



DOCUMENT USER GUIDE AND INSTALL

**SYSTEM
MANAGEMENT
CERTIFICATE**



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1. Introduction

1.1 ABC Center Certificate.

The ABC Center Certificate is a center works for the "ABC" institute to developing the certification system for the students who have completed the exam. For each student who go to the "ABC" institute for register.

This Center have a lot of certificate. For example: English Certificate include A, B, C, and TOIEC...

ABC Center Certificate main missions is providing regular contests for students. Students can registration at ministry room but before that student can find out about the information the certificate, they want to registry like Certificate ID, all subject they must pass to receive the certificate. After learning about information, the student receives studentID this ID will be confidential, so it won't be exposed to protect information of student. But if student ID have been lost or delete it still can recuperate because all the information always saves on the database of center.

1.2 Member of group two.

Members	Role and Responsibilities	Contact
Nghi Dang Quang	Leader/ Analyst/ Designer/ Developer/Tester/ Implementation	dqnghia18086@cusc.ctu.edu.vn
Khanh Nguyen Le	Analyst/Implementation/ Developer/ Tester	nlkhanha18083@cusc.ctu.edu.vn
Thang To Toan	Analyst/Designer/ Developer/ Tester	ttthanga18075@cusc.ctu.edu.vn
Thanh Nguyen Phuoc	Analyst/Implementation/ Developer/ Tester	npthanhha18141@cusc.ctu.edu.vn

2. Install Database.

2.1 Overview database.

Database is collection of interrelated data where data can be easily accessed, managed and updated. For example, consider ABC institute maintains details of the student such as name of the student, age, address, class etc. These all records are related with student stored in a database.

Database management System is collection of data and set of programs to access the data. It allows creation, definition and manipulation of database. DBMS provides protection and security to database. Some examples for popular DBMS are MySQL, Oracle, Sybase, Microsoft Access and IBM DB2. But this System just run only on SQL Server.

2.2 Setup User login with TCP/IP SQL Server.

2.2.1 Reset SQL password

- Step 1: Login into SQL Server

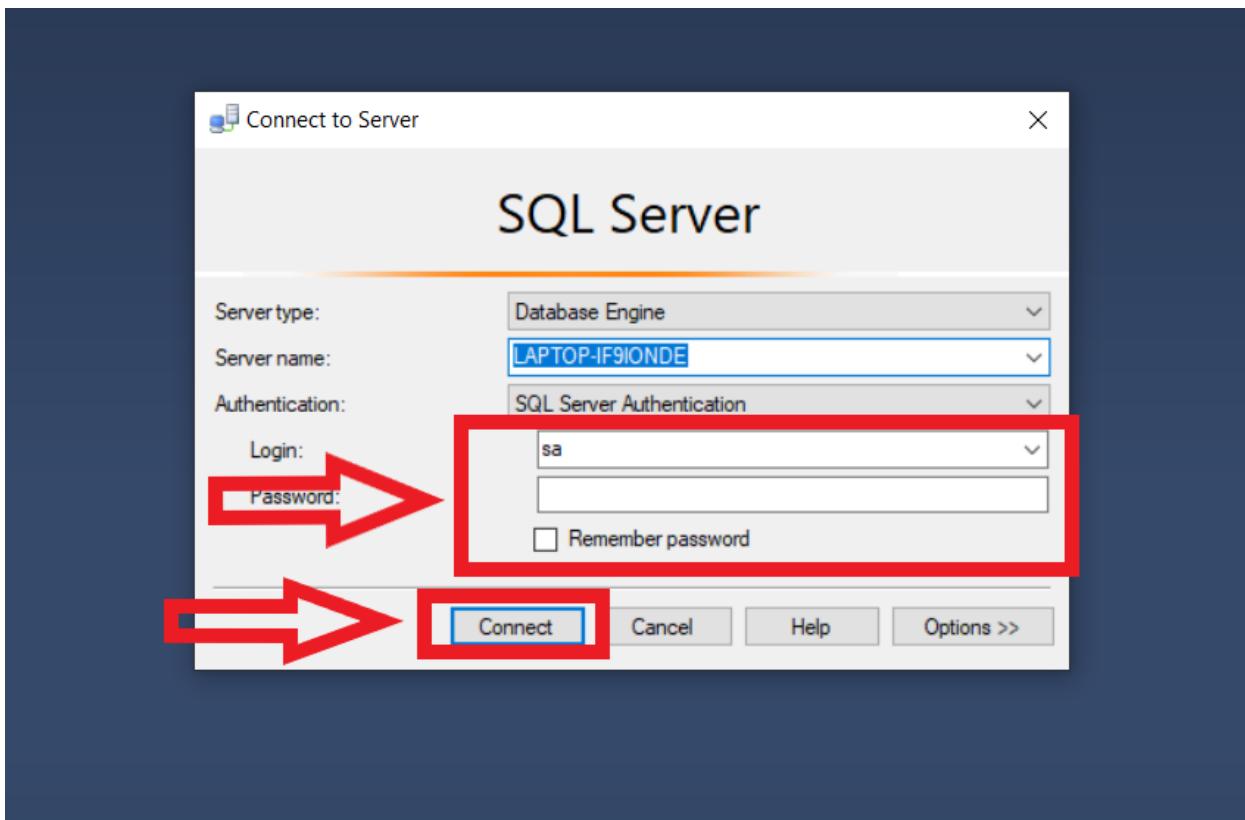


Figure 2.1: Login Sql Server

- Step 2: In Object Explorer, open Security folder and open Logins folder. Right click on SA account and go to Properties.

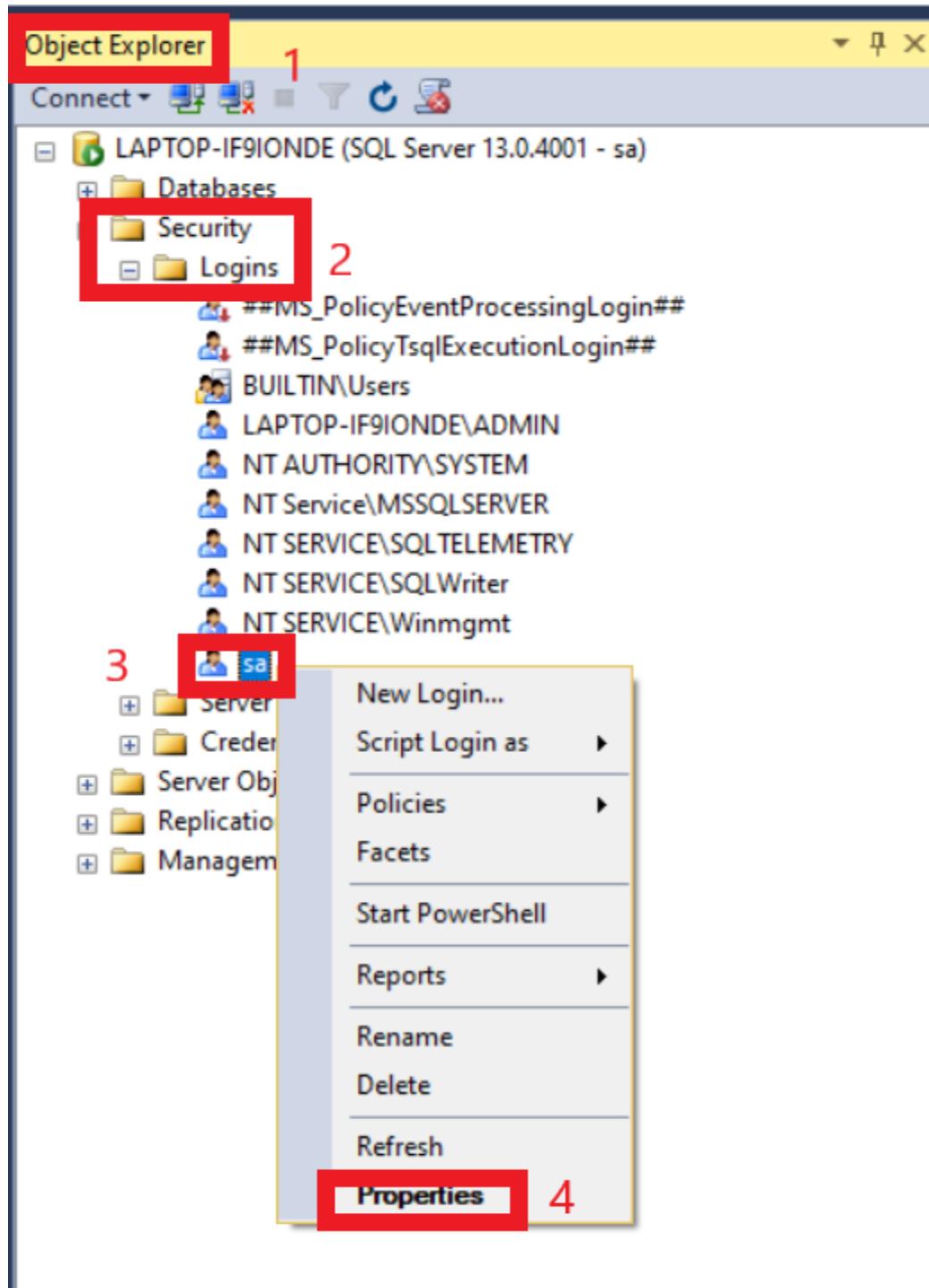


Figure 2.2: Properties account SA

- Step 3: Change SA password and confirm it. Click OK.

