LARANA, INC.

ASSIGNMENT

NGUYỄN SINH THÁI-HE170658-SE1816

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BUSINESS REPORT

1. ẢNH MINH HỌA HỌC SINH CỦA LỚP SE1818

Student_Class_ID	ID_Student	Student_Name	Start_Date	End_Date
3	HE170658	Nguyen Sinh Thai	2022-09-01	2022-12-31
10	HE171772	Bui Van Hung	2022-09-01	2022-12-31
11	HE171807	Le Quang Huy	2022-09-01	2022-12-31
12	HE172497	Nguyen Hoang Long	2022-09-01	2022-12-31

2. ẢNH MINH HỌA ĐIỂM MÔN HỌC TRONG CÁC KÌ HỌC SINH Nguyễn Sinh Thái

Subject_Code	Subject_Name	Term_Name	ID_Class	Start_Date	End_Date	Total	Status
DBI202	Introduction to Databases	Spring2022	SE1816	2022-01-01	2022-04-30	8	PASSED

3.Ảnh minh họa các bài test của môn học DBI

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	

Activate Windows
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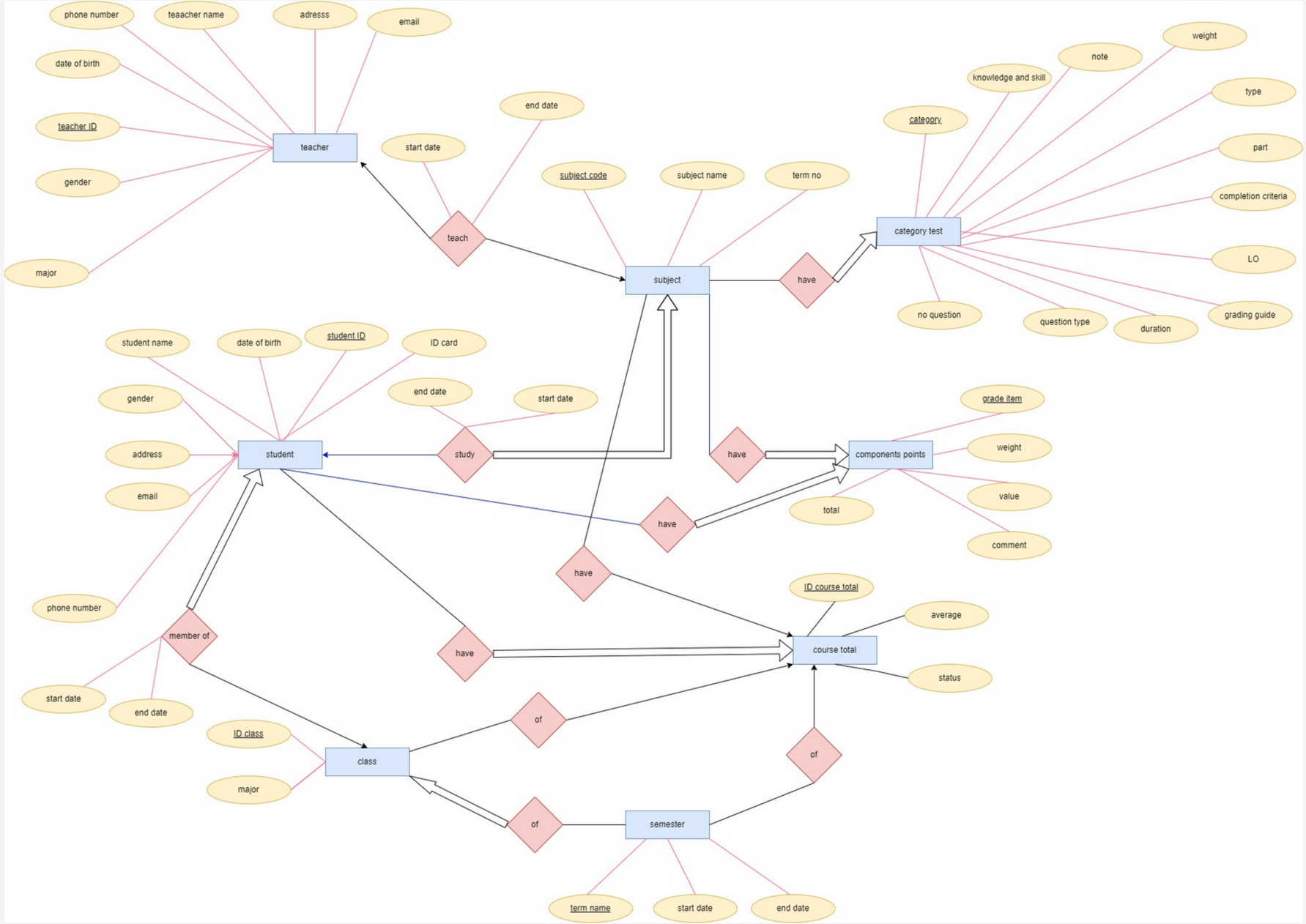
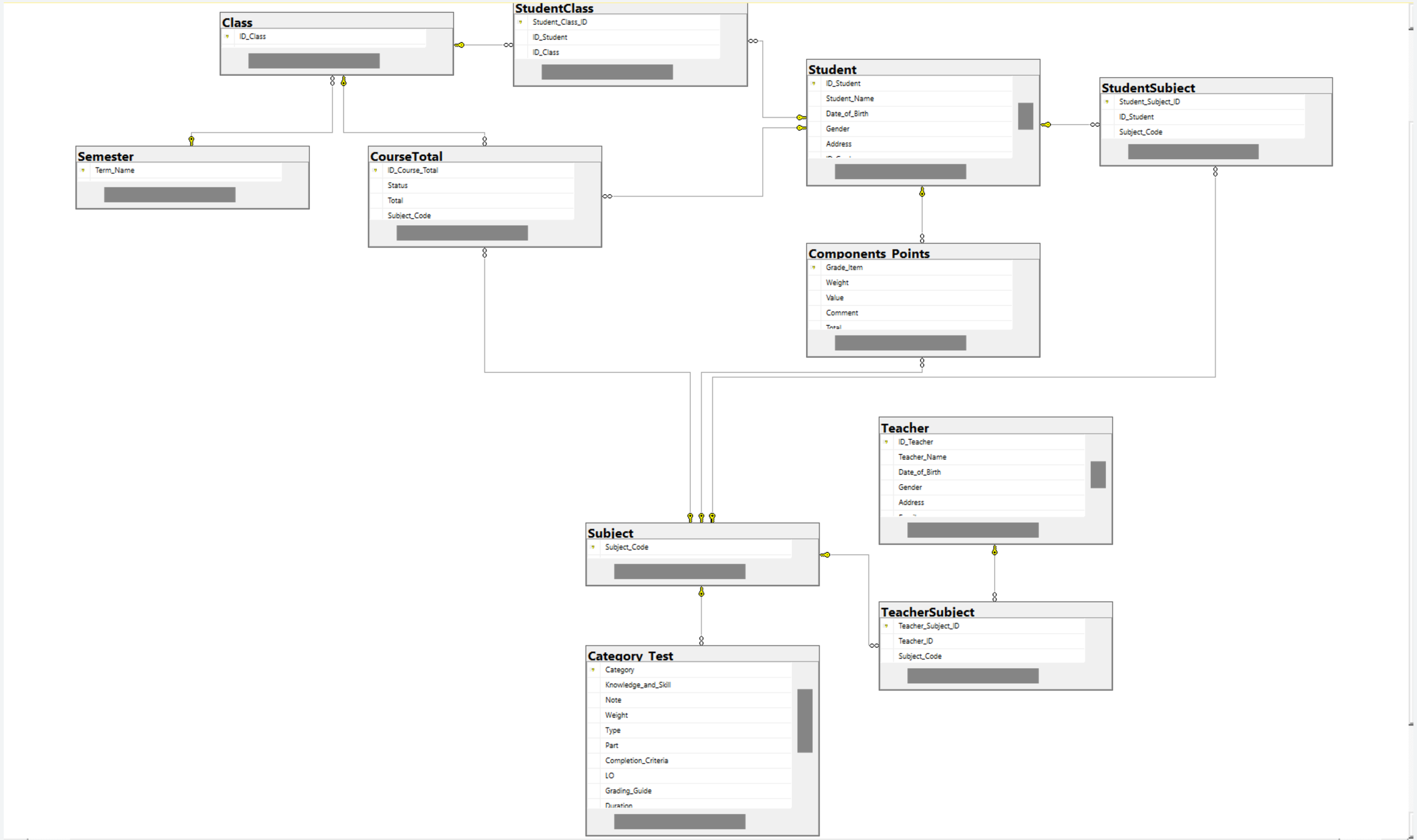
4.ĐIỂM MÔN HỌC CỦA MỘT HỌC SIN

