HO CHI MINH UNIVERSITY OF TECHNOLOGY AND EDUCATION



FINAL PROJECT

SUBJECT: WINDOW PROGRAMMING

TOPIC: STUDENT'S PROJECT MANAGEMENT

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Ho Chi Minh, 01/7/2020

Score

Criteria	Content	Presentation	Overall
Score			
Observations of Instructor:			

Observations of Instructor:	
•••••	
•••••	
Evaluation:	
Nguyen Tan Loc:	
Truong Viet Hoang:	 •••••
Phan Vinh Loc:	

Teacher Guide

Phung

Huynh Xuan Phung

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Chapter 1: Program Overview

1.1 About the Project

 Design and build object-oriented software to create t software which can manage the student's project

1.1.1 Purpose

- Help instructor can manage the student's project
- We can know the owner of the project
- We can know the instructor of the project
- We can know the detail of the project

1.1.2 Requirements

- Manage student's information
- Instructors (Lecture)
- Project's information and report

1.1.3 Project Analysis

- Building object oriented software
- The output of data is the application

1.1.4 Expected Interface

This project includes the following forms:

- Student
- Lecture
- Project

1.1.5 Technical Requirements

- Fulfilling the requirements set out by the project
- Application of object-oriented programming
- Software capacity is light, stable running

1.1.6 Technology and Tool

- Design Graphical User Interface (GUI) by Visual Studio 2019 (Tool)
- Design View Model and Data Model by Visual Studio 2019 (Code C#)
- Building software on EntityFramework.6.2.0
- SQL Server

Chapter 2: Work Assignment

2.1. Work Plan

Week	Date	Work
Week 10	02/06	Design Data Base But Wrong
Week 11	09/06	Design Data Base
Week 12	16/06	Design Class + GUI
Week 13	23/06	Design View Model and Data Model
Week 14	30/06	Finish

2.2 Work Assignment

Number Order	Name of student	Description	Contribute (%)
1	Nguyen Tan Loc	Design Class	40%
2	Truong Viet Hoang	Design GUI, Function Login	30%
3	Phan Vinh Loc	Design Data Base Install and Test Write Report	30%

Chapter 3: Design Software

3.1 Design Interface

3.1.1 Program Interface

Student name: Truong Viet Hoang

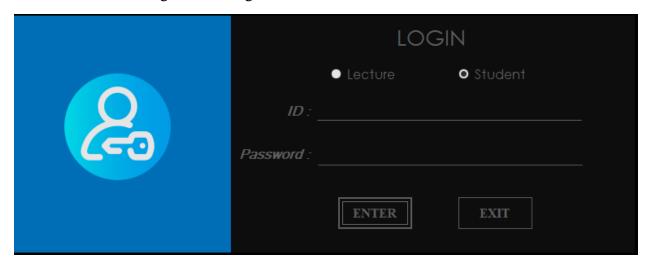


Figure 1: Login Interface

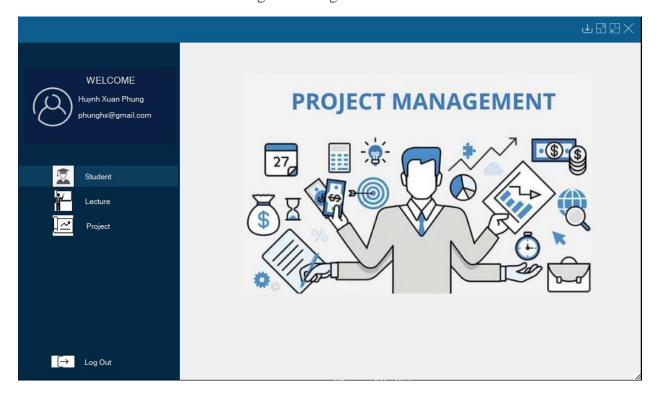


Figure 2: Interface of user when log in successful (Home Page)

