [varchar](10) NOT NULL,

 CONSTRAINT [PK_Student_Subject] PRIMARY KEY CLUSTERED

(

        [SubjectID] ASC,

        [StudentID] ASC

)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF,

IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS

= ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]

) ON [PRIMARY]

GO

/****** Object:  Table [dbo].[Students]    Script Date: 7/15/2022 11:07:05 PM ******/

SET ANSI_NULLS ON

GO

SET QUOTED_IDENTIFIER ON

GO

CREATE TABLE [dbo].[Students](
```

30.

```
        [StudentID] [varchar](10) NOT NULL,

        [FirstName] [nvarchar](10) NOT NULL,

        [LastName] [nvarchar](50) NOT NULL,

        [DoB] [date] NOT NULL,

        [Address] [nvarchar](150) NULL,

        [Email] [varchar](100) NULL,

        [Gender] [bit] NULL,

 CONSTRAINT [PK_Students] PRIMARY KEY CLUSTERED

(

        [StudentID] ASC

)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF,

IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS

= ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]

) ON [PRIMARY]

GO

/****** Object:  Table [dbo].[Subject_Term]    Script Date: 7/15/2022 11:07:05 PM

******/

SET ANSI_NULLS ON

GO

SET QUOTED_IDENTIFIER ON

GO

CREATE TABLE [dbo].[Subject_Term](

        [SubjectID] [int] NOT NULL,

        [TermID] [int] NOT NULL,

 CONSTRAINT [PK_Subject_Term] PRIMARY KEY CLUSTERED

(

        [SubjectID] ASC,

        [TermID] ASC
```

```
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF,
IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS
= ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]
GO
/****** Object:  Table [dbo].[Subjects]    Script Date: 7/15/2022 11:07:05 PM ******/
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
CREATE TABLE [dbo].[Subjects](
        [SubjectID] [int] NOT NULL,
        [SubjectName] [varchar](50) NOT NULL,
 CONSTRAINT [PK_Subjects] PRIMARY KEY CLUSTERED
(
        [SubjectID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF,
IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS
= ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]
) ON [PRIMARY]
GO
/****** Object:  Table [dbo].[Term]    Script Date: 7/15/2022 11:07:05 PM ******/
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
CREATE TABLE [dbo].[Term](
        [TermID] [int] NOT NULL,
        [TermName] [varchar](50) NOT NULL,
```

32.

CONSTRAINT [PK_Term] PRIMARY KEY CLUSTERED

(

        [TermID] ASC

)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF,

IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS

= ON, OPTIMIZE_FOR_SEQUENTIAL_KEY = OFF) ON [PRIMARY]

) ON [PRIMARY]

GO

INSERT [dbo].[Class] ([ClassID], [ClassName], [Start_Date], [End_Date]) VALUES (1,

N'IA1604', CAST(N'2022-05-09' AS Date), CAST(N'2022-08-09' AS Date))

INSERT [dbo].[Class] ([ClassID], [ClassName], [Start_Date], [End_Date]) VALUES (2,

N'AI1601', CAST(N'2022-05-09' AS Date), CAST(N'2022-08-09' AS Date))

INSERT [dbo].[Class] ([ClassID], [ClassName], [Start_Date], [End_Date]) VALUES (3,

N'SE1602', CAST(N'2022-09-09' AS Date), CAST(N'2022-11-09' AS Date))

INSERT [dbo].[Class] ([ClassID], [ClassName], [Start_Date], [End_Date]) VALUES (4,

N'IA1605', CAST(N'2022-05-09' AS Date), CAST(N'2022-08-09' AS Date))

INSERT [dbo].[Class] ([ClassID], [ClassName], [Start_Date], [End_Date]) VALUES (5,

N'IA1606', CAST(N'2022-05-09' AS Date), CAST(N'2022-08-09' AS Date))

INSERT [dbo].[Class] ([ClassID], [ClassName], [Start_Date], [End_Date]) VALUES (6,

N'IA1607', CAST(N'2022-05-09' AS Date), CAST(N'2022-08-09' AS Date))

INSERT [dbo].[Class] ([ClassID], [ClassName], [Start_Date], [End_Date]) VALUES (7,

N'AI1602', CAST(N'2022-09-09' AS Date), CAST(N'2022-11-09' AS Date))

INSERT [dbo].[Class] ([ClassID], [ClassName], [Start_Date], [End_Date]) VALUES (9,

N'AI1603', CAST(N'2022-09-09' AS Date), CAST(N'2022-11-09' AS Date))

INSERT [dbo].[Class] ([ClassID], [ClassName], [Start_Date], [End_Date]) VALUES

(10, N'AI1604', CAST(N'2022-09-09' AS Date), CAST(N'2022-11-09' AS Date))

INSERT [dbo].[Class] ([ClassID], [ClassName], [Start_Date], [End_Date]) VALUES

(11, N'SE1603', CAST(N'2022-09-09' AS Date), CAST(N'2022-11-09' AS Date))

INSERT [dbo].[Class] ([ClassID], [ClassName], [Start_Date], [End_Date]) VALUES (12, N'SE1604', CAST(N'2022-04-06' AS Date), CAST(N'2022-07-01' AS Date))
GO
INSERT [dbo].[Class_Lecture] ([ClassID], [LecID]) VALUES (1, 1)
INSERT [dbo].[Class_Lecture] ([ClassID], [LecID]) VALUES (1, 2)
INSERT [dbo].[Class_Lecture] ([ClassID], [LecID]) VALUES (1, 3)
INSERT [dbo].[Class_Lecture] ([ClassID], [LecID]) VALUES (2, 1)
INSERT [dbo].[Class_Lecture] ([ClassID], [LecID]) VALUES (2, 2)
INSERT [dbo].[Class_Lecture] ([ClassID], [LecID]) VALUES (2, 3)
INSERT [dbo].[Class_Lecture] ([ClassID], [LecID]) VALUES (2, 4)
INSERT [dbo].[Class_Lecture] ([ClassID], [LecID]) VALUES (3, 1)
INSERT [dbo].[Class_Lecture] ([ClassID], [LecID]) VALUES (3, 2)
INSERT [dbo].[Class_Lecture] ([ClassID], [LecID]) VALUES (3, 5)
INSERT [dbo].[Class_Lecture] ([ClassID], [LecID]) VALUES (4, 1)
INSERT [dbo].[Class_Lecture] ([ClassID], [LecID]) VALUES (4, 2)
INSERT [dbo].[Class_Lecture] ([ClassID], [LecID]) VALUES (4, 5)
INSERT [dbo].[Class_Lecture] ([ClassID], [LecID]) VALUES (4, 9)
INSERT [dbo].[Class_Lecture] ([ClassID], [LecID]) VALUES (5, 1)
INSERT [dbo].[Class_Lecture] ([ClassID], [LecID]) VALUES (5, 2)
INSERT [dbo].[Class_Lecture] ([ClassID], [LecID]) VALUES (5, 8)
INSERT [dbo].[Class_Lecture] ([ClassID], [LecID]) VALUES (6, 1)
INSERT [dbo].[Class_Lecture] ([ClassID], [LecID]) VALUES (6, 2)