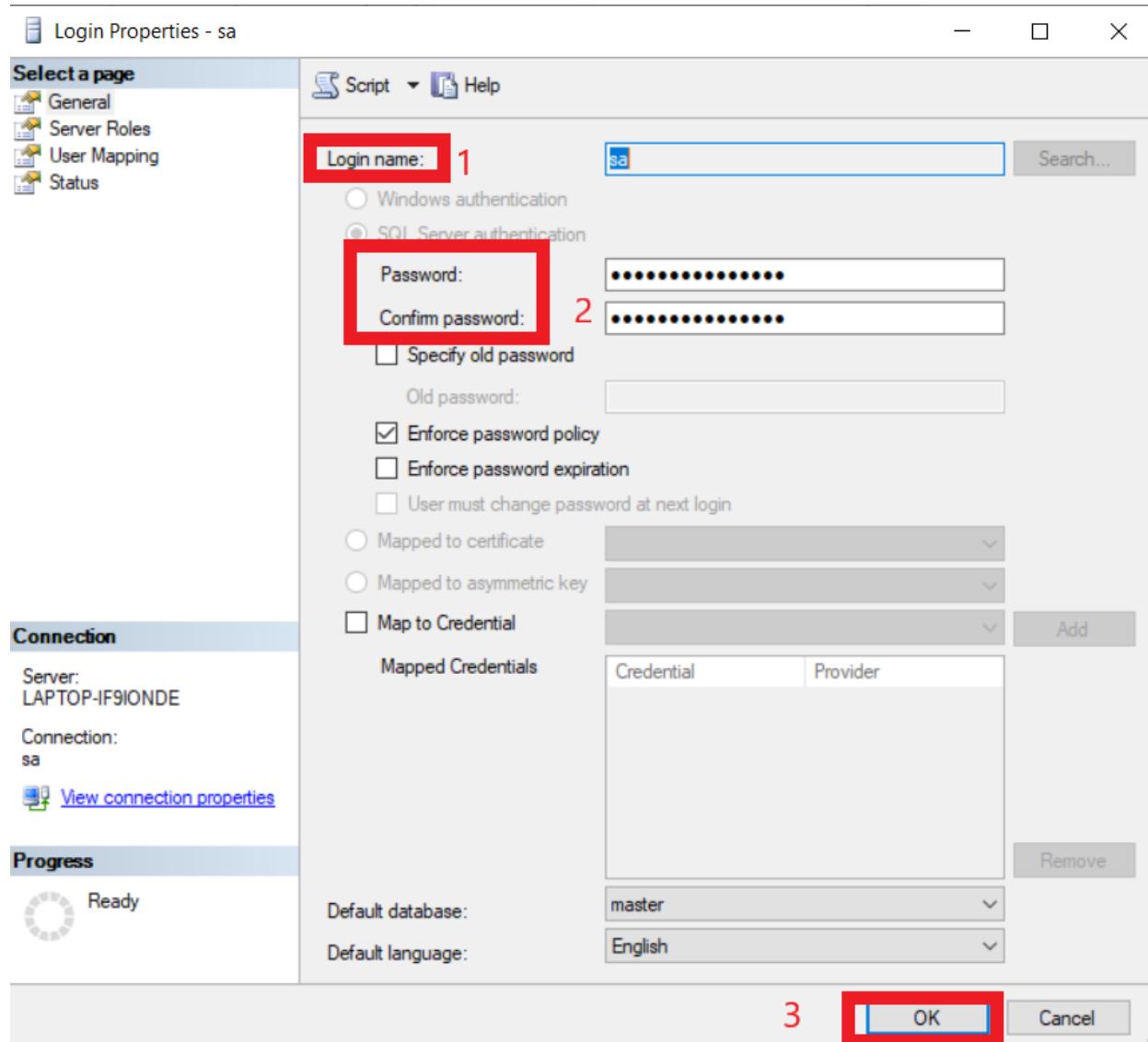


Figure 2.3: Change password SQL server

2.2.2 Config SQL server

- Step 1: On Start menu click mouse right choose Computer Management

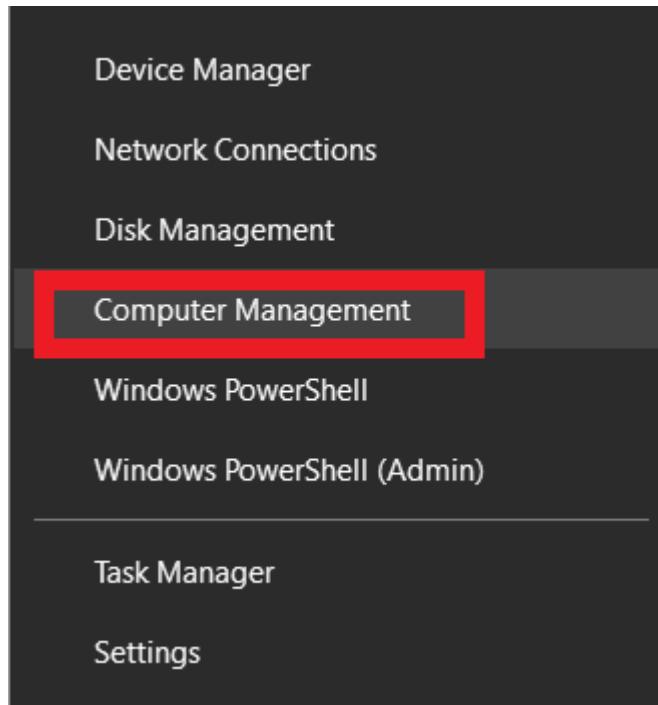


Figure 2.1: Choose Computer Management

- Step 2: In the interface of computer management select Server and Application.

After selecting Server and Application continue select SQL Server activate.



Figure 2.2: Back group of Computer Management

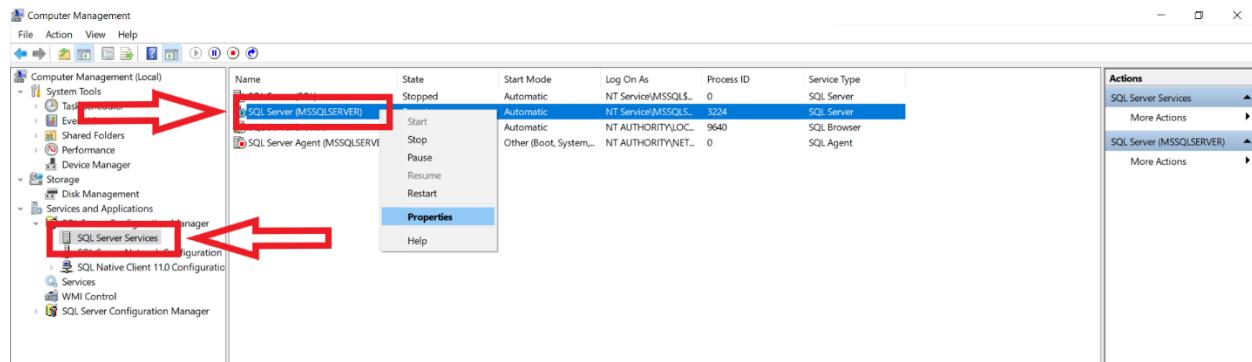


Figure 2.3: Configuration SQL Server Services

- Step 3: In Service and Applications select Protocol for MSSQLSERVER

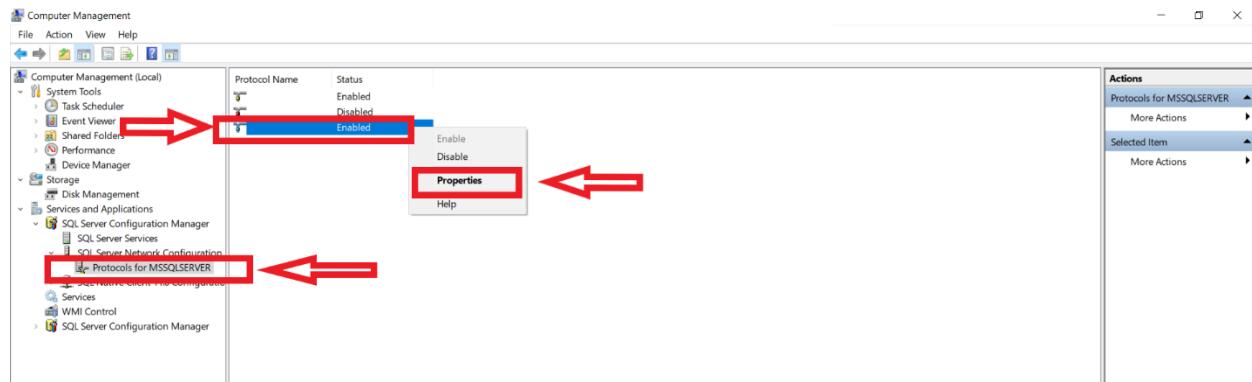


Figure 2.4: Configuration TCP/IP

Select Protocol and continue choose “Yes”.

After Click the button “APPLY” and finally click the button “OK”.