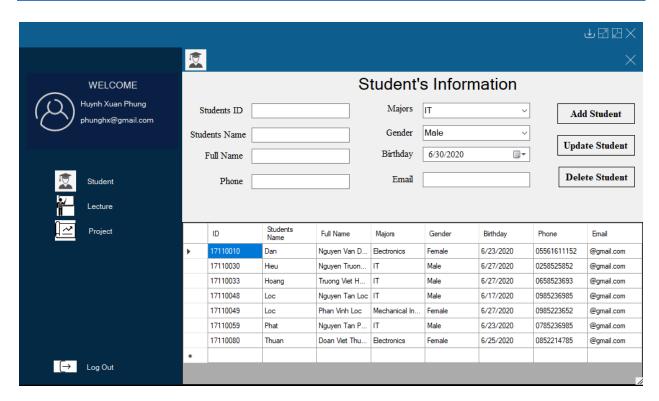


Figure 3: Form Student's Information

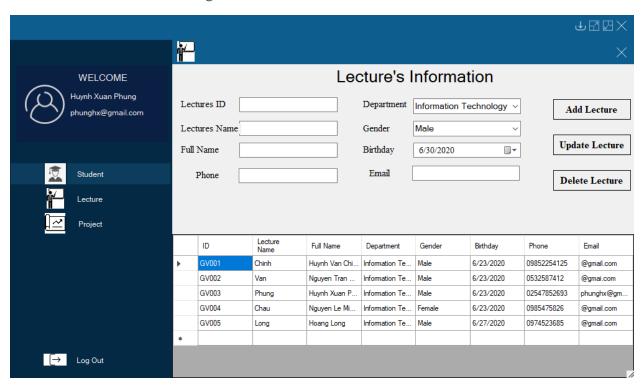


Figure 4: Form Lecture's Information

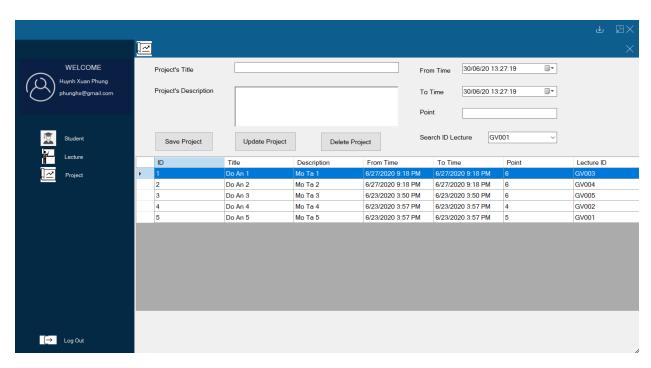


Figure 5: Form Project

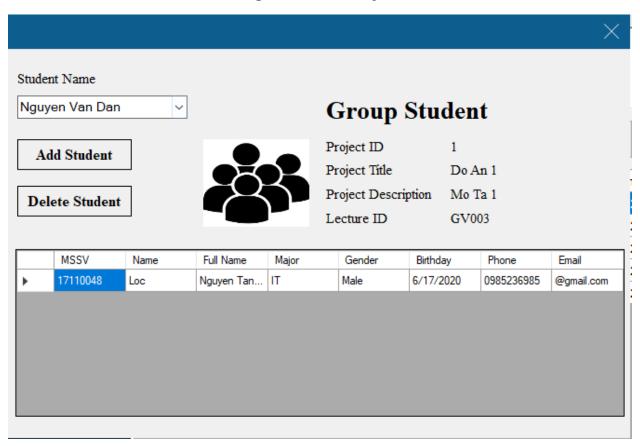


Figure 6: Form Project Detail

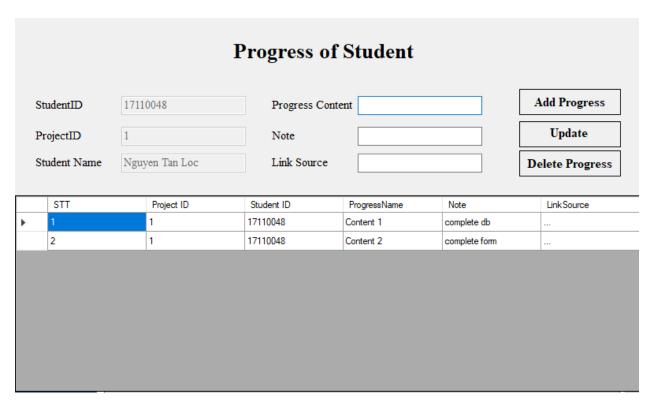


Figure 7: Form Progress of Student

About Interface of Student such as Lecture but can't Add, Update And Delete, etc. The student just can view

3.1.2 Interface Specification

Table 1: Interface Specification

Form	Type of button	Purpose
	Radio Button (Select Role)	Allow you select type of user to login
Login Form	Button (Login)	Check your ID and password after that let you log in
	Button (Exit)	You can exit the program when you don't use
Home page Form	Button (Student)	Let you enter in student form and edit on it

	Button (Lecture)	Let you enter in lecture form and edit on it
	Button (Project)	Let you enter in project form and edit on it
	Button (Log out)	Allow log your account out and you can log in with another account
	Button (Add Student)	Allow you add information of new student
Student's Information Form	Button (Update Student)	Allow you edit information of the student who is added
	Button (Delete Student)	Allow you delete information of the student
	Button (Add lecture)	Allow you add information of new lecture
Lecture's Information Form	Button (Update lecture)	Allow you edit information of the lecture who is added
	Button (Delete lecture)	Allow you delete information of the lecture
	Button (Add project)	Allow you add information of new project
Project Form	Button (Update project)	Allow you edit information of the project which is added
	Button (Delete project)	Allow you delete information of the project
Project Detail Form	Combo box (List of students who are had information in Student Form)	Allow you select the name of student
	Button (Add Student)	Add the student you choose in the combo box into the

		project which you chosen before
	Button (Delete Student)	Delete the student you choose in the data grid view of the project which you chosen before
	Button (Add progress)	Allow you access into the project's progress and add progress for student
Progress of Student Form	Button (Update progress)	Allow you access into the project's progress and update progress for student
	Button (Delete progress)	Allow you access into the project's progress and delete progress for student