INSERT [dbo].[Class_Lecture] ([ClassID], [LecID]) VALUES (6, 3)
INSERT [dbo].[Class_Lecture] ([ClassID], [LecID]) VALUES (6, 7)
INSERT [dbo].[Class_Lecture] ([ClassID], [LecID]) VALUES (7, 1)
INSERT [dbo].[Class_Lecture] ([ClassID], [LecID]) VALUES (7, 5)
INSERT [dbo].[Class_Lecture] ([ClassID], [LecID]) VALUES (7, 7)
INSERT [dbo].[Class_Lecture] ([ClassID], [LecID]) VALUES (7, 9)
INSERT [dbo].[Class_Lecture] ([ClassID], [LecID]) VALUES (10, 9)

34.

INSERT [dbo].[Class_Lecture] ([ClassID], [LecID]) VALUES (11, 7)

INSERT [dbo].[Class_Lecture] ([ClassID], [LecID]) VALUES (11, 8)

INSERT [dbo].[Class_Lecture] ([ClassID], [LecID]) VALUES (12, 3)

INSERT [dbo].[Class_Lecture] ([ClassID], [LecID]) VALUES (12, 8)

GO

INSERT [dbo].[Grade_Detail] ([id], [GradeID], [Weight], [Category], [Item],

[Comment], [Value]) VALUES (1, 1, 10, N'Avtive

learning

', N'Active

Learning

', NULL, 7)

INSERT [dbo].[Grade_Detail] ([id], [GradeID], [Weight], [Category], [Item],

[Comment], [Value]) VALUES (2, 1, 5, N'Exercise

', N'Excercise 1

', NULL, 8)

INSERT [dbo].[Grade_Detail] ([id], [GradeID], [Weight], [Category], [Item],

[Comment], [Value]) VALUES (3, 1, 5,

N'Excercise

', N'Excercise 2

', NULL, 8.5)

INSERT [dbo].[Grade_Detail] ([id], [GradeID], [Weight], [Category], [Item],

[Comment], [Value]) VALUES (4, 1, 10, N'Presentation

', N'Presentation

', NULL, 8)

INSERT [dbo].[Grade_Detail] ([id], [GradeID], [Weight], [Category], [Item],

[Comment], [Value]) VALUES (5, 1, 30,

N'Assignment

', N'Assignment

', NULL, 8.5)

INSERT [dbo].[Grade_Detail] ([id], [GradeID], [Weight], [Category], [Item], [Comment], [Value]) VALUES (6, 1, 40, N'Final Exam

', N'Final Exam

', NULL, 8)

INSERT [dbo].[Grade_Detail] ([id], [GradeID], [Weight], [Category], [Item], [Comment], [Value]) VALUES (7, 2, 10, N'Active

learning

', N'Active learning

', NULL, 7)

INSERT [dbo].[Grade_Detail] ([id], [GradeID], [Weight], [Category], [Item], [Comment], [Value]) VALUES (8, 2, 5, NULL, NULL, NULL, 0)

INSERT [dbo].[Grade_Detail] ([id], [GradeID], [Weight], [Category], [Item], [Comment], [Value]) VALUES (9, 2, 10,

N'Presentation

', N'Presentation

', NULL, 5)

INSERT [dbo].[Grade_Detail] ([id], [GradeID], [Weight], [Category], [Item], [Comment], [Value]) VALUES (10, 2, 40, N'Final Exam

', N'Final Exam

', NULL, 3.9)

GO

INSERT [dbo].[Gradess] ([GradeID], [status], [SubjectID], [total]) VALUES (1, N'Passed', 1, 8.1)

INSERT [dbo].[Gradess] ([GradeID], [status], [SubjectID], [total]) VALUES (2, N'Passed', 1, 7)

INSERT [dbo].[Gradess] ([GradeID], [status], [SubjectID], [total]) VALUES (3, N'Passed', 1, 9)

INSERT [dbo].[Gradess] ([GradeID], [status], [SubjectID], [total]) VALUES (4, N'Not passed ', 2, 4.5)

36.

INSERT [dbo].[Gradess] ([GradeID], [status], [SubjectID], [total]) VALUES (5, N'Passed', 1, 5.6)

INSERT [dbo].[Gradess] ([GradeID], [status], [SubjectID], [total]) VALUES (6, N'Not passed', 2, 4.9)

INSERT [dbo].[Gradess] ([GradeID], [status], [SubjectID], [total]) VALUES (7, N'Not passed', 3, 5.9)

INSERT [dbo].[Gradess] ([GradeID], [status], [SubjectID], [total]) VALUES (8, N'Not passed', 3, 3.5)

INSERT [dbo].[Gradess] ([GradeID], [status], [SubjectID], [total]) VALUES (9, N'Passed ', 3, 10)

INSERT [dbo].[Gradess] ([GradeID], [status], [SubjectID], [total]) VALUES (10, N'Passed', 3, 7.6)

INSERT [dbo].[Gradess] ([GradeID], [status], [SubjectID], [total]) VALUES (11, N'Passed', 4, 7)

INSERT [dbo].[Gradess] ([GradeID], [status], [SubjectID], [total]) VALUES (12, N'Passed', 4, 6.7)

INSERT [dbo].[Gradess] ([GradeID], [status], [SubjectID], [total]) VALUES (13, NULL, 4, 0)

INSERT [dbo].[Gradess] ([GradeID], [status], [SubjectID], [total]) VALUES (14, NULL, 4, 0)

INSERT [dbo].[Gradess] ([GradeID], [status], [SubjectID], [total]) VALUES (15, N'Passed', 4, 8.2)

INSERT [dbo].[Gradess] ([GradeID], [status], [SubjectID], [total]) VALUES (16, N'Passed', 5, 7.2)

INSERT [dbo].[Gradess] ([GradeID], [status], [SubjectID], [total]) VALUES (17, N'Not Passed', 5, 2.3)

INSERT [dbo].[Gradess] ([GradeID], [status], [SubjectID], [total]) VALUES (18, NULL, 5, 0)

INSERT [dbo].[Gradess] ([GradeID], [status], [SubjectID], [total]) VALUES (19, NULL, 5, 1.1)

INSERT [dbo].[Gradess] ([GradeID], [status], [SubjectID], [total]) VALUES (20, NULL, 5, 0.2)

INSERT [dbo].[Gradess] ([GradeID], [status], [SubjectID], [total]) VALUES (21, NULL, 5, 0.3)

INSERT [dbo].[Gradess] ([GradeID], [status], [SubjectID], [total]) VALUES (22, NULL, 6, 0)

INSERT [dbo].[Gradess] ([GradeID], [status], [SubjectID], [total]) VALUES (23, N'Passed', 6, 9.8)

INSERT [dbo].[Gradess] ([GradeID], [status], [SubjectID], [total]) VALUES (24, N'Passed', 6, 9.4)

INSERT [dbo].[Gradess] ([GradeID], [status], [SubjectID], [total]) VALUES (25, N'Passed', 6, 9)

INSERT [dbo].[Gradess] ([GradeID], [status], [SubjectID], [total]) VALUES (26, N'Passed', 6, 7.7)

INSERT [dbo].[Gradess] ([GradeID], [status], [SubjectID], [total]) VALUES (27, N'Passed', 6, 6.6)

INSERT [dbo].[Gradess] ([GradeID], [status], [SubjectID], [total]) VALUES (28, N'Passed', 7, 7)

INSERT [dbo].[Gradess] ([GradeID], [status], [SubjectID], [total]) VALUES (29, N'Not passed', 7, 4.4)

INSERT [dbo].[Gradess] ([GradeID], [status], [SubjectID], [total]) VALUES (30, N'Not passed ', 7, 4)

GO

INSERT [dbo].[Lecture] ([LecID], [Email], [FirstName], [LastName], [Gender], [Dob], [Report]) VALUES (1, N'Sonnt5@g.c', N'Sơn', N'NT', 1, CAST(N'1987-05-06' AS Date), NULL)