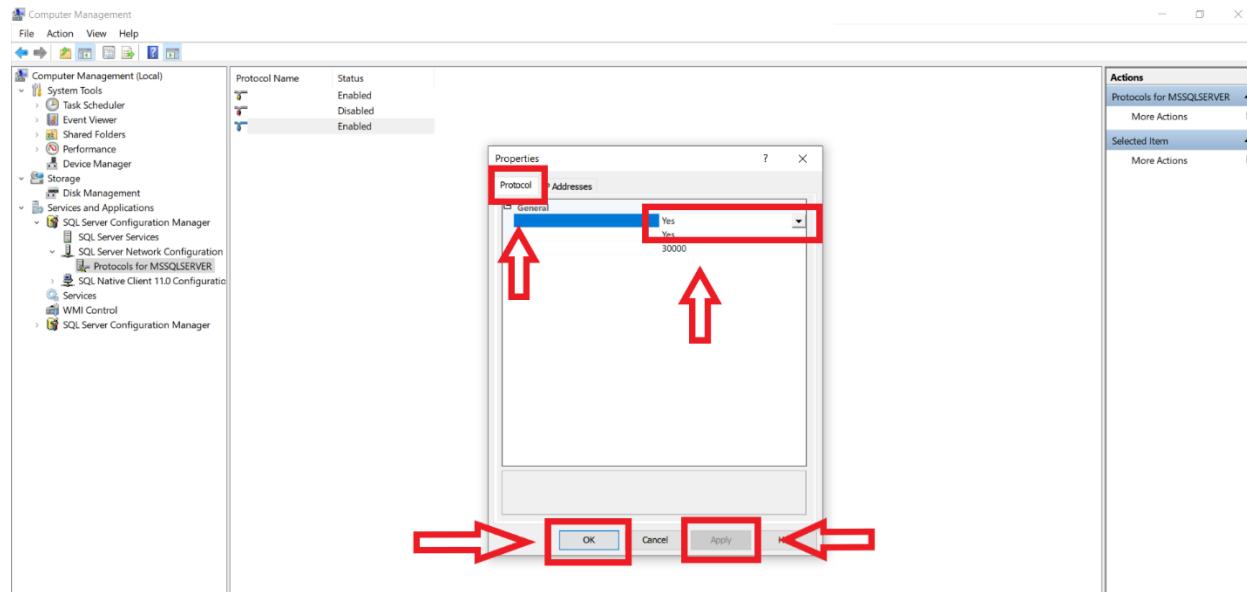


Figure 2.5: Configuration of Properties Protocol

Select IP Address and continue choose “Yes” (Same Figure 2.6).

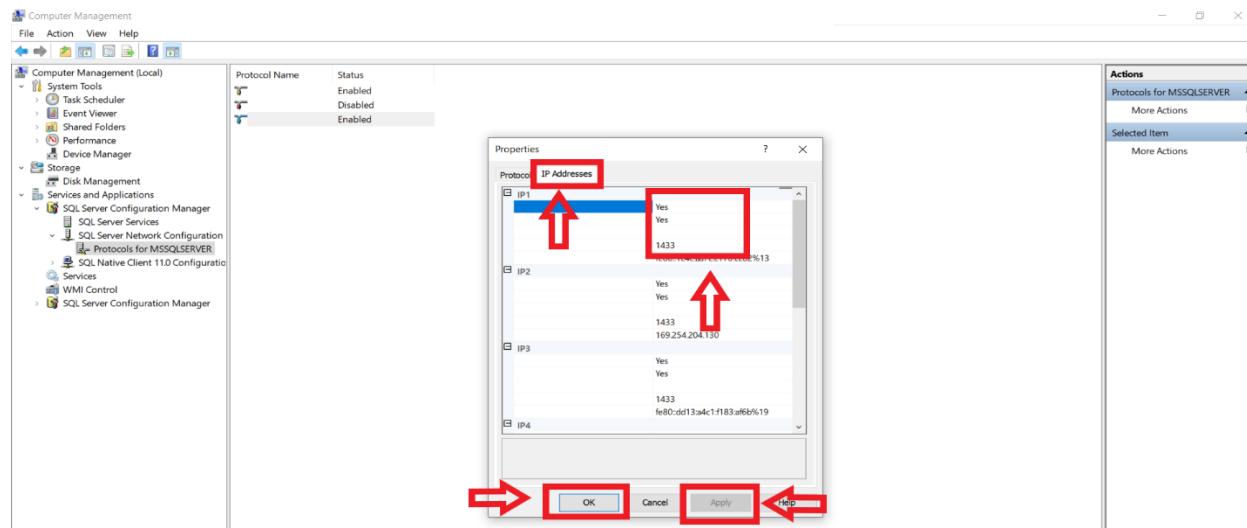


Figure 2.6: Configuration of Properties IP Address

2.2.3 Create User SQL Login

- Step1: On Start menu select Microsoft SQL Server Management

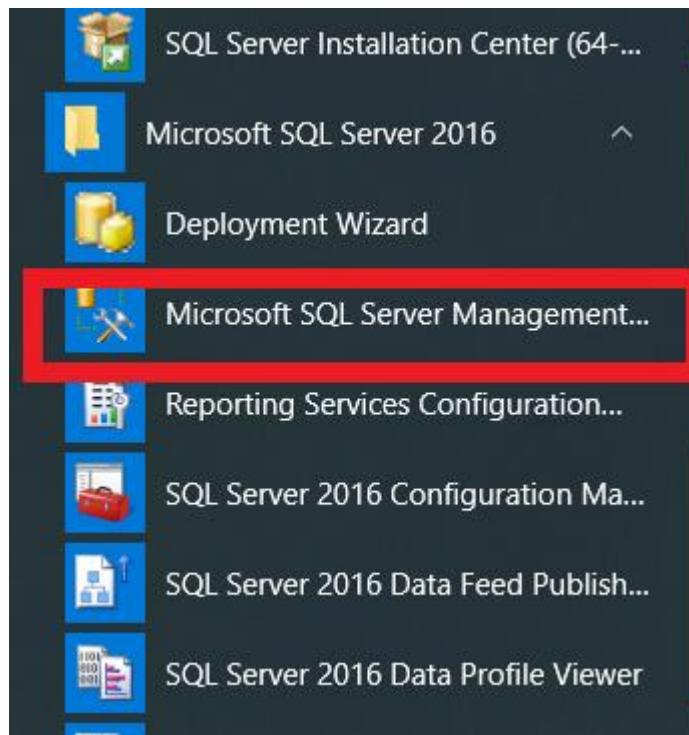


Figure 2.7: Select Microsoft SQL Server Management

- Step 2: Display form connect to server.
Enter login and password continue click the button “CONNECT” (same figure 2.8).
After connecting to server successful display back group of SQL Server (same figure 2.9).