3.2 Design Class

3.2.1 Sample list of classes used in the program

Student name: Nguyen Tan Loc

Table 2: Design Class

TT	Class name	Purpose
	Inheritance or lead	
	export from (specify name	
	base class) – if have	
1	- Class UserLogin	Before using the program, the user must create a login account
2	 Class Lecture Foreign Key IDLoginL references UserLogin(ID) 	Store information of lecturer and decentralization for teachers when creating accounts (Lecturers have

		the right to use the add, edit, delete functions)
3	 Class Student Foreign Key IDLogin references UserLogin(ID) 	Store information of students and decentralization for students when creating accounts (Students only have permission to view)
4	 Class Project Foreign Key L_ID references Lecture(L_ID) 	Store information of project and save the name of that project lecturer
5	 Class ProjectManagement Foreign Key P_ID references Project(P_ID) Foreign Key S_ID references Student(S_ID) Set P_ID and S_ID is primary key that get all the information of Project and Student 	From this table we can save the project information, know the name of the lecturer and the teacher can create groups for students.
6	 Class Progress Foreign Key P_ID references	Every student needs to record the process of completing the project. Get the ID of Project and Student to know what projects students do, lecturer, and what each student can do

3.2.2 The sample table describes the methods in a class

Student name: Nguyen Tan Loc

Table 3: The sample table describes the method in a class

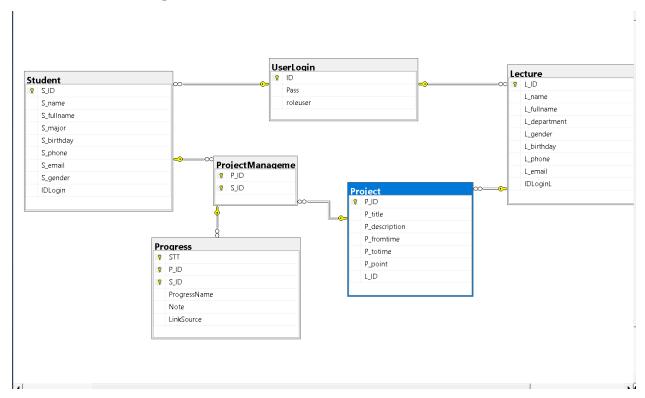
TT	Method	Purpose	File name, line
			number containing
			the declaration

1	public static Student getStudentInfomationAfter Login(string idLogin) Input: idLogin Output: If class Students have IDLogin == idLogin => return Student	Check if the student class has an account that matches the ID of the UserLogin class. If identical then return student Else error note	DBProjectStudent/C ontroller/StudentCo ntroller.cs (159)
2	public static List <progress> listProgressOfStudent(int P_ID,string S_ID) Input: P_ID, S_ID Output: list Progress of Student</progress>	Find the ID student done ID project is to record the project completion process	DBProjectStudent/C ontroller/StudentCo ntroller.cs (150)
3	<pre>public static List<student> getStudentDetail() Input: nothing Output: list Student</student></pre>	Get all full name student that lecturer create group	DBProjectStudent/C ontroller/StudentCo ntroller.cs (134)
4	public static List <student> getAllStudentbyIDproject(i nt idproject) Input: idproject Output: list student</student>	Show the group student working on that project	DBProjectStudent/C ontroller/ ProjectManagement Controller.cs (42)
5	public static Lecture getLectureInfomationAfter Login(string idLogin) Input: idLogin Output: If class Lecturer have IDLogin == idLogin => return Lecturer	Check if the lecturer class has an account that matches the ID of the UserLogin class. If identical then return lecturer Else error note	DBProjectStudent/C ontroller/LectureCo ntroller.cs (128)

3.3 Design Database

Student Name: Phan Vinh Loc

3.3.1 Database Diagram



3.3.2 Database Specification and Field Description

Table 4: UserLogin

Column name	Data Type	Note
ID	Varchar(20)	
Pass	Varchar(20)	
Roleuser	Varchar(10)	

Table 5: Student

Column name	Data Type	Note
S_ID	Varchar(20)	Student ID
S_Name	Nvarchar(100)	Student Name
S_Fullname	Varchar(50)	Student Fullname
S_Major	Varchar(50)	Student Major
S_Birthday	Varchar(50)	Student Birthday
S_Phone	Varchar(50)	Student Phone
S_Email	Varchar(50)	Student Email
S_Gender	Varchar(50)	Student Gender
ID	int	ID Login