INSERT [dbo].[Lecture] ([LecID], [Email], [FirstName], [LastName], [Gender], [Dob], [Report]) VALUES (2, N'Antt@g.c', N'Ân', N'TT', 1, CAST(N'1988-02-04' AS Date), N'1')

INSERT [dbo].[Lecture] ([LecID], [Email], [FirstName], [LastName], [Gender], [Dob], [Report]) VALUES (3, N'Nangnt@g.c', N'Năng', N'NT', 0, CAST(N'1990-03-06' AS Date), N'1')

INSERT [dbo].[Lecture] ([LecID], [Email], [FirstName], [LastName], [Gender], [Dob], [Report]) VALUES (4, N'Vandt@g.c', N'Vân', N'DT', 0, CAST(N'1989-08-02' AS Date), NULL)

INSERT [dbo].[Lecture] ([LecID], [Email], [FirstName], [LastName], [Gender], [Dob], [Report]) VALUES (5, N'Duchm@g.c', N'Đức', N'HM', 1, CAST(N'1985-05-01' AS Date), NULL)

INSERT [dbo].[Lecture] ([LecID], [Email], [FirstName], [LastName], [Gender], [Dob], [Report]) VALUES (6, N'Khuongpd@g.c', N'Khương', N'PD', 1, CAST(N'1989-01-11' AS Date), NULL)

INSERT [dbo].[Lecture] ([LecID], [Email], [FirstName], [LastName], [Gender], [Dob], [Report]) VALUES (7, N'Tientd@g.c', N'Tiến', N'TD', 1, CAST(N'1980-05-06' AS Date), N'1')

INSERT [dbo].[Lecture] ([LecID], [Email], [FirstName], [LastName], [Gender], [Dob], [Report]) VALUES (8, N'Mailt@g.c', N'Mai', N'LT', 0, CAST(N'1988-04-16' AS Date), NULL)

INSERT [dbo].[Lecture] ([LecID], [Email], [FirstName], [LastName], [Gender], [Dob], [Report]) VALUES (9, N'Hoakt@g.c', N'Hoa', N'KT', 0, CAST(N'1995-08-18' AS Date), NULL)

GO

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (1, N'HE111')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (1, N'HE112')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (1, N'HE113')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (1, N'HE116')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (1, N'HE117')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (1, N'HE118')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (2, N'HE111')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (2, N'HE112')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (2, N'HE114')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (2, N'HE116')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (3, N'HE111')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (3, N'HE113')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (3, N'HE115')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (4, N'HE111')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (4, N'HE112')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (4, N'HE114')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (4, N'HE115')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (4, N'HE119')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (4, N'HE120')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (5, N'HE111')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (5, N'HE113')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (5, N'HE116')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (5, N'HE117')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (5, N'HE118')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (5, N'HE120')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (6, N'HE111')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (6, N'HE112')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (6, N'HE113')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (6, N'HE114')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (6, N'HE115')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (6, N'HE117')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (6, N'HE120')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (7, N'HE111')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (7, N'HE112')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (7, N'HE113')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (7, N'HE117')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (7, N'HE118')

INSERT [dbo].[Student_Class] ([ClassID], [StudentID]) VALUES (7, N'HE120')

GO

INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (1, N'HE111')

INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (1, N'HE112')

INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (1, N'HE113')

INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (2, N'HE111')

INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (2, N'HE113')

INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (2, N'HE114')

INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (2, N'HE115')

INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (3, N'HE111')

INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (3, N'HE112')

INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (3, N'HE113')

INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (3, N'HE114')

INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (3, N'HE116')

INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (4, N'HE111')

INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (4, N'HE116')

INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (5, N'HE111')

INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (5, N'HE112')

INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (5, N'HE115')

INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (5, N'HE116')

INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (6, N'HE111')

INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (6, N'HE112')

INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (6, N'HE114')

INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (6, N'HE118')

INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (6, N'HE120')

41.