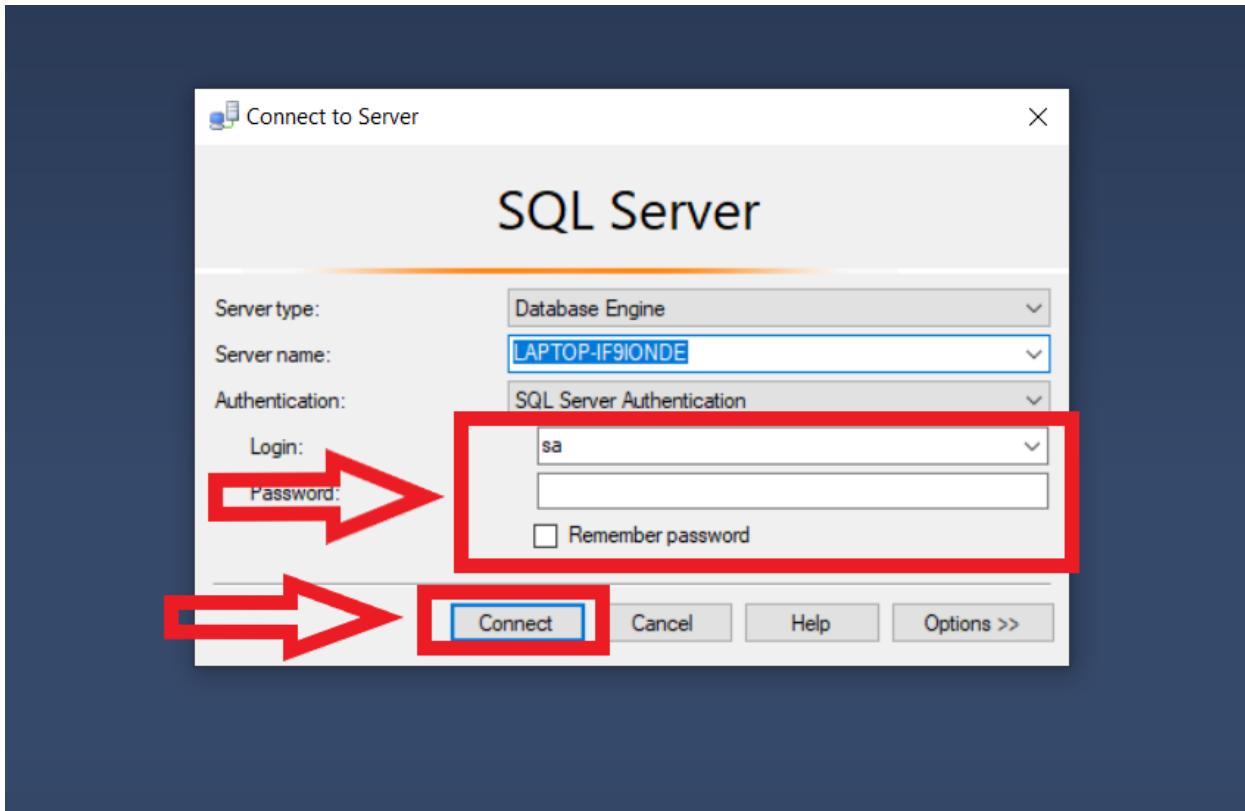


Figure 2.8: Connect to SQL Server

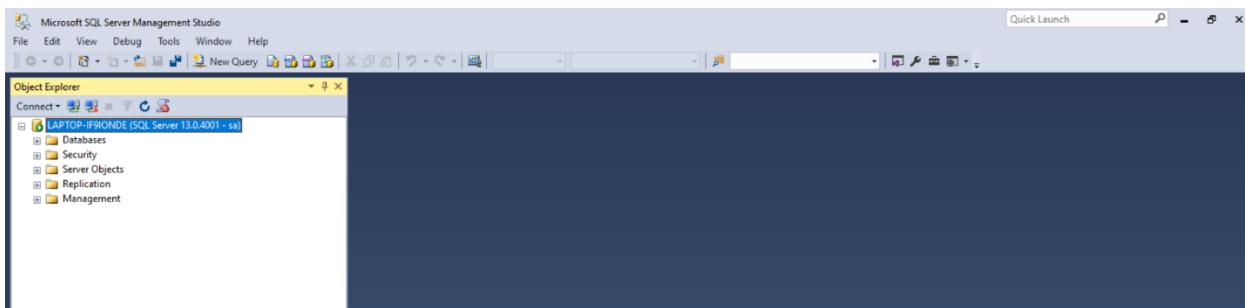


Figure 2.9: Back group of SQL Server

2.3 Create Database

```
CREATE DATABASE DBTEST_CER  
GO  
USE DBTEST_CER  
GO
```

Figure 2.10: Example code create database

2.3.1 Create Table, Constant

```

CREATE TABLE USERS(
    USERS_ID VARCHAR(20) PRIMARY KEY,
    USERNAME NVARCHAR(40) NOT NULL,
    PASSWORDS NVARCHAR(40) NOT NULL,
    FULLNAME NVARCHAR(100) NOT NULL,
    GENDER NVARCHAR(10) NOT NULL,
    DOB DATE NOT NULL,
    PHONE VARCHAR(20) NOT NULL,
    EMAIL NVARCHAR(40) NOT NULL,
    ROLES NVARCHAR(40) NOT NULL,
    USERS_ADD NVARCHAR(100) NOT NULL,
    --CONSTRAINT CHECK_DOB CHECK(CONVERT(DATE,DOB,101) <= CONVERT(DATE,(GETDATE()-5475),101))
    --CONSTRAINT CHECK_DOB CHECK(DATEDIFF(YEAR,CONVERT(DATE,DOB,101), GETDATE()) = 15)
    --CONSTRAINT CHECK_DOB_USER CHECK(YEAR(CONVERT(VARCHAR(32),DOB,101)) <= YEAR(GETDATE())-24)
)
GO

```

Figure 2.11: Example code create table, constant

2.3.2 Insert Table

```

--(USERS_ID,USERNAME,PASSWORDS,FULLNAME,GENDER,DOB,PHONE,EMAIL,USERS_ADD)
INSERT [dbo].[USERS]([USERS_ID],[USERNAME], [PASSWORDS], [FULLNAME], [GENDER], [DOB], [PHONE], [EMAIL], [ROLES], [USERS_ADD])
VALUES(N'US1', N'DQNGHI', N'12345', N'NGHIA DANG QUANG', N'FEMALE', N'1988-01-13', 1456789, N'DQNGHI26@GMAIL.COM',N'Admin', N'CAN THO')
INSERT INTO USERS VALUES(N'US2','NLKHANH','12345','KHANH NGUYEN LE','FEMALE','12/03/1990',123456789,'NLKHANH@GMAIL.COM',N'Keeper', N'CAN THO')
INSERT INTO USERS VALUES(N'US3','TTTHANG','12345','THANG TO TOAN','MALE','12/03/1990',123456789,'TTTHANG@GMAIL.COM',N'Keeper', N'CAN THO')
INSERT INTO USERS VALUES(N'US4','NPTHANH','12345','THANH NGUYEN PHUC','FEMALE','12/03/1990',123456789,'NPTHANH@GMAIL.COM',N'Admin', N'CAN THO')
GO

```

Figure 2.12: Example code insert table

2.3.3 Create PROC

```

CREATE PROC sp_USERS_identityID
AS
BEGIN
    DECLARE @UID NVARCHAR(20)
    DECLARE @max INT
    SELECT @max=COUNT(USERS_ID)+1 FROM USERS WHERE USERS_ID LIKE 'US'
    SET @UID= 'US' + RIGHT('' + CAST( @max AS NVARCHAR(10)),10)
    WHILE(EXISTS(SELECT USERS_ID FROM USERS WHERE USERS_ID=@UID))
    BEGIN
        SET @max=@max+1
        SET @UID='US'+ RIGHT('' + CAST( @max AS NVARCHAR(10)),10)
    END
    SELECT @UID
END
GO

```

Figure 2.13: Example code create PROC

2.3.4 Update Table, Column

```
UPDATE STUDENT_CER  
SET STUDENT_CER.RESULT=NULL
```

Figure 2.14: Example code update table, column

2.3.5 Delete Table, Column

```
DELETE FROM USERS  
WHERE USERS_ID = 'US1'
```

Figure 2.15: Example code delete table, column

→ Open files



DB_CERTIFICATE_26_11.sql 11/26/2019 10:01 ... Microsoft SQL Ser... 23 KB

And then CTRL + A and press key F5 or choose 

→ Restore a database on SQL Server using *.mdf, *.ldf and *.ndf files.

Using Enterprise Manager:

- Expand the registered SQL server
- Right-click Databases, select All Tasks -> Attach Database...
- Click the "..." button to browse for the *.mdf file
- Highlight the necessary *.mdf file and click OK
- Click OK again
- The database will now show up in Enterprise Manager

OR

- detach the database (right click the database and click Detach)
- copy the *.mdf and *.ldf files to your backup location
- attach the database (right click Databases and click Attach)

This is the path where you will find MDF file:

C:\Program Files\Microsoft SQL
Server\MSSQL13.SQLEXPRESS\MSSQL\DATA

→ Backup database

- ➔ Open SQL Server Management Studio Express and connect to the SQL server.
- ➔ Expand **Databases**.
- ➔ Right-click on the database you want to back up, then select **Tasks > Back up**.
(This is not available for version 2018/2019)
- ➔ On the Back up Database window, make sure the **Database** field contains the name of the database you want to back up.
- ➔ Select the **Backup Type**. By default, it is **Full** - leave it set to that.
- ➔ Click **Remove** to remove the default/last backup file name.
- ➔ Click **Add** to open the Select Backup Destination window.
- ➔ Click [...] next to the File Name field.
- ➔ On the Locate Database Files window, select the folder where you want to backup file to go. By default, it is ...|Microsoft SQL Server|MSSQL.1|MSSQL\Backup.
- ➔ In the **File Name** field, type the name for this backup, with a *.bak extension. For example, **xyz_20080221.bak** for a backup of the XYZ database created on 21 February 2008.
- ➔ Click **OK** to close the Locate Database Files window.
- ➔ Click **OK** to close the Select Backup Destination window.
- ➔ Click **OK** to start the backup. The progress icon displays in the lower left corner, and a ‘completed successfully’ message displays when it’s done.