Table 6: Lecture

Column name	Data Type	Note
L_ID	Varchar(20)	Lecture ID
L_Name	Nvarchar(100)	Lecture Name
L_Fullname	Varchar(50)	Lecture Fullname
L_Department	Varchar(50)	Lecture Department
L_Birthday	Datetime	Lecture Birthday
L_Phone	Varchar(50)	Lecture Phone

L_Email	Varchar(50)	Lecture Email
L_Gender	Varchar(50)	Lecture Gender
ID	int	ID Login

Table 7: Project

Column name	Data Type	Note
P_ID	int	Project ID
P_Title	Nvarchar(100)	Project Tile
P_Description	Nvarchar(200)	Project Description
P_Fromtime	datetime	Project Fromtime
P_Totime	datetime	Project Totime
P_Point	Varchar(10)	Project Point
L_ID	Varchar(20)	Lecture ID

Table 8: Progress

Column name	Data Type	Note
STT	Nvarchar(50)	Number order
P_ID	int	
Progress Name	Nvarchar(100)	
Note	Nvarchar(100)	
Link Source	Nvarchar(100)	

Table 9: ProjectManagemnet

Column name	Data Type	Note
P_ID	int	
S_ID	Varchar(20)	

Chapter 4: Install and Test

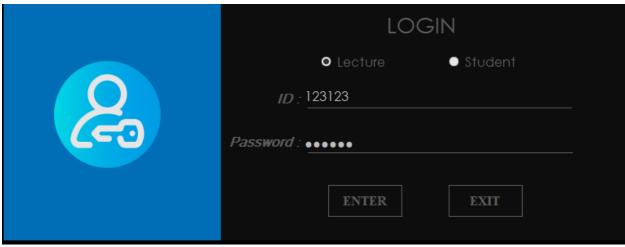


Figure 8: Test 1

Figure 8: Test 1 shows the login interface. Account you can add and allow role user in the data base (SQL server). In this case I log in by account lecture which have ID: 123123 and pass:123123

Test form Student's Information

Add 1 Student who have ID: 17110000, Student's Name: ABC, Full Name: ABCXYZ,

Phone: 0102030405, Major: IT, Gender: Male, Birthday: 1/2/1999, Email:

abcxyz@gmail.com

Before Add

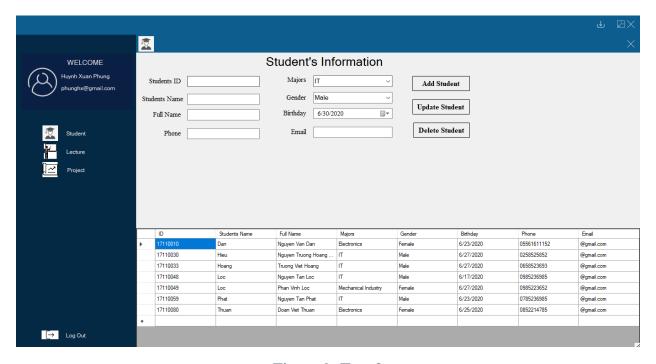


Figure 9: Test 2

After Add

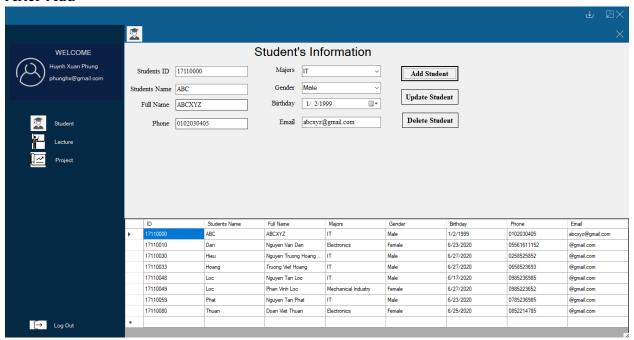


Figure 10: Test 3

Update 1 Student who have ID: 17110000, Student's Name: ABC, Full Name: ABCGGG, Phone: 0607080900, Major: IT, Gender: Female, Birthday: 1/2/1999, Email:

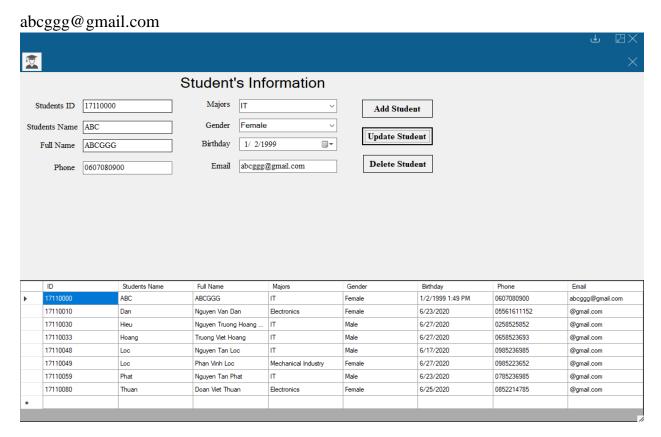


Figure 11: Test 4

Delete 1 Student I will delete student who have ID:17110000 Before Delete

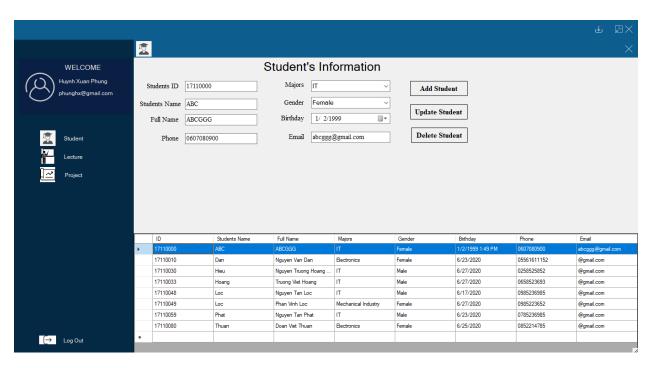


Figure 12: Test 5

After Delete

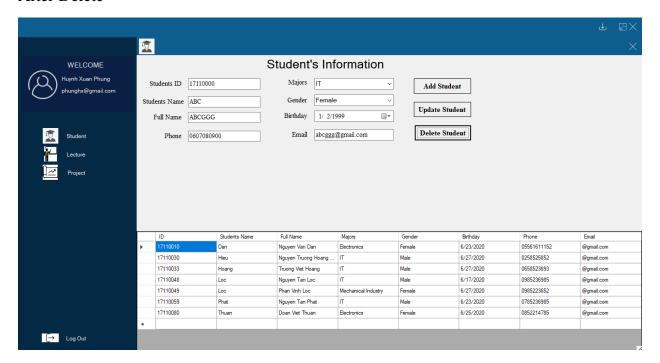


Figure 13: Test 6

The student have ID: 17110000 is deleted

Test form Lecture's Information

Add 1 Lecture

I will add 1 lecture have Lectures ID: GV000, Lectures Name: Quang, Fullname:

Nguyen Dang Quang, Phone:0700010203, Department: Computer Engineer, Gender:

Male, Birthday: 6/30/2020, Email: quangdn@gmail.com

Before Add

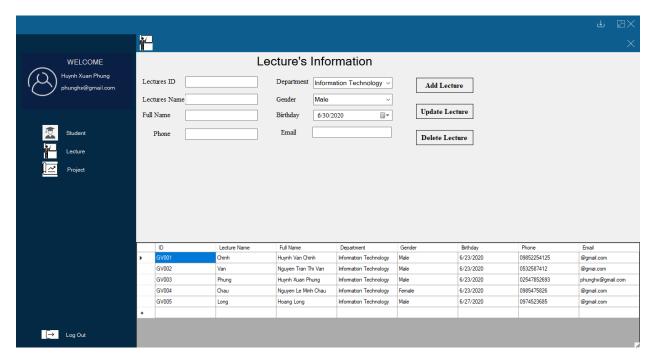


Figure 14: Test 7

After Add

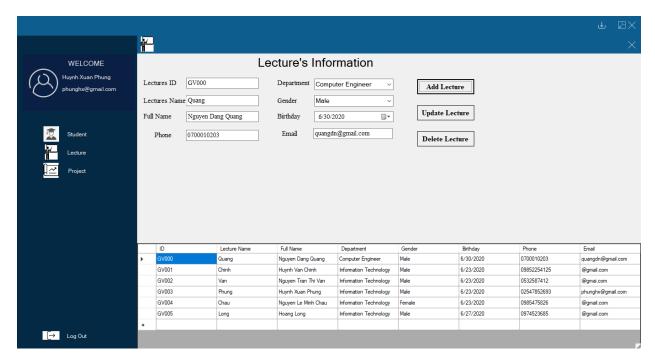


Figure 15: Test 8

Update 1 Lecture

I will update the lecture who have ID: GV000, Department from Computer Engineer to Data Science