```
INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (7, N'HE111')
INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (7, N'HE112')
INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (7, N'HE113')
INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (7, N'HE118')
INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (7, N'HE119')
INSERT [dbo].[Students_Subject] ([SubjectID], [StudentID]) VALUES (7, N'HE120')
INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (8, N'HE111')
INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (8, N'HE114')
INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (8, N'HE115')
INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (8, N'HE117')
INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (8, N'HE119')
INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (8, N'HE120')
INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (9, N'HE111')
INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (9, N'HE112')
INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (9, N'HE116')
INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (9, N'HE120')
INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (10, N'HE111')
INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (10, N'HE112')
INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (10, N'HE113')
INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (10, N'HE114')
INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (10, N'HE116')
INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (10, N'HE118')
INSERT [dbo].[Student_Subject] ([SubjectID], [StudentID]) VALUES (10, N'HE120')
GO
INSERT [dbo].[Students] ([StudentID], [FirstName], [LastName], [DoB], [Address],
[Email], [Gender]) VALUES (N'HE111', N'NV', N'A', CAST(N'2002-05-02' AS Date),
NULL, N'He111@g.c', 1)
```

42.

INSERT [dbo].[Students] ([StudentID], [FirstName], [LastName], [DoB], [Address], [Email], [Gender]) VALUES (N'HE112', N'NB', N'B', CAST(N'2001-02-03' AS Date), N'Việt Nam', N'He112@g.c', 0)

INSERT [dbo].[Students] ([StudentID], [FirstName], [LastName], [DoB], [Address], [Email], [Gender]) VALUES (N'HE113', N'HB', N'C', CAST(N'2002-08-06' AS Date), N'Việt Nam', N'He113@g.c', 0)

INSERT [dbo].[Students] ([StudentID], [FirstName], [LastName], [DoB], [Address], [Email], [Gender]) VALUES (N'HE114', N'KH', N'D', CAST(N'2000-04-05' AS Date), NULL, N'He114@g.c', 1)

INSERT [dbo].[Students] ([StudentID], [FirstName], [LastName], [DoB], [Address], [Email], [Gender]) VALUES (N'HE115', N'BV', N'E', CAST(N'2002-08-06' AS Date), N'Việt Nam', N'He115@g.c', 1)

INSERT [dbo].[Students] ([StudentID], [FirstName], [LastName], [DoB], [Address], [Email], [Gender]) VALUES (N'HE116', N'NT', N'P', CAST(N'2001-07-03' AS Date), N'Mỹ', N'He116@g.c', 0)

INSERT [dbo].[Students] ([StudentID], [FirstName], [LastName], [DoB], [Address], [Email], [Gender]) VALUES (N'HE117', N'NG', N'A', CAST(N'2002-05-03' AS Date), NULL, N'He117@g.c', 1)

INSERT [dbo].[Students] ([StudentID], [FirstName], [LastName], [DoB], [Address], [Email], [Gender]) VALUES (N'HE118', N'NV', N'B', CAST(N'2001-07-15' AS Date), N'Việt Nam', N'He118@g.c', 1)

INSERT [dbo].[Students] ([StudentID], [FirstName], [LastName], [DoB], [Address], [Email], [Gender]) VALUES (N'HE119', N'TV', N'N', CAST(N'2002-11-05' AS Date), N'Việt Nam', N'He119@g.c', 1)

INSERT [dbo].[Students] ([StudentID], [FirstName], [LastName], [DoB], [Address], [Email], [Gender]) VALUES (N'HE120', N'NM', N'H', CAST(N'2001-01-11' AS Date), NULL, N'He120@g.c', 0)

GO

INSERT [dbo].[Subject_Term] ([SubjectID], [TermID]) VALUES (1, 1)

43.

INSERT [dbo].[Subject_Term] ([SubjectID], [TermID]) VALUES (1, 2)

INSERT [dbo].[Subject_Term] ([SubjectID], [TermID]) VALUES (1, 4)

INSERT [dbo].[Subject_Term] ([SubjectID], [TermID]) VALUES (1, 5)

INSERT [dbo].[Subject_Term] ([SubjectID], [TermID]) VALUES (2, 1)

INSERT [dbo].[Subject_Term] ([SubjectID], [TermID]) VALUES (3, 1)

INSERT [dbo].[Subject_Term] ([SubjectID], [TermID]) VALUES (4, 2)

INSERT [dbo].[Subject_Term] ([SubjectID], [TermID]) VALUES (4, 3)

INSERT [dbo].[Subject_Term] ([SubjectID], [TermID]) VALUES (5, 1)

INSERT [dbo].[Subject_Term] ([SubjectID], [TermID]) VALUES (6, 1)

INSERT [dbo].[Subject_Term] ([SubjectID], [TermID]) VALUES (6, 2)

INSERT [dbo].[Subject_Term] ([SubjectID], [TermID]) VALUES (7, 1)

INSERT [dbo].[Subject_Term] ([SubjectID], [TermID]) VALUES (7, 2)

INSERT [dbo].[Subject_Term] ([SubjectID], [TermID]) VALUES (7, 3)

INSERT [dbo].[Subject_Term] ([SubjectID], [TermID]) VALUES (8, 1)

INSERT [dbo].[Subject_Term] ([SubjectID], [TermID]) VALUES (8, 3)

INSERT [dbo].[Subject_Term] ([SubjectID], [TermID]) VALUES (9, 6)

INSERT [dbo].[Subject_Term] ([SubjectID], [TermID]) VALUES (10, 6)

GO

INSERT [dbo].[Subjects] ([SubjectID], [SubjectName]) VALUES (1, N'DBI202')

INSERT [dbo].[Subjects] ([SubjectID], [SubjectName]) VALUES (2, N'LAB211')

INSERT [dbo].[Subjects] ([SubjectID], [SubjectName]) VALUES (3, N'CSD201')

INSERT [dbo].[Subjects] ([SubjectID], [SubjectName]) VALUES (4, N'JPD113')

INSERT [dbo].[Subjects] ([SubjectID], [SubjectName]) VALUES (5, N'IAO202')

INSERT [dbo].[Subjects] ([SubjectID], [SubjectName]) VALUES (6, N'PRO192')

INSERT [dbo].[Subjects] ([SubjectID], [SubjectName]) VALUES (7, N'OSG202')

INSERT [dbo].[Subjects] ([SubjectID], [SubjectName]) VALUES (8, N'SSG104')

INSERT [dbo].[Subjects] ([SubjectID], [SubjectName]) VALUES (9, N'MAD101')

INSERT [dbo].[Subjects] ([SubjectID], [SubjectName]) VALUES (10, N'NWC204')

GO

44.