3. Install Software Certificate:

- Step 1: Download file setup

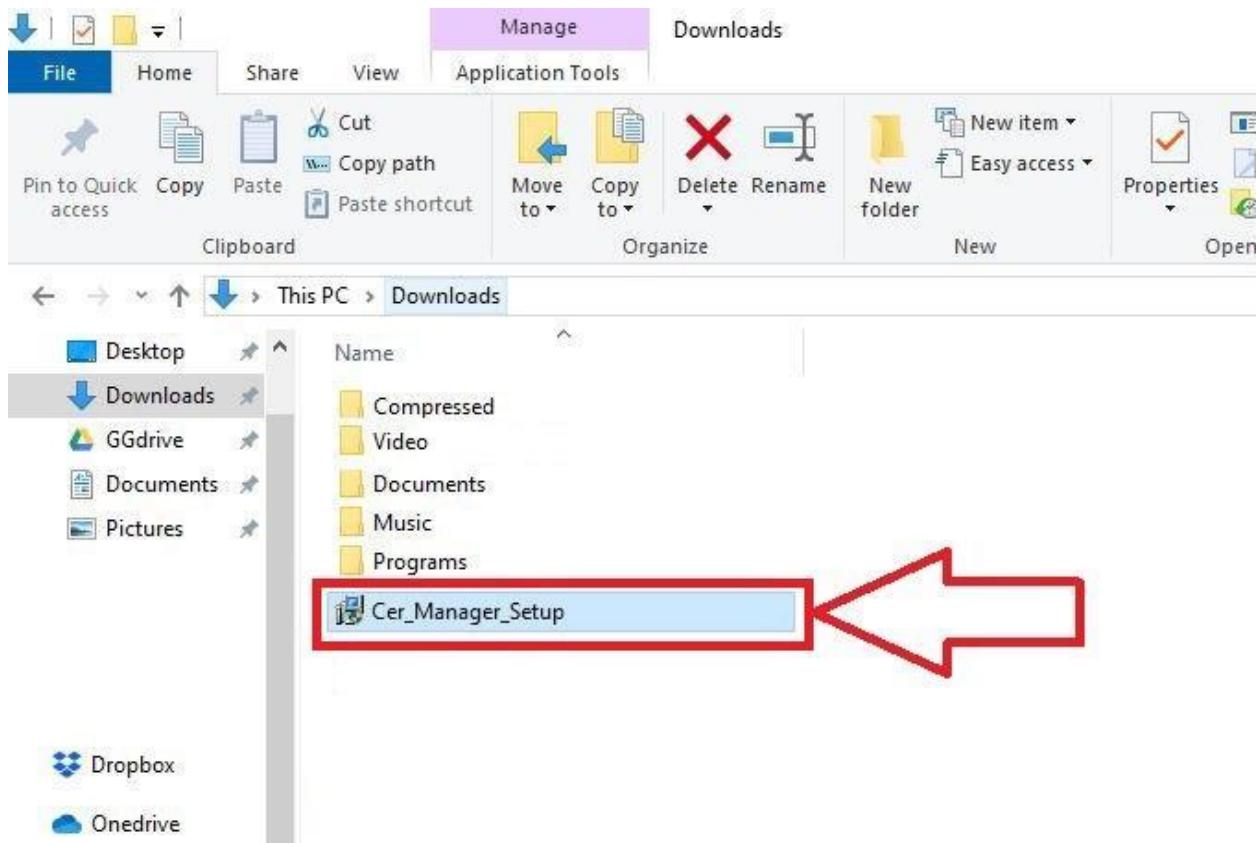


Figure 3.1: Click on file “Cer_Manager_Setup”

- Step 2: Install file setup.

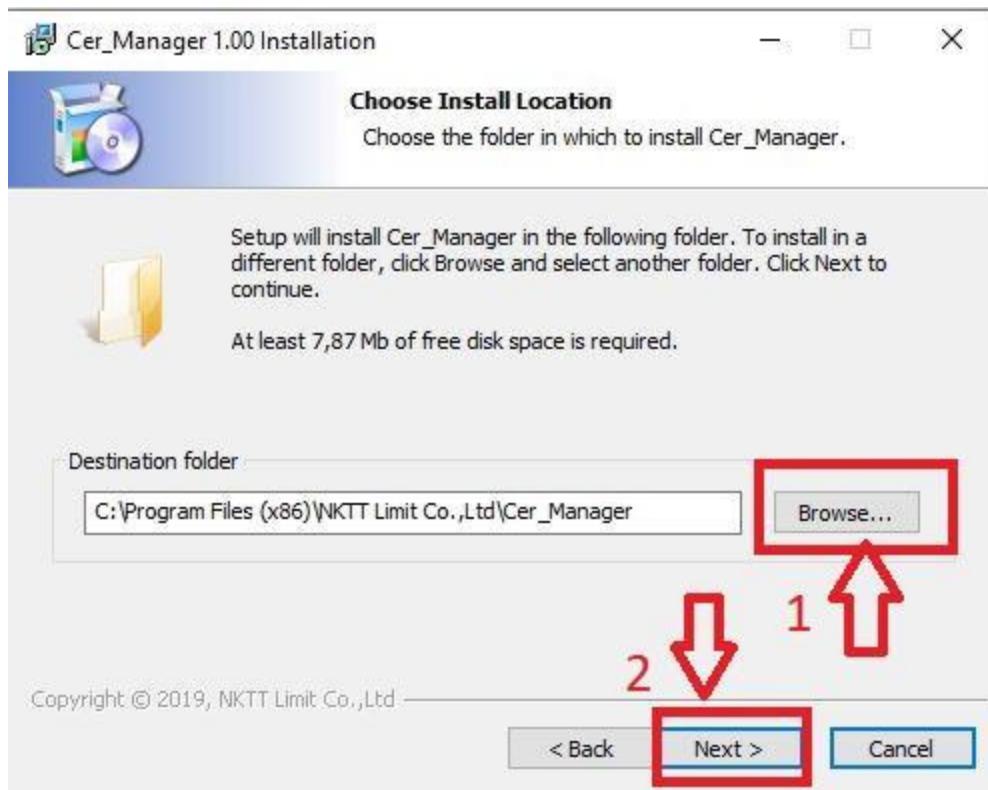


Figure 3.2: Step 1 of install the setup and click the button “Next”

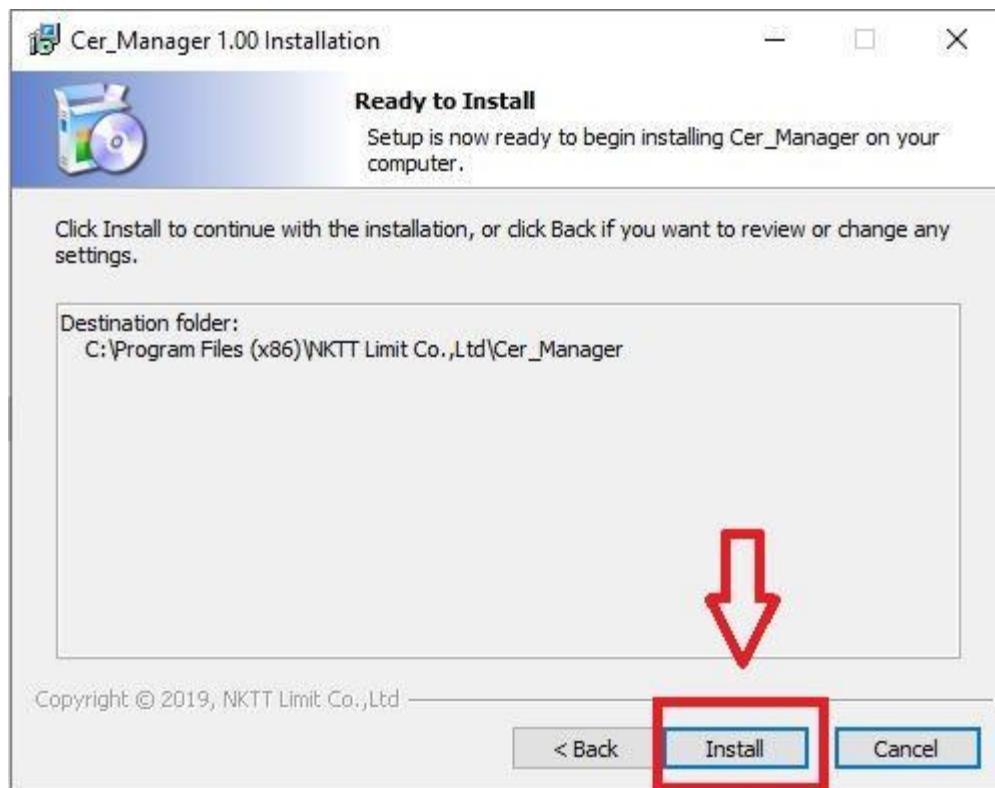


Figure 3.3: Click the button “Install”



Figure 3.4: Click the button “Next”