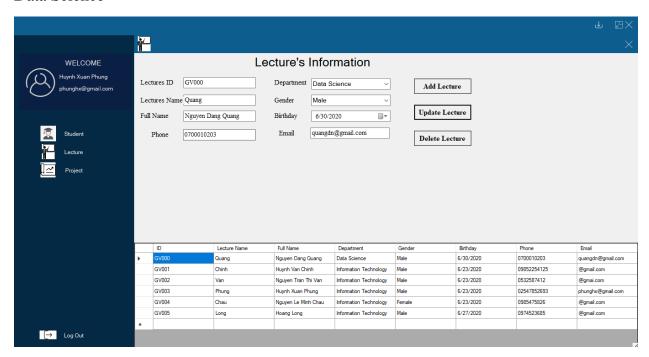


Figure 16: Test 9

Delete 1 Lecture

I will delete the lecture who have ID: GV000

Before Delete

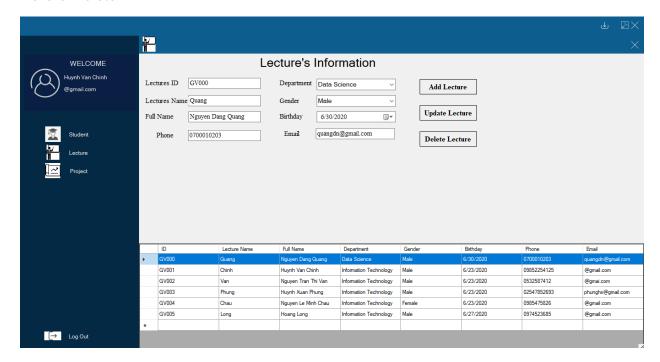


Figure 17: Test 10

After Delete

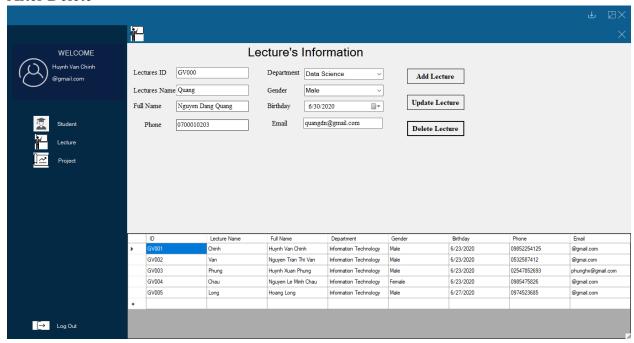


Figure 18: Test 11

The lecture who have ID: GV000 is deleted

Test form Project

Add 1 project

I will add 1 project which have Project's Title: Do An 6, Project's Description: Mo Ta 6,

Form Time: 6/30/2020, To Time: 7/30/2020, Point: Lack, Lecture ID: GV000

Before Add

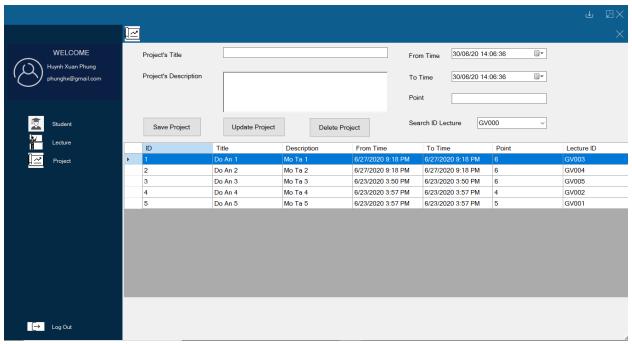


Figure 19: Test 12

After Add

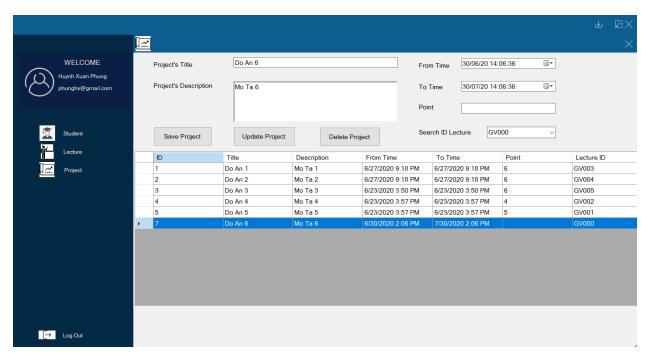


Figure 20: Test 13

Update 1 Project

I will update project which Title: Do An 6 and change the Description to Update Mo ta 6, Change time 6/30/2020 to 8/30/2020