```sql
INSERT [dbo].[Term] ([TermID], [TermName]) VALUES (1, N'Fall2021')

INSERT [dbo].[Term] ([TermID], [TermName]) VALUES (2, N'Spr2022')

INSERT [dbo].[Term] ([TermID], [TermName]) VALUES (3, N'Su2022')

INSERT [dbo].[Term] ([TermID], [TermName]) VALUES (4, N'Su2021')

INSERT [dbo].[Term] ([TermID], [TermName]) VALUES (5, N'Spr2021')

INSERT [dbo].[Term] ([TermID], [TermName]) VALUES (6, N'Fall2022')

GO

ALTER TABLE [dbo].[Class_Lecture]  WITH CHECK ADD  CONSTRAINT

[FK_Class_Lecture_Class] FOREIGN KEY([ClassID])

REFERENCES [dbo].[Class] ([ClassID])

GO

ALTER TABLE [dbo].[Class_Lecture] CHECK CONSTRAINT

[FK_Class_Lecture_Class]

GO

ALTER TABLE [dbo].[Class_Lecture]  WITH CHECK ADD  CONSTRAINT

[FK_Class_Lecture_Lecture] FOREIGN KEY([LecID])

REFERENCES [dbo].[Lecture] ([LecID])

GO

ALTER TABLE [dbo].[Class_Lecture] CHECK CONSTRAINT

[FK_Class_Lecture_Lecture]

GO

ALTER TABLE [dbo].[Grade_Detail]  WITH CHECK ADD  CONSTRAINT

[FK_Grade_Detail_Gradess1] FOREIGN KEY([GradeID])