Figure 3.5: The finish install setup

- **Step 3: Open the saved folder during installation**

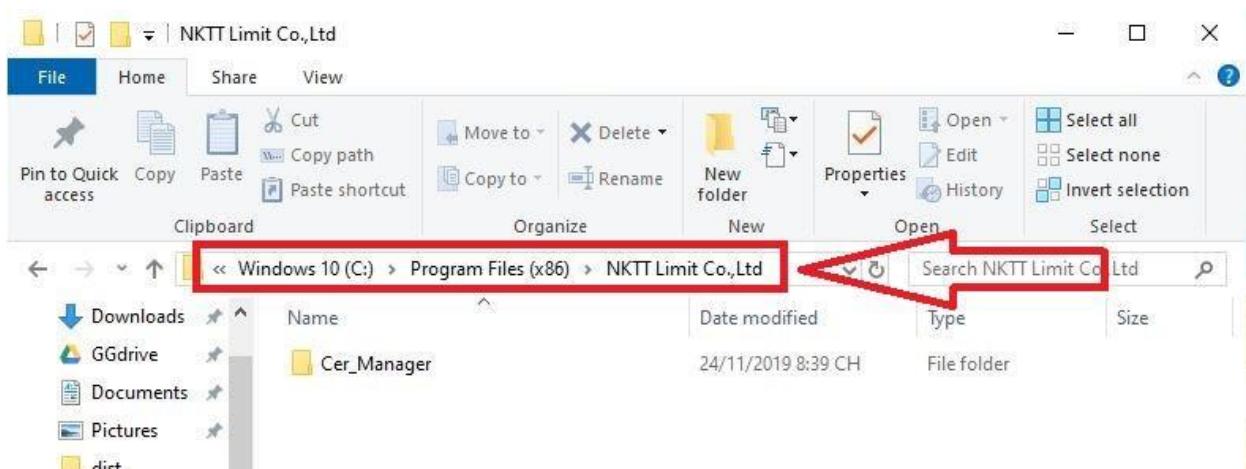


Figure 3.6: Click the folder

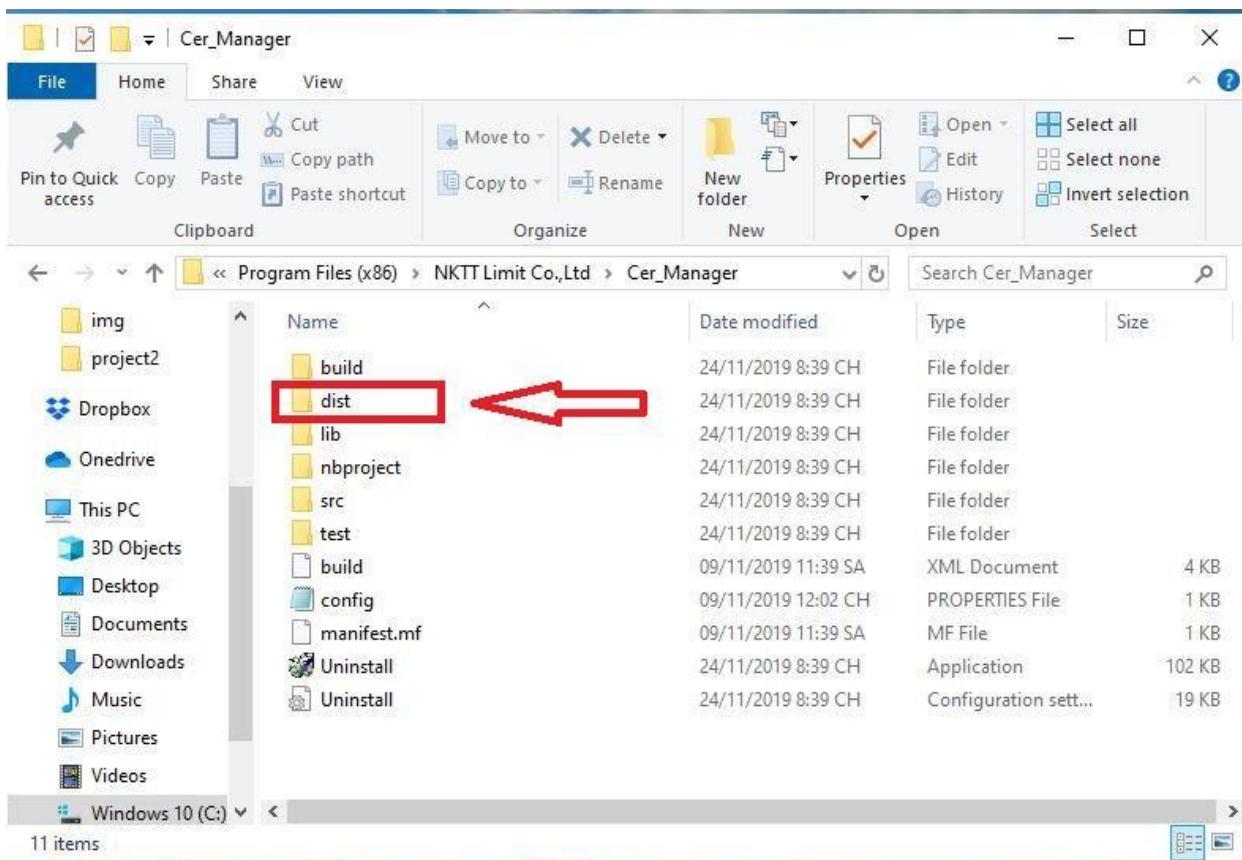


Figure 3.7: On folder “Cer_Manager” . Next click the folder “dist”

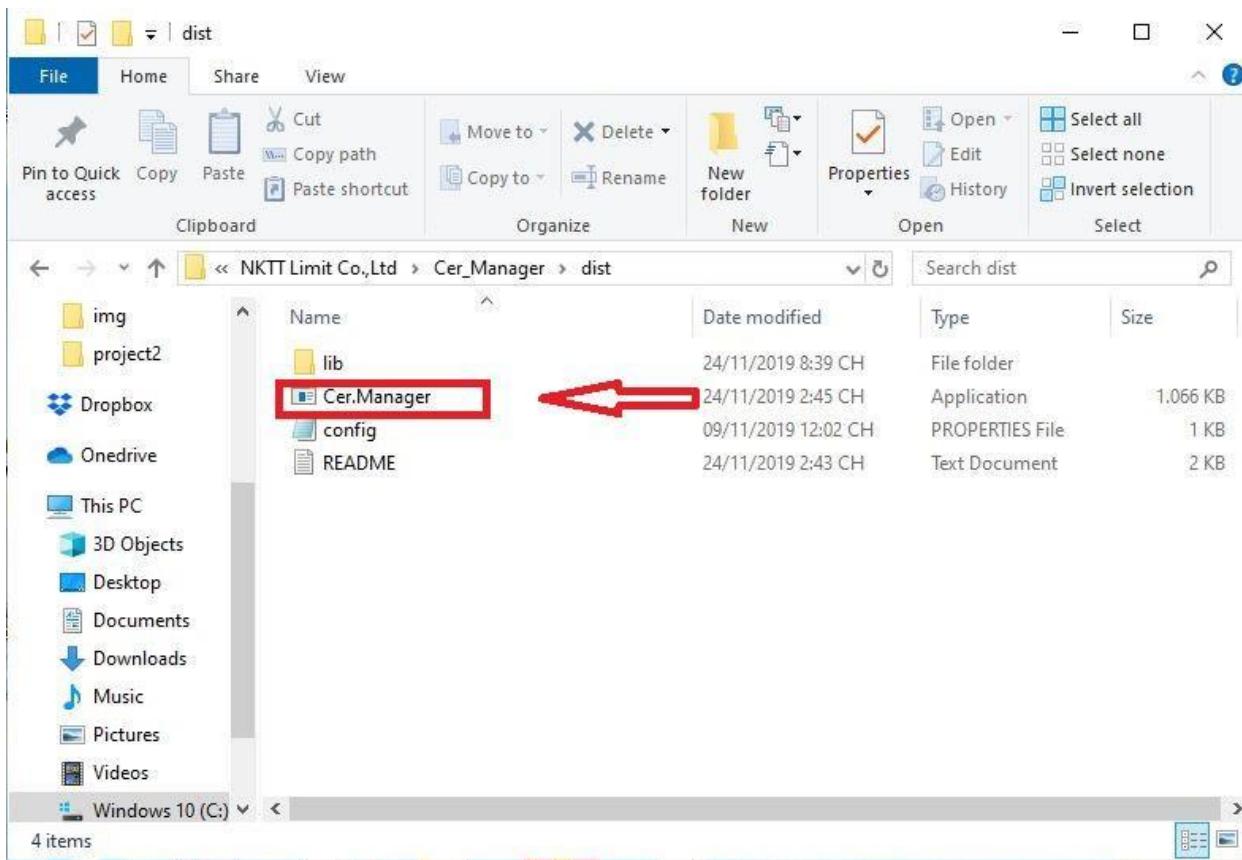


Figure 3.8: On the folder “dist” . Click on the file “Cer.Manager” and Run application

4. How to Management System

4.1 Management Users

- Step 1: Login connection with Database.