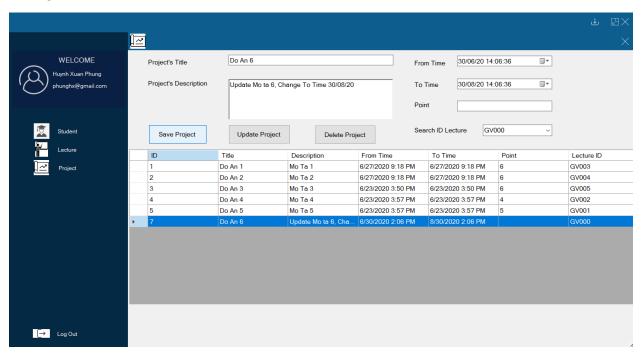


Figure 21: Test 14

Delete 1 Project

I will delete project which have Title: Do An 6

Before Delete

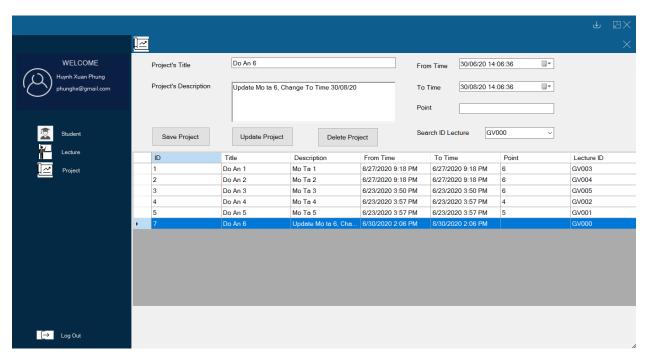


Figure 22: Test 15

After Delete

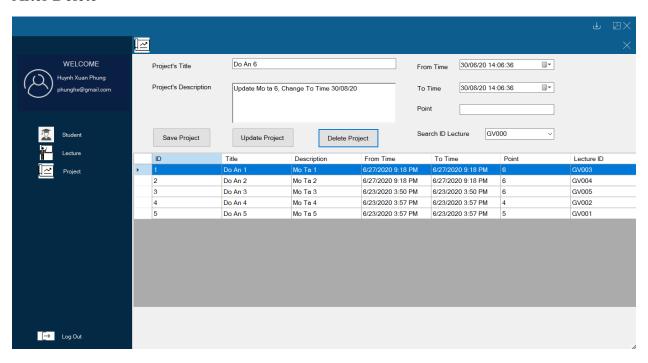


Figure 23: Test 16

The project which have title: Do An 6 is deleted

Test form Project Detail

Add 1 Student in Project Detail

I will add 1 more student in project detail. You can select the student in list Student Name that I added before

Before Add

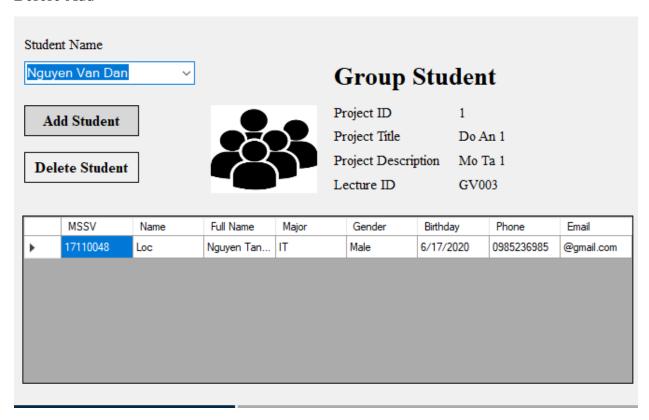


Figure 24: Test 17

After Add

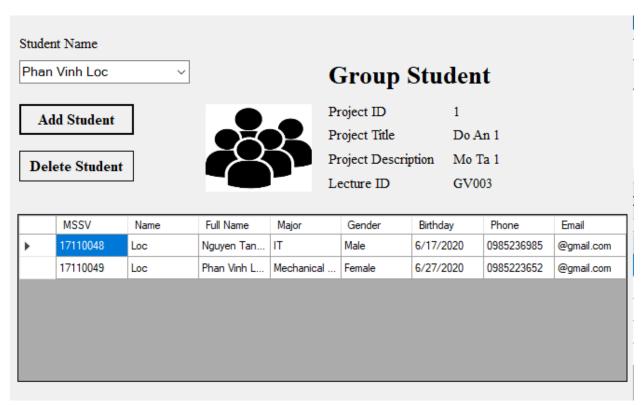


Figure 25: Test 18

Delete 1 Student in Project Detail I will add the student Nguyen Tan Loc

<u>32</u>

Before Delete

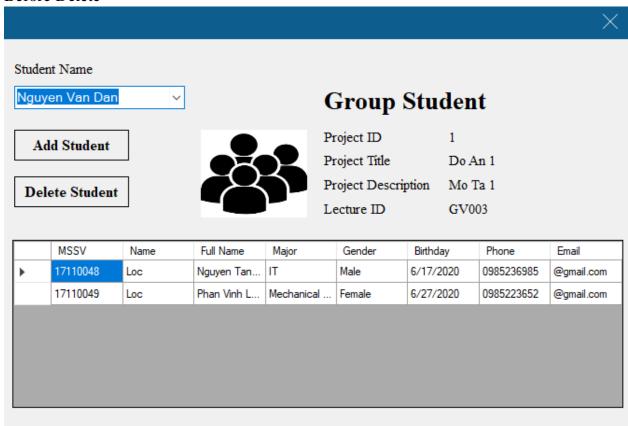


Figure 26: Test 19

After Delete Student Name **Group Student** Nguyen Van Dan Project ID Add Student Project Title Do An 1 Project Description Mo Ta 1 Delete Student Lecture ID GV003 MSSV Name Full Name Major Gender Birthday Phone Email 17110049 Loc Phan Vinh L... Mechanical ... Female 6/27/2020 0985223652 @gmail.com