REFERENCES [dbo].[Gradess] ([GradeID])

GO

ALTER TABLE [dbo].[Grade_Detail] CHECK CONSTRAINT

[FK_Grade_Detail_Gradess1]

GO
```

45.

ALTER TABLE [dbo].[Gradess] WITH CHECK ADD CONSTRAINT

[FK_Gradess_Subjects] FOREIGN KEY([SubjectID])

REFERENCES [dbo].[Subjects] ([SubjectID])

GO

ALTER TABLE [dbo].[Gradess] CHECK CONSTRAINT [FK_Gradess_Subjects]

GO

ALTER TABLE [dbo].[Student_Class] WITH CHECK ADD CONSTRAINT

[FK_Student_Class_Class] FOREIGN KEY([ClassID])

REFERENCES [dbo].[Class] ([ClassID])

GO

ALTER TABLE [dbo].[Student_Class] CHECK CONSTRAINT

[FK_Student_Class_Class]

GO

ALTER TABLE [dbo].[Student_Class] WITH CHECK ADD CONSTRAINT

[FK_Student_Class_Students] FOREIGN KEY([StudentID])

REFERENCES [dbo].[Students] ([StudentID])

GO

ALTER TABLE [dbo].[Student_Class] CHECK CONSTRAINT

[FK_Student_Class_Students]

GO

ALTER TABLE [dbo].[Student_Subject] WITH CHECK ADD CONSTRAINT

[FK_Student_Subject_Students] FOREIGN KEY([StudentID])

REFERENCES [dbo].[Students] ([StudentID])

GO

ALTER TABLE [dbo].[Student_Subject] CHECK CONSTRAINT

[FK_Student_Subject_Students]

GO

ALTER TABLE [dbo].[Student_Subject] WITH CHECK ADD CONSTRAINT

[FK_Student_Subject_Subjects] FOREIGN KEY([SubjectID])

46.

REFERENCES [dbo].[Subjects] ([SubjectID])

GO

ALTER TABLE [dbo].[Student_Subject] CHECK CONSTRAINT

[FK_Student_Subject_Subjects]

GO

ALTER TABLE [dbo].[Subject_Term] WITH CHECK ADD CONSTRAINT

[FK_Subject_Term_Subjects] FOREIGN KEY([SubjectID])

REFERENCES [dbo].[Subjects] ([SubjectID])

GO

ALTER TABLE [dbo].[Subject_Term] CHECK CONSTRAINT

[FK_Subject_Term_Subjects]

GO

ALTER TABLE [dbo].[Subject_Term] WITH CHECK ADD CONSTRAINT

[FK_Subject_Term_Term] FOREIGN KEY([TermID])

REFERENCES [dbo].[Term] ([TermID])

GO

ALTER TABLE [dbo].[Subject_Term] CHECK CONSTRAINT

[FK_Subject_Term_Term]

GO

USE [master]

GO

ALTER DATABASE [Assignment_ DBI202] SET READ_WRITE

GO

IV .Image + Results + Qery

1. Table Students

	StudentID	FirstName	LastName	DoB	Address	Email	Gender
1	HE111	NV	A	2002-05-02	NULL	He111@g.c	1
2	HE112	NB	B	2001-02-03	Việt Nam	He112@g.c	0
3	HE113	HB	C	2002-08-06	Việt Nam	He113@g.c	0
4	HE114	KH	D	2000-04-05	NULL	He114@g.c	1
5	HE115	BV	E	2002-08-06	Việt Nam	He115@g.c	1
6	HE116	NT	P	2001-07-03	Mỹ	He116@g.c	0
7	HE117	NG	A	2002-05-03	NULL	He117@g.c	1
8	HE118	NV	B	2001-07-15	Việt Nam	He118@g.c	1
9	HE119	TV	N	2002-11-05	Việt Nam	He119@g.c	1
10	HE120	NM	H	2001-01-11	NULL	He120@g.c	0

2. Table Lecture

	LecID	Email	FirstName	LastName	Gender	Dob	Report
1	1	Sonnt5@g.c	Sơn	NT	1	1987-05-06	NULL
2	2	Antt@g.c	Ân	TT	1	1988-02-04	1
3	3	Nangnt@g.c	Năng	NT	0	1990-03-06	1
4	4	Vandt@g.c	Vân	DT	0	1989-08-02	NULL
5	5	Duchm@g.c	Đức	HM	1	1985-05-01	NULL
6	6	Khuongpd@g.c	Khương	PD	1	1989-01-11	NULL
7	7	Tientd@g.c	Tiến	TD	1	1980-05-06	1
8	8	Mailt@g.c	Mai	LT	0	1988-04-16	NULL
9	9	Hoakt@g.c	Hoa	KT	0	1995-08-18	NULL

3. Table Classs

	ClassID	ClassName	Start_Date	End_Date
1	1	IA1604	2022-05-09	2022-08-09
2	2	AI1601	2022-05-09	2022-08-09
3	3	SE1602	2022-09-09	2022-11-09
4	4	IA1605	2022-05-09	2022-08-09
5	5	IA1606	2022-05-09	2022-08-09
6	6	IA1607	2022-05-09	2022-08-09
7	7	AI1602	2022-09-09	2022-11-09
8	9	AI1603	2022-09-09	2022-11-09
9	10	AI1604	2022-09-09	2022-11-09
10	11	SE1603	2022-09-09	2022-11-09
11	12	SE1604	2022-04-06	2022-07-01

4. Table Subject

48.

SubjectID	SubjectName
1	DBI202
2	LAB211
3	CSD201
4	JPD113
5	IAO202
6	PRO192
7	OSG202
8	SSG104
9	MAD101
10	NWC204

5. Table Term

TermID	TermName
1	Fall2021
2	Spr2022
3	Su2022
4	Su2021
5	Spr2021
6	Fall2022

Query 1 : Tổng số học sinh của 1 môn học