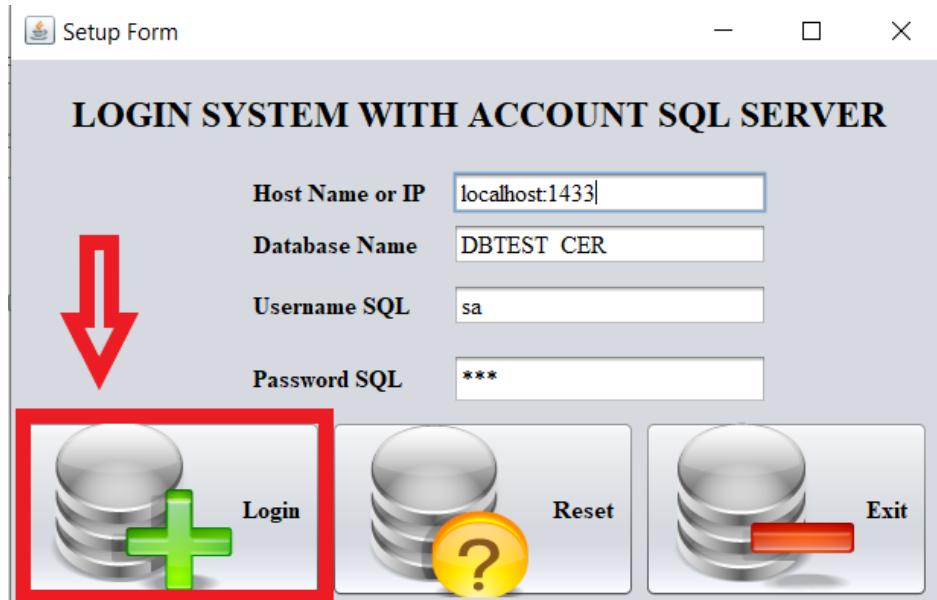


Figure 4.1: Form connect to Database

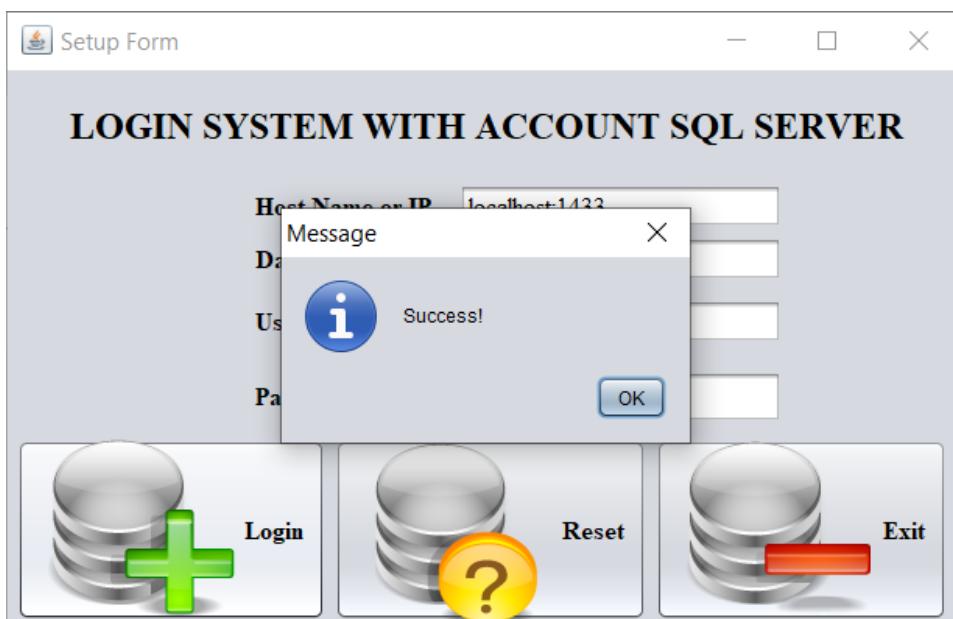


Figure 4.2: Form connect to database success

Step 2: Login username and password



Figure 4.3: Form login to system

- Step 3: Form system management certificate.



Figure 4.4: Form main of system management certificate

4.2 Management Student

- Step 1: In form system management certificate. Click the button “Management Student”

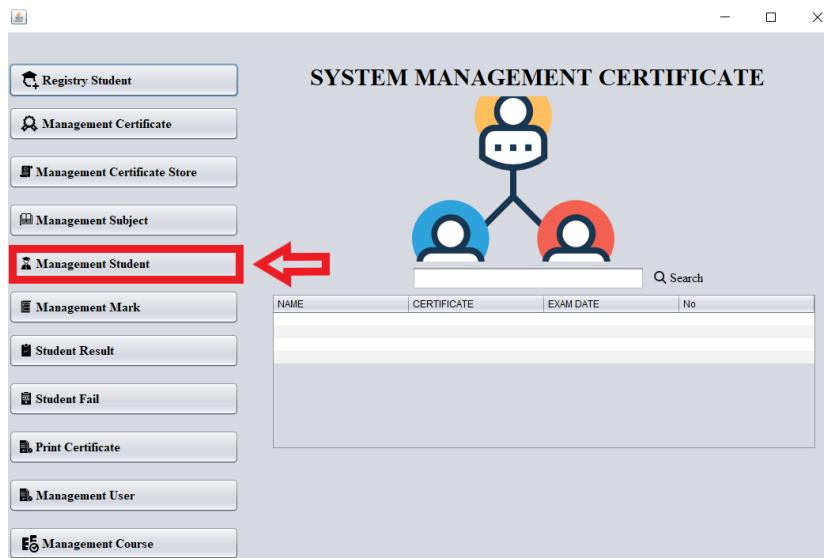


Figure 4.5: Click the button “Management Student”

- Step 2: Display Form Management Student

The screenshot shows a Windows application window titled "Management Student". At the top, there are fields for "Student ID" (STU11...), gender selection (Male or Female), and "Date of Birth" (Nov 25, 2019). Below these are fields for "Student Name", "Identity Card", "Email", "Address", and "Phone". A toolbar at the bottom includes buttons for "+ Add", "Edit", "Delete", "Save", "Reset", "Report", and "Close". A scrollable table below the toolbar lists student information with columns for ID, Full name, Identity Card, Gender, DOB, Phone, Email, and Address.

ID Student	Full name	Identity Card	Gender	DOB	Phone	Email	Address
STU1	Le Van Quyet	302980780	Male	1990-12-12	905682594	quyet@gmail.com	Can Tho
STU10	Nguyen Thi Loi	626384729	Male	1994-12-07	905682603	loi@gmail.com	Tra Vinh
STU2	Nguyen Thi Tam	890228465	Female	1991-01-01	905682595	tam@gmail.com	Vinh Long
STU3	Doan Van Chien	864536278	Male	1992-03-20	905682596	chien@gmail.com	Dong Thap
STU4	Tran Van Dau	837261538	Male	1993-04-23	905682597	dau@gmail.com	An Giang
STU5	Le Thi Chac	846362846	Female	1989-08-06	905682598	chac@gmail.com	Long An
STU6	Pham Van Chan	364826243	Male	1995-12-04	905682599	chan@gmail.com	Tien Giang
STU7	Pham Nhat	463528463	Female	1999-11-07	905682600	nhat@gmail.com	Ca Mau
STU8	Nguyen Khai Dinh	284634636	Male	2000-04-05	905682601	dinh@gmail.com	Bac Lieu
STU9	Ly Van Thang	636329367	Female	1996-08-09	905682602	thang@gmail.com	Soc Trang

Figure 4.6: Back group form “Management”

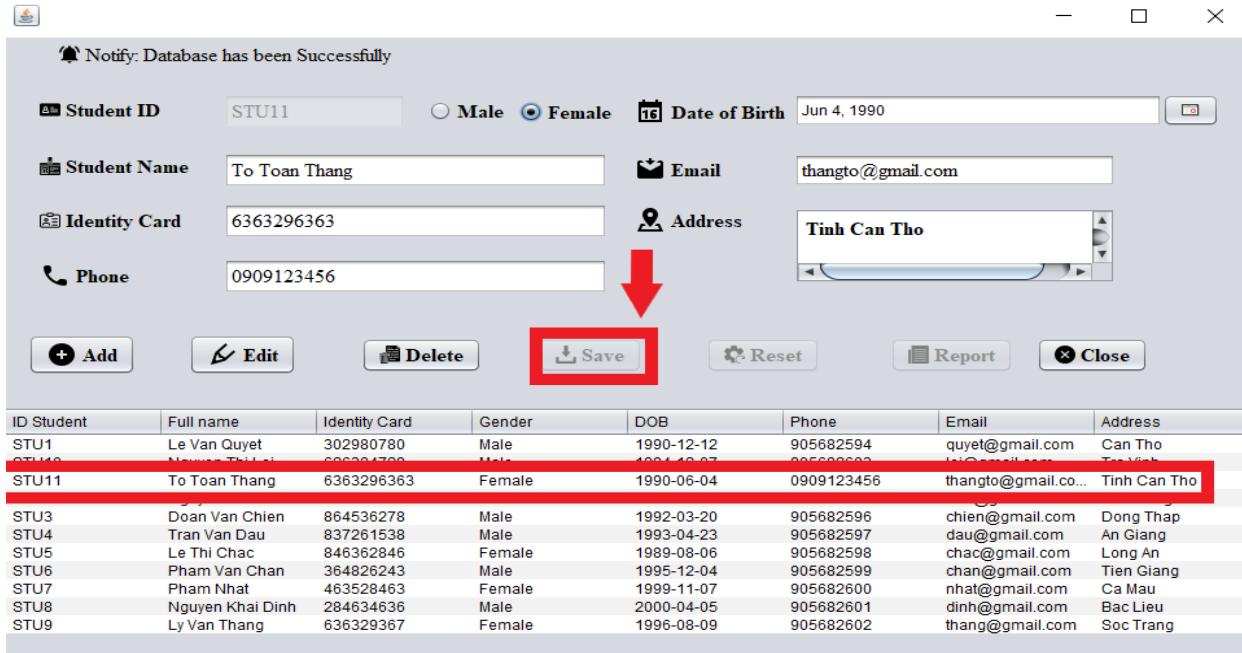
- Step 3: User want add information student

This screenshot is identical to Figure 4.6, showing the "Management Student" application. The red arrow points to the "+ Add" button in the toolbar, indicating where the user should click to add new student information.