Figure 27: Test 20

Test form Progress Detail

Add 1 Progress

I will add more progress at the project id 1 with Progress Content: Content 3 and Note: complete report

Before Add **Progress of Student** Add Progress StudentID 17110048 Progress Content Update ProjectID Note Student Name Nguyen Tan Loc Link Source **Delete Progress** STT Project ID Student ID LinkSource ProgressName Note 17110048 Content 1 complete db 17110048 Content 2 complete form

Figure 28: Test 21

After Add

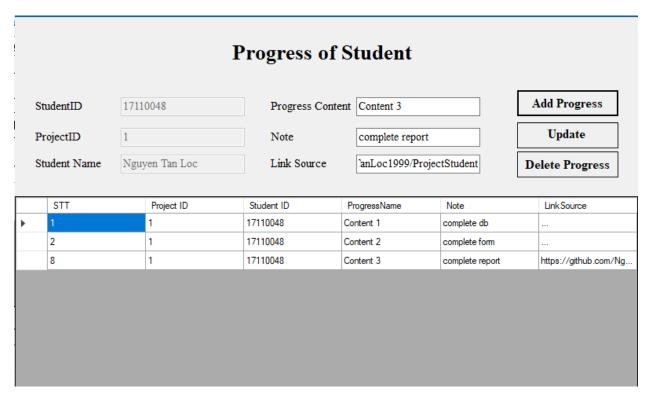


Figure 29: Test 22

Update 1 Progress

I will change the note of the project id 1 from complete db to update change link source

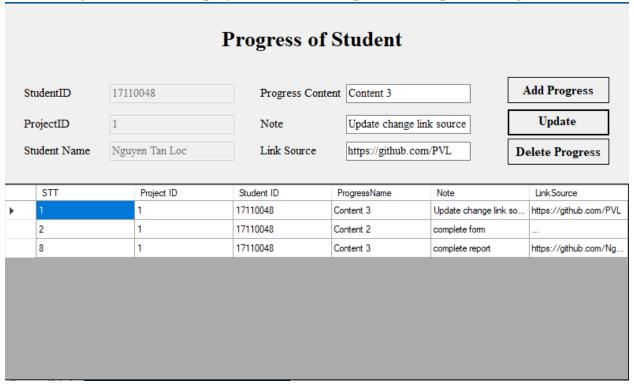


Figure 30: Test 23

Delete 1 Progress I will delete the progress name Content3, STT: 1 Before Delete

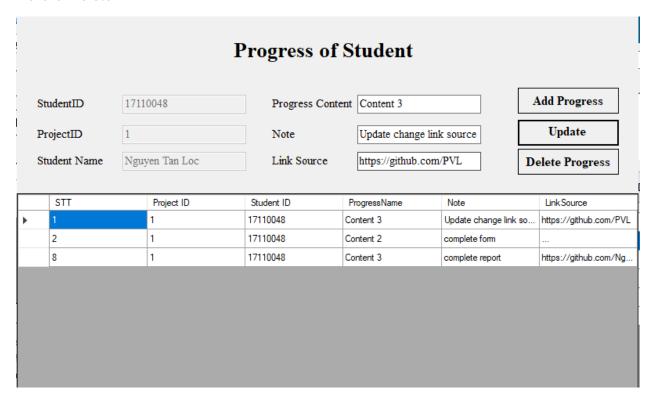


Figure 31: Test 24

After Delete **Progress of Student** Add Progress StudentID 17110048 Progress Content | Content 3 Update ProjectID Note Update change link source Link Source Student Name Nguyen Tan Loc https://github.com/PVL **Delete Progress** STT Project ID Student ID LinkSource ProgressName Note 17110048 Content 2 complete form 8 17110048 Content 3 https://github.com/Ng.. complete report

Figure 32: Test 25

The progress have STT:1 is deleted

Chapter 5: Conclusion and Development Direction

5.1 Conclusion

Basically, the team commented that its software solved 95% of the requirements set by the project. Following are the advantages and disadvantages of the software:

- Advantages:

The interface is neat, accessible, and easy to get acquainted.

Capacity quite light

The program consumes very little system resources when operating.

The program runs stably, gives accurate results, does not crash in the process of executing user requests.

- Disadvantages:

Hard to use LinQ

Lack of Report in part Requirements

5.2 Development Direction

- Write more function Report in part Requirements
- Write more function which can show all the project of any student/lecture in 1 course

Reference

- We used the knowledge Mr. Phung taught to complete the project
- There are references sql query on google.com
- The specifically is on the website: stackoverflow.com