```sql
select count(s.StudentID) as totalStudent,c.SubjectName
from Students s join Student_Subject sc on s.StudentID = sc.StudentID
join Subjects c on c.SubjectID = sc.SubjectID
where sc.SubjectID = 2
group by c.SubjectName

having count(s.StudentID) >2
```

	totalStudent	SubjectName
1	4	LAB211

Query 2 : Tổng số học sinh của 1 lớp

```sql
select count(s.StudentID) as totalStudent,c.ClassName
from Students s join Student_Class sc on s.StudentID = sc.StudentID
join Class c on c.ClassId = sc.ClassId
where sc.ClassId = 2
```

49.

group by c.ClassName

having count(s.StudentID) >2

	totalStudent	ClassName
1	4	AI1601

Query 3

-- A QUERY THAT USES ORDER BY --
SELECT * FROM Students ORDER BY [FirstName], [LastName]

	StudentID	FirstName	LastName	DoB	Address	Email	Gender
1	HE115	BV	E	2002-08-06	Việt Nam	He115@g.c	1
2	HE113	HB	C	2002-08-06	Việt Nam	He113@g.c	0
3	HE114	KH	D	2000-04-05	NULL	He114@g.c	1
4	HE112	NB	B	2001-02-03	Việt Nam	He112@g.c	0
5	HE117	NG	A	2002-05-03	NULL	He117@g.c	1
6	HE120	NM	H	2001-01-11	NULL	He120@g.c	0
7	HE116	NT	P	2001-07-03	Mỹ	He116@g.c	0
8	HE111	NV	A	2002-05-02	NULL	He111@g.c	1
9	HE118	NV	B	2001-07-15	Việt Nam	He118@g.c	1
10	HE119	TV	N	2002-11-05	Việt Nam	He119@g.c	1

Query 4

-- A QUERY THAT USES INNER JOIN --

Select *
From Students s Inner join Student_Class sc on s.StudentID = sc.StudentID
Inner join Class c on sc.ClassID = c.ClassID
Order by s.StudentID ASC

	StudentID	FirstName	LastName	DoB	Address	Email	Gender	ClassID	StudentID	ClassID	ClassName	Start_Date	End_Date
1	HE111	NV	A	2002-05-02	NULL	He111@g.c	1	1	HE111	1	IA1604	2022-05-09	2022-08-09
2	HE111	NV	A	2002-05-02	NULL	He111@g.c	1	2	HE111	2	AI1601	2022-05-09	2022-08-09
3	HE111	NV	A	2002-05-02	NULL	He111@g.c	1	4	HE111	4	IA1605	2022-05-09	2022-08-09
4	HE111	NV	A	2002-05-02	NULL	He111@g.c	1	5	HE111	5	IA1606	2022-05-09	2022-08-09
5	HE111	NV	A	2002-05-02	NULL	He111@g.c	1	6	HE111	6	IA1607	2022-05-09	2022-08-09
6	HE111	NV	A	2002-05-02	NULL	He111@g.c	1	7	HE111	7	AI1602	2022-09-09	2022-11-09
7	HE111	NV	A	2002-05-02	NULL	He111@g.c	1	3	HE111	3	SE1602	2022-09-09	2022-11-09
8	HE112	NB	B	2001-02-03	Việt Nam	He112@g.c	0	7	HE112	7	AI1602	2022-09-09	2022-11-09
9	HE112	NB	B	2001-02-03	Việt Nam	He112@g.c	0	6	HE112	6	IA1607	2022-05-09	2022-08-09
10	HE112	NB	B	2001-02-03	Việt Nam	He112@g.c	0	4	HE112	4	IA1605	2022-05-09	2022-08-09
11	HE112	NB	B	2001-02-03	Việt Nam	He112@g.c	0	2	HE112	2	AI1601	2022-05-09	2022-08-09
12	HE112	NB	B	2001-02-03	Việt Nam	He112@g.c	0	1	HE112	1	IA1604	2022-05-09	2022-08-09
13	HE113	HB	C	2002-08-06	Việt Nam	He113@g.c	0	1	HE113	1	IA1604	2022-05-09	2022-08-09
14	HE113	HB	C	2002-08-06	Việt Nam	He113@g.c	0	5	HE113	5	IA1606	2022-05-09	2022-08-09
15	HE113	HB	C	2002-08-06	Việt Nam	He113@g.c	0	6	HE113	6	IA1607	2022-05-09	2022-08-09
16	HE113	HB	C	2002-08-06	Việt Nam	He113@g.c	0	7	HE113	7	AI1602	2022-09-09	2022-11-09
17	HE113	HB	C	2002-08-06	Việt Nam	He113@g.c	0	3	HE113	3	SE1602	2022-09-09	2022-11-09
18	HE114	KH	D	2000-04-05	NULL	He114@g.c	1	6	HE114	6	IA1607	2022-05-09	2022-08-09
19	HE114	KH	D	2000-04-05	NULL	He114@g.c	1	4	HE114	4	IA1605	2022-05-09	2022-08-09
20	HE114	KH	D	2000-04-05	NULL	He114@g.c	1	2	HE114	2	AI1601	2022-05-09	2022-08-09
21	HE115	BV	E	2002-08-06	Việt Nam	He115@g.c	1	4	HE115	4	IA1605	2022-05-09	2022-08-09
22	HE115	BV	E	2002-08-06	Việt Nam	He115@g.c	1	6	HE115	6	IA1607	2022-05-09	2022-08-09
23	HE115	BV	E	2002-08-06	Việt Nam	He115@g.c	1	3	HE115	3	SE1602	2022-09-09	2022-11-09
24	HE116	NT	P	2001-07-03	Mỹ	He116@g.c	0	5	HE116	5	IA1606	2022-05-09	2022-08-09
25	HE116	NT	P	2001-07-03	Mỹ	He116@g.c	0	2	HE116	2	AI1601	2022-05-09	2022-08-09
26	HE116	NT	P	2001-07-03	Mỹ	He116@g.c	0	1	HE116	1	IA1604	2022-05-09	2022-08-09
27	HE117	NG	A	2002-05-03	NULL	He117@g.c	1	1	HE117	1	IA1604	2022-05-09	2022-08-09
28	HE117	NG	A	2002-05-03	NULL	He117@g.c	1	5	HE117	5	IA1606	2022-05-09	2022-08-09

Query 5 : Danh sách sinh viên 1 lớp

select count(s.StudentID) as totalStudent,c.ClassName from Students s
join Student_Class sc on s.StudentID = sc.StudentID
join Class c on c.ClassId = sc.ClassId
where sc.ClassId = 1 group by c.ClassName order by totalStudentwhere sc.ClassId = ?

	totalStudent	ClassName
1	6	IA1604

Query 6 : Điểm của 1 sinh viên

select s.*,g.SubjectID,g.total,g.status
from Students s join Student_Subject sb on s.StudentID = sb.StudentID
    join Gradess g on g.SubjectID = sb.SubjectID where s.StudentID = 'HE111'

1	HE111	NV	A	2002-05-02	NULL	He111@g.c	1	1	8.1	Passed
2	HE111	NV	A	2002-05-02	NULL	He111@g.c	1	1	7	Passed
3	HE111	NV	A	2002-05-02	NULL	He111@g.c	1	1	9	Passed
4	HE111	NV	A	2002-05-02	NULL	He111@g.c	1	2	4.5	Not passed
5	HE111	NV	A	2002-05-02	NULL	He111@g.c	1	1	5.6	Passed

51.

Query 7 : Danh sách sinh viên học 1 môn

select * from Students s join Student_Subject sb on s.StudentID = sb.StudentID where sb.SubjectID = 3

	StudentID	FirstName	LastName	DoB	Address	Email	Gender	SubjectID
1	HE111	NV	A	2002-05-02	NULL	He111@g.c	1	3
2	HE112	NB	B	2001-02-03	Việt Nam	He112@g.c	0	3
3	HE113	HB	C	2002-08-06	Việt Nam	He113@g.c	0	3
4	HE114	KH	D	2000-04-05	NULL	He114@g.c	1	3
5	HE116	NT	P	2001-07-03	Mỹ	He116@g.c	0	3

Query 8 : Danh sách môn trong 1 kì

select s.SubjectName,t.TermName from Term t join Subject_Term st on t.TermID = st.TermID
join Subjects s on s.SubjectID = st.SubjectID where st.TermID = 2

	SubjectName	TermName
1	DBI202	Spr2022
2	JPD113	Spr2022
3	PRO192	Spr2022
4	OSG202	Spr2022

Query 9 : Danh sách xem 1 học sinh ở những lớp nào