ID Student	Full name	Identity Card	Gender	DOB	Phone	Email	Address
STU1	Le Van Quyet	302980780	Male	1990-12-12	905682594	quyet@gmail.com	Can Tho
STU10	Nguyen Thi Loi	626384729	Male	1994-12-07	905682603	loi@gmail.com	Tra Vinh
STU2	Nguyen Thi Tam	890228465	Female	1991-01-01	905682595	tam@gmail.com	Vinh Long
STU3	Doan Van Chien	864536278	Male	1992-03-20	905682596	chien@gmail.com	Dong Thap
STU4	Tran Van Dau	837261538	Male	1993-04-23	905682597	dau@gmail.com	An Giang
STU5	Le Thi Chac	846362846	Female	1989-08-06	905682598	chac@gmail.com	Long An
STU6	Pham Van Chan	364826243	Male	1995-12-04	905682599	chan@gmail.com	Tien Giang
STU7	Pham Nhat	463528463	Female	1999-11-07	905682600	nhat@gmail.com	Ca Mau
STU8	Nguyen Khai Dinh	284634636	Male	2000-04-05	905682601	dinh@gmail.com	Bac Lieu
STU9	Ly Van Thang	636329367	Female	1996-08-09	905682602	thang@gmail.com	Soc Trang

Figure 4.7: Click the button “Add” in Management Student

After clicking the button “Add”. Enter information student and clicking the button “Save”. Information display in the table.



The screenshot shows a Java Swing application window titled "Notify: Database has been Successfully". The window contains a form for adding a student with fields for Student ID (STU11), Gender (Female), Date of Birth (Jun 4, 1990), Student Name (To Toan Thang), Email (thangto@gmail.com), Identity Card (6363296363), Address (Tinh Can Tho), and Phone (0909123456). A red arrow points to the "Save" button, which is highlighted with a red border. Below the form is a table displaying student data:

ID Student	Full name	Identity Card	Gender	DOB	Phone	Email	Address
STU1	Le Van Quyet	302980780	Male	1990-12-12	905682594	quyet@gmail.com	Can Tho
STU12	Nguyen Thi Lan	6363294700	Male	1994-12-07	905680600	lan@gmail.com	Tra Vinh
STU11	To Toan Thang	6363296363	Female	1990-06-04	0909123456	thangto@gmail.co...	Tinh Can Tho
STU3	Doan Van Chien	864536278	Male	1992-03-20	905682596	chien@gmail.com	Dong Thap
STU4	Tran Van Dau	837261538	Male	1993-04-23	905682597	dau@gmail.com	An Giang
STU5	Le Thi Chac	846382846	Female	1989-08-06	905682598	chac@gmail.com	Long An
STU6	Pham Van Chan	364826243	Male	1995-12-04	905682599	chan@gmail.com	Tien Giang
STU7	Pham Nhat	463528463	Female	1999-11-07	905682600	nhat@gmail.com	Ca Mau
STU8	Nguyen Khai Dinh	284634636	Male	2000-04-05	905682601	dinh@gmail.com	Bac Lieu
STU9	Ly Van Thang	636329367	Female	1996-08-09	905682602	thang@gmail.com	Soc Trang

Figure 4.8: After clicking the button “Add”

Step 4: User want edit information student

ID Student	Full name	Identity Card	Gender	DOB	Phone	Email	Address
STU1	Le Van Quyet	302980780	Male	1990-12-12	905682594	quyet@gmail.com	Can Tho
STU10	Nguyen Thi Loi	626384729	Male	1994-12-07	905682603	loi@gmail.com	Tra Vinh
STU11	To Toan Thang	6363296363	Female	1990-06-04	0909123456	thangto@gmail.co...	Tinh Can Tho
STU2	Nguyen Thi Tam	890228465	Female	1991-01-01	905682595	tam@gmail.com	Vinh Long
STU3	Doan Van Chien	864536278	Male	1992-03-20	905682596	chien@gmail.com	Dong Thap
STU4	Tran Van Dau	837261538	Male	1993-04-23	905682597	dau@gmail.com	An Giang
STU5	Le Thi Chac	846362846	Female	1989-08-06	905682598	chac@gmail.com	Long An
STU6	Pham Van Chan	364826243	Male	1995-12-04	905682599	chan@gmail.com	Tien Giang
STU7	Pham Nhat	463528463	Female	1999-11-07	905682600	nhat@gmail.com	Ca Mau
STU8	Nguyen Khai Dinh	284634636	Male	2000-04-05	905682601	dinh@gmail.com	Bac Lieu
STU9	Ly Van Thang	636329367	Female	1996-08-09	905682602	thang@gmail.com	Soc Trang

Figure 4.9: Click the button “Edit” in Management Student

After clicking the button “Edit”. Enter information student want to edit and clicking the button “Save”. And display notify.

Notify: Database has been Successfully

ID Student	Full name	Identity Card	Gender	DOB	Phone	Email	Address
STU1	Le Van Quyet	302980780	Male	1990-12-12	905682594	quyet@gmail.com	Can Tho
STU10	Nguyen Thi Loi	626384729	Male	1994-12-07	905682603	loi@gmail.com	Tra Vinh
STU11	To Toan Thang	6363296363	Female	1990-06-04	0909123456	thangto@gmail.co...	Tinh Can Tho
STU2	Nguyen Thi Tam	890228465	Female	1991-01-01	905682595	tam@gmail.com	Vinh Long
STU3	Doan Van Chien	864536278	Male	1992-03-20	905682596	chien@gmail.com	Dong Thap
STU4	Tran Van Dau	837261538	Male	1993-04-23	905682597	dau@gmail.com	An Giang
STU5	Le Thi Chac	846362846	Female	1989-08-06	905682598	chac@gmail.com	Long An
STU6	Pham Van Chan	364826243	Male	1995-12-04	905682599	chan@gmail.com	Tien Giang
STU7	Pham Nhat	463528463	Female	1999-11-07	905682600	nhat@gmail.com	Ca Mau
STU8	Nguyen Khai Dinh	284634636	Male	2000-04-05	905682601	dinh@gmail.com	Bac Lieu
STU9	Ly Van Thang	636329367	Female	1996-08-09	905682602	thang@gmail.com	Soc Trang

Figure 4.10: After clicking the button “Edit” in Management Student

- Step 5: User want delete information student.

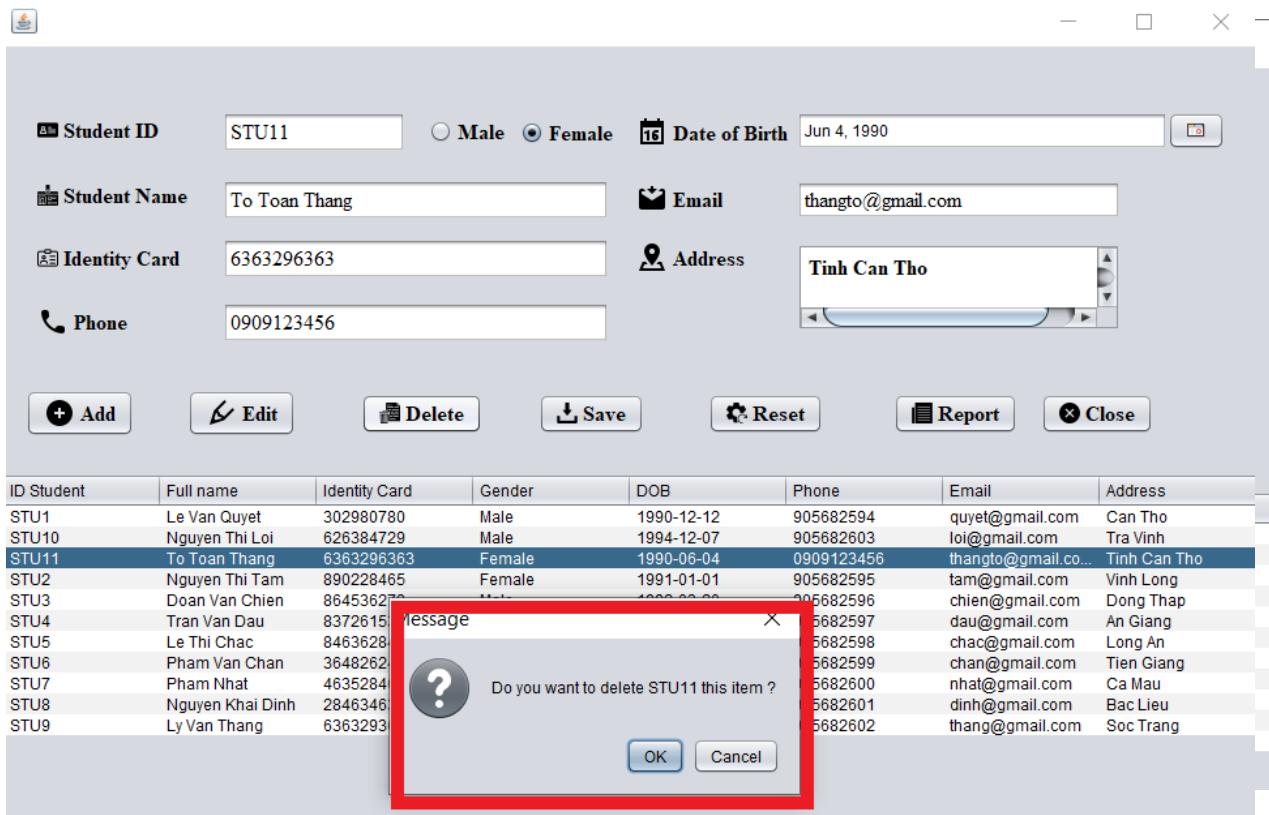


Figure 4.11: Click the button “Delete” in management student

After clicking the button “Delete”. Display message.
Click the button “OK” in message.