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**		

ERD
AND
DATA SCHEMA




Class
ID_Class
StudentClass
Student_Class_ID
ID_Student
ID_Class
Student
ID_Student
Student_Name
Date_of_Birth
Gender
Address
StudentSubject
Student_Subject_ID
ID_Student
Subject_Code
Semester
Term_Name
CourseTotal
ID_Course_Total
Status
Total
Subject_Code
Components_Points
Grade_Item
Weight
Value
Comment
Total
Teacher
ID_Teacher
Teacher_Name
Date_of_Birth
Gender
Address
Subject
Subject_Code
TeacherSubject
Teacher_Subject_ID
Teacher_ID
Subject_Code
Category_Test
Category
Knowledge_and_Skill
Note
Weight
Type
Part
Completion_Criteria
LO
Grading_Guide
Duration

Normalization

Xác định thuộc tính

studentID,student name,gender,address,ID card,date of birth,,email,phone number,teacherID,teacher name, gender,major,ID class,subject code,subject name,term no,category,knowledge and skill,note,weight,type,part,completion criteria,LO,grading guide,duration,question type,no question,grade item,value,comment,total,ID course total,average,status,term name

Xác định phụ thuộc hàm:

Subject code,category-> knowledge and skill,note,weight,type,part,completion criteria,LO,grading guide,duration,question type,no question

Grade item,subject code,student ID-> value,comment,total

ID course total,subject code,student ID -> average , status

ID Class, Teacher ID-> major, teacher name, date of birth , gender , address, major,phone number,email

ID student, Subject code, Term name -> Student name , date of birth , gender, address, ID card, email , phone number, Subject name , term No, start date , end date

ID student, ID Class-> Student name , date of birth , gender, address, ID card, email , phone number, major

Xác định khóa

ID student, Subject code, Term name, ID Class, Teacher ID, category, Grade item, ID course total

Bảng đã đạt 3NF

CATEGORY OF SUBJECT (Subject code,category, knowledge and skill,note,weight,type,part,completion criteria,LO,grading guide,duration,question type,no question)

COMPONENTS POINTS OF STUDENT(Grade item,subject code,student ID, value,comment,total)

COURSE TOTAL (ID course total,subject code,student ID,average , status)

TEACHER AND CLASS(ID Class, Teacher ID,major, teacher name, date of birth , gender , address, major,phone number,email)

STUDENT AND CLASS(ID student, ID Class,Student name , date of birth , gender, address, ID card, email , phone number, major)

STUDENT AND SUBJECT(ID student, Subject code, Term name , Student name , date of birth , gender, address, ID card, email , phone number, Subject name , term No, start date , end date)

QUERY

```
-- ORDER BY , SAP XEP ALPHABET TEN HOC SINH
SELECT * FROM Student
ORDER BY Student_Name
```

	ID_Student	Student_Name	Date_of_Birth	Gender	Address	ID_Card	Email
1	SE184773	Bui Le Thai Son	2003-01-01	Male	Address59	IDCard59	builethaison@example.com
2	HE172387	Bui Minh Tu	2003-01-01	Male	Address20	IDCard20	buiminhtu@example.com
3	HE171772	Bui Van Hung	2003-01-01	Male	Address35	IDCard35	buivanhung@example.com
4	HE176906	Dao Ngoc Nam	2004-01-01	Male	Address30	IDCard30	daongocnam@example.com
5	HE176719	Dau Dinh Hieu	2003-01-01	Male	Address29	IDCard29	daudinhhieu@example.com
6	HE170064	Dinh Gia Han	2003-01-01	Female	Address5	IDCard5	dinhgiahan@example.com
7	HE176242	Do Dai Loc	2003-01-01	Male	Address44	IDCard44	dodailoc@example.com
8	HE176562	Do Duc Ngoc	2002-01-01	Male	Address46	IDCard46	doducngoc@example.com
9	HE170797	Do Trung Hieu	2002-01-01	Male	Address31	IDCard31	dotrunghieu@example.com
10	HE172772	Ha Dinh Minh	2003-01-01	Male	Address38	IDCard38	hadinhminh@example.com

```
--INNER JOIN , LAY TEN HOC SINH LOP HO DANG HOC VA MON HOC.
SELECT Student.Student_Name, Class.ID_Class, Subject.Subject_Name
FROM Student
INNER JOIN StudentClass ON Student.ID_Student = StudentClass.ID_Student
INNER JOIN Class ON StudentClass.ID_Class = Class.ID_Class
INNER JOIN StudentSubject ON Student.ID_Student = StudentSubject.ID_Student
INNER JOIN Subject ON StudentSubject.Subject_Code = Subject.Subject_Code;
```

	Student_Name	ID_Class	Subject_Name
1	Nguyen Sinh Thai	SE1816	Introduction to Databases
2	Nguyen Sinh Thai	SE1816	Data Structures and Algorithms

```
--A query that uses the GROUP BY and HAVING clauses , ĐEM SO MON HOC SINH VIEN DA DANG KI
SELECT s.ID_Student, s.Student_Name, COUNT(ss.Subject_Code) AS NumberOfSubjects
FROM Student s
LEFT JOIN StudentSubject ss
ON s.ID_Student = ss.ID_Student
GROUP BY s.ID_Student, s.Student_Name
HAVING COUNT(ss.Subject_Code) > 1;
```

	ID_Student	Student_Name	NumberOfSubjects
1	HE170658	Nguyen Sinh Thai	2

```
--SUB QUERY WHERE CLAUSE , LAY TEN CUA HOC SINH TRONG MOT LOP HOC CU THE
SELECT s.Student_Name
FROM Student s
WHERE s.ID_Student IN (
    SELECT sc.ID_Student
    FROM StudentClass sc
    WHERE sc.ID_Class = 'SE1817'
);
```

	Student_Name
1	Nguyen Sinh Thai

```
--SUB QUERY AS RELATION LAY RA HOC SINH VA LOP
SELECT s.Student_Name, c.ID_Class
FROM Student s
INNER JOIN (
    SELECT DISTINCT ID_Student, ID_Class
    FROM StudentClass
) c ON s.ID_Student = c.ID_Student;
```

	Student_Name	ID_Class
1	Nguyen Sinh Thai	SE1816
2	Nguyen Sinh Thai	SE1817
3	Nguyen Sinh Thai	SE1818
4	Bui Van Hung	SE1818
5	Le Quang Huy	SE1818
6	Nguyen Hoang Long	SE1818
7	Tran Dinh Duc	AI1702
8	Tran Dinh Duc	HS1602
9	Tran Dinh Duc	HS1823

```
--A query that uses partial matching in the WHERE clause , lay ra hoc sinh ho nguyen
SELECT Student_Name
FROM Student
WHERE Student_Name LIKE '%Nguyen%';
```

	Student_Name
1	Nguyen Anh Tien
2	Nguyen Doan Trong
3	Nguyen Hoang Linh
4	Nguyen Hoang Long
5	Nguyen Hoang Phuc
6	Nguyen Huy Duc
7	Nguyen Huy Thang
8	Nguyen Khac Tung
9	Nguyen Kim Duong
10	Nguyen Manh Tu
11	Nguyen Nam Anh Tuan
12	Nguyen Phu An
13	Nguyen Phuong Trang
14	Nguyen Quang Huy
15	Nguyen Quoc Trung

```
--SEFT JOIN , LAY RA GIAO VIEN CUNG MAJOR
SELECT t1.Teacher_Name AS TeacherName, t2.Teacher_Name AS Colleague
FROM Teacher AS t1
JOIN Teacher AS t2 ON t1.Major = t2.Major
WHERE t1.ID_Teacher = 'sonnt5' AND t2.ID_Teacher != 'sonnt5';
```

	TeacherName	Colleague
1	Ngo Tung Son	Nguyen Thi Oanh