```
Create Procedure    PR1 @StudentID varchar(10)
AS
BEGIN
        select *
        From Student_Class
        where StudentID = @StudentID
END
```

execute PR1 'HE111'

Query 10 : Danh sách xem bảng điểm của 1 môn

```
 select * from Subjects s, Gradess g
 where s.SubjectID = g.SubjectID and s.SubjectId = 4
```

52.

	SubjectID	SubjectName	GradeID	status	SubjectID	total
1	4	JPD113	11	Passed	4	7
2	4	JPD113	12	Passed	4	6.7
3	4	JPD113	13	NULL	4	0
4	4	JPD113	14	NULL	4	0
5	4	JPD113	15	Passed	4	8.2

V . Tổng kết và đánh giá

Như vậy, Cơ bản cở sở dữ liệu đánh giá và truy xuất thông tin quản lí điểm sinh viên đã được hoàn thành.

Cách xây dựng cơ sở dữ liệu này đã đáp ứng được các yêu cầu như:

thêm, sửa, xóa, truy xuất và dễ dàng theo dõi được hệ thống điểm của từng sinh viên, lớp học và đảm bảo tính chính xác trong từng thời gian chỉnh sửa.Về cơ bản database chỉ hoàn thiện gần như ở mức cơ bản cho người dung và cơ sở dữ liệu này vẫn chưa được đánh giá và trình bày một cách khoa học để có thể được kế thừa và phát triển ở các lĩnh vực khác. Đây là bài làm cá nhân và là bài đầu tiên tự tay thiết kế.Cảm ơn mọi người đã theo dõi tiến trình xây dựng cơ sở dữ liệu " Quản Lí Điểm FLM "và rất mong có được sự góp ý đến từ người xem để Database có thể trở nên hoàn thiện hơn và ứng dụng được vào trong cuộc sống.

Xin trân thành cảm ơn.

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