**FINAL REPORT**

**TOPIC:** **SCHOOL MANAGEMENT SYSTEM**

**MEMBERS:**

|  |  |  |
| --- | --- | --- |
| **Name** | **Student ID** | **Role** |
| Lê Thanh | ITITIU17070 | Member |
| Trần Minh Ngọc | ITITIU17068 | Member |
| Trang Thanh Mai Duyên | ITITUN17007 | Leader |

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1. **INTRODUCTION**
   1. **My Project**

* We have implemented a project on the topic School Management System
  1. **Tasks**
* We met and discussed a few things and decided to divide the project into the following tasks:

• First, we discussed together and came up with ideas about ERD

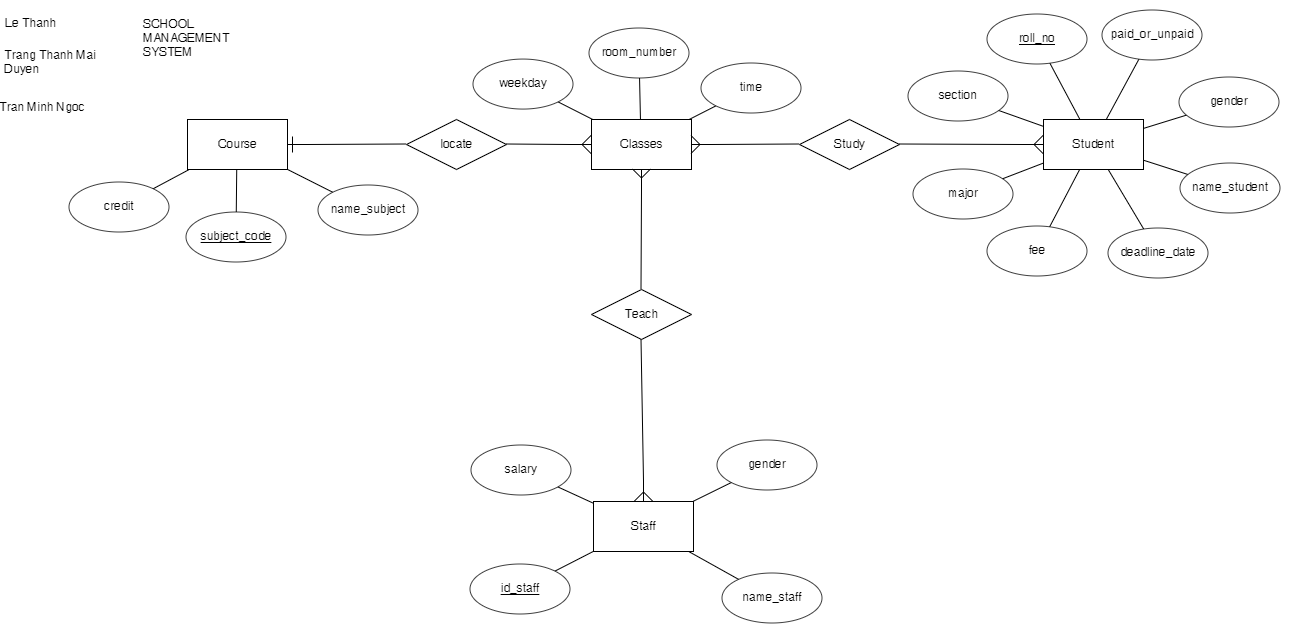
• Next, we base on ERD and draw Relational Model

• Then create the table and insert the information into the tables in the database

• Finally, we designed the interface to retrieve data from the database and display it in the most user-friendly way

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Duyên** | **Ngọc** | **Thanh** |
| Create table | X |  |  |
| Insert data | X |  | X |
| Draw ERD |  |  | X |
| Draw Relational Model |  |  | X |
| Write query retrieving data | X |  |  |
| Find the reference | X | X | X |
| Design GUI |  | X |  |
| Code the GUI function |  | X |  |
| Write proposal | X |  |  |
| Write report |  |  | X |
| Check grammar/edit report | X |  |  |
| Fix bug | X | X |  |

1. **ENTITY-RELATIONSHIP MODELING**

****

1. **Entity and attribute**

* Course (subject\_code(PK), name\_subject, credit)
* Classes ((room\_number,weekday,time)PK):

• weekday

• room\_number

• time

* Student:

• roll\_no (PK)

• section

• paid\_or\_unpaid

• gender

• major

• fee

• deadline\_date

• name\_student

* Staff:

• id\_staff (PK)

• name\_staff

• gender

• salary

1. **Explanation**
   * Entity course is represented for the subject so it has attribute: subject\_code, name\_subject and credit
   * Entity Classes is represented for the classes of each course (1 course can have many classes in different time or room in the schedule, and it cannot be duplicated) so it has attribute: weekday, room\_number, time
   * Entity Student is represented for student(of course) and it have attribute: roll\_no(id student), section, paid\_or\_unpaid( the status to distinguish student that paid and not), gender(male/female), name\_student, deadline\_date(the deadline for student to pay the fee), major
   * Entity Staff is represented for teacher and it have attribute: id\_staff, name\_staff, gender, salary
   * In relationship, we have those relation between 2 entities:

• “Locate” between Course and Classes (1 to many)

• “Study” between Classes and Student (many to many)

• “Teach” between Classes and Staff (many to many)

* + Function of system:

• Get information of staff, student

• Get the information about the course

• Get the information about the tuition of student and salary of staff

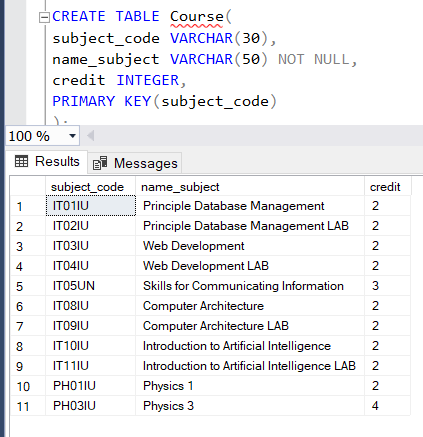
• Get the schedule of student

• Get the schedule of teacher

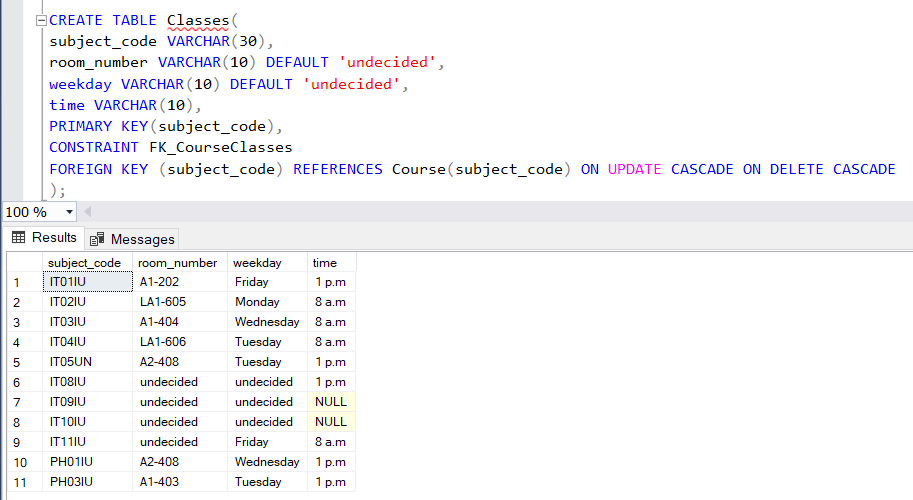
1. **RELATIONAL MODEL**
2. **DATABASE**

* Create new database name “School\_Management”
* Create tables and insert data:

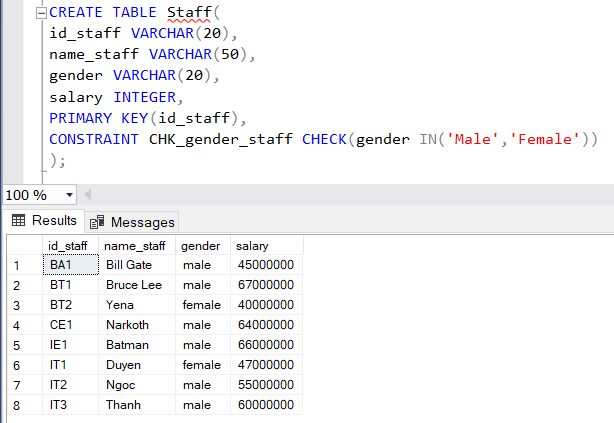
**• Course**



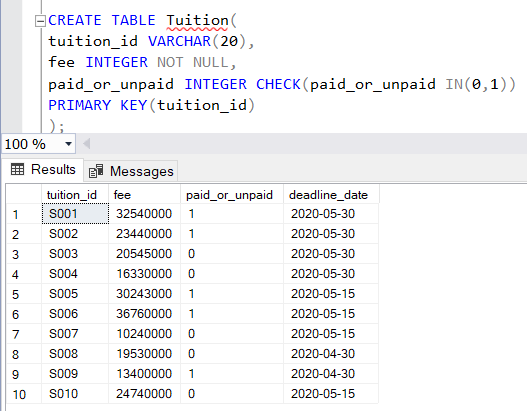
**• Classes**



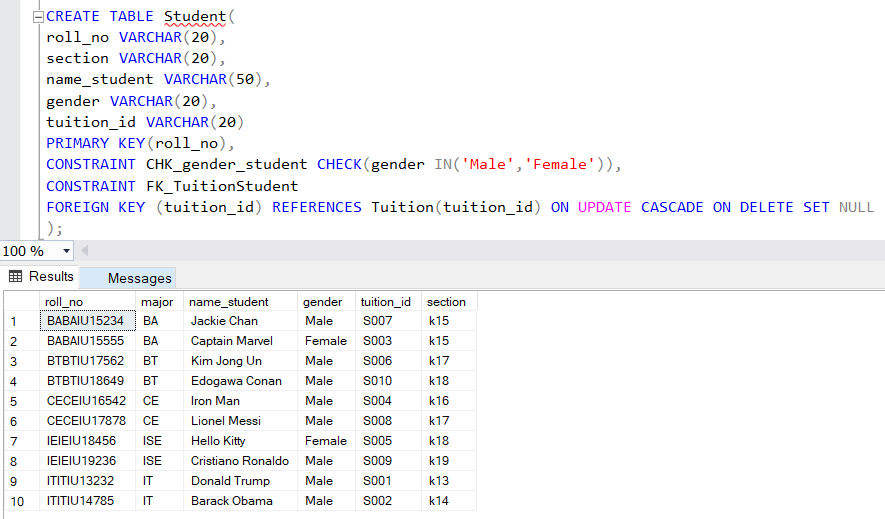
•  **Staff**



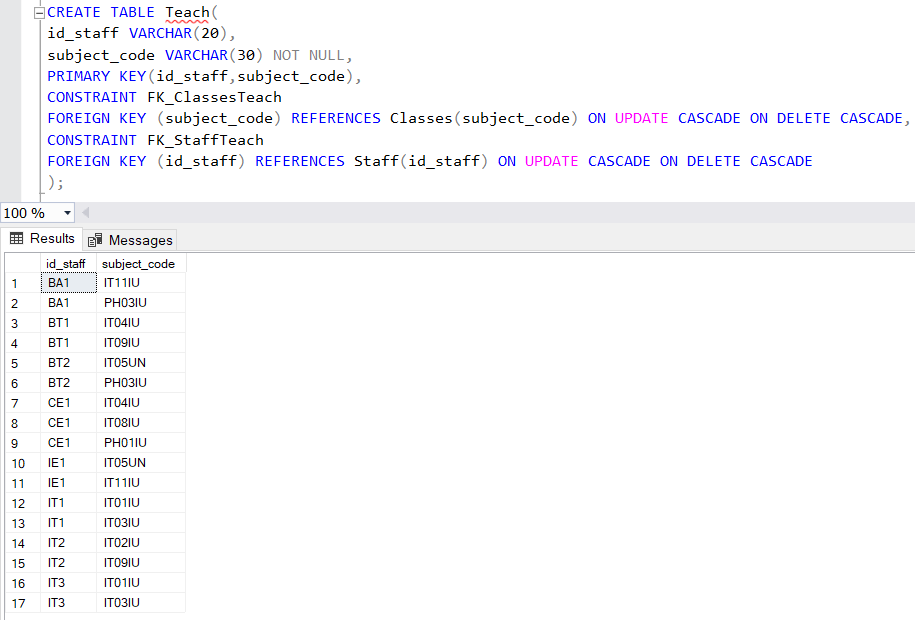
• **Tuition**



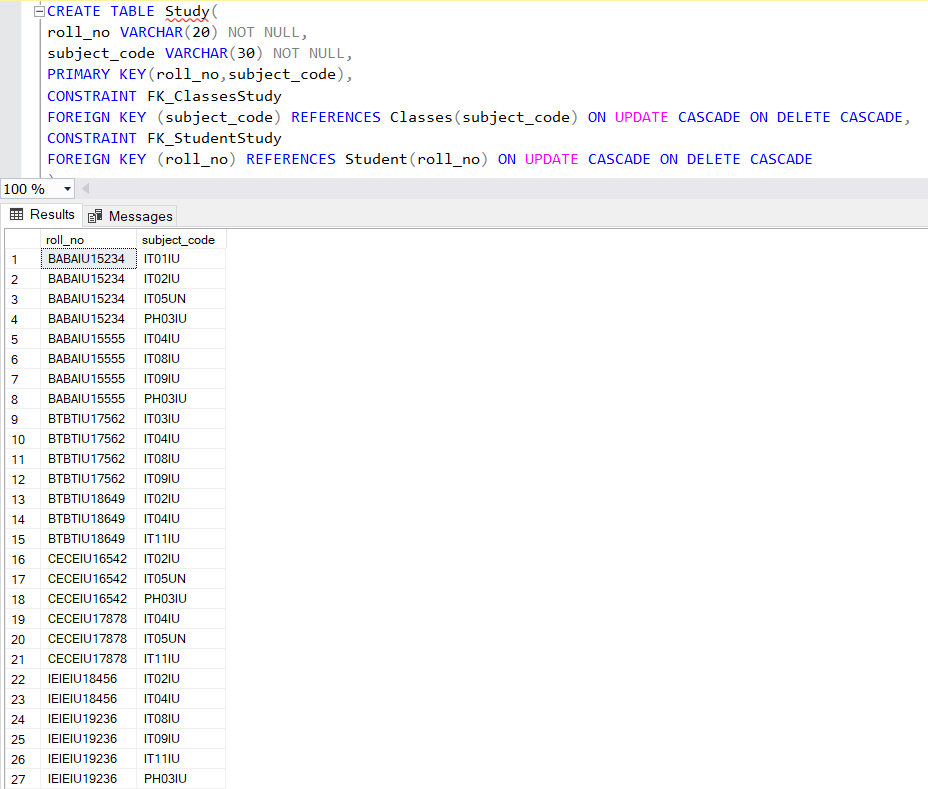
• **Student**



• **Teach**



**• Study**



1. **GUI**

**REFERENCES**

* SQL:
  + - <https://www.w3schools.com/sql/>
* GUI (java swing):
  + - <https://www.javatpoint.com/java-joptionpane>
    - <https://www.youtube.com/watch?v=QKsfHqu4Pps>
    - <https://www.youtube.com/watch?v=WIMojkwMTa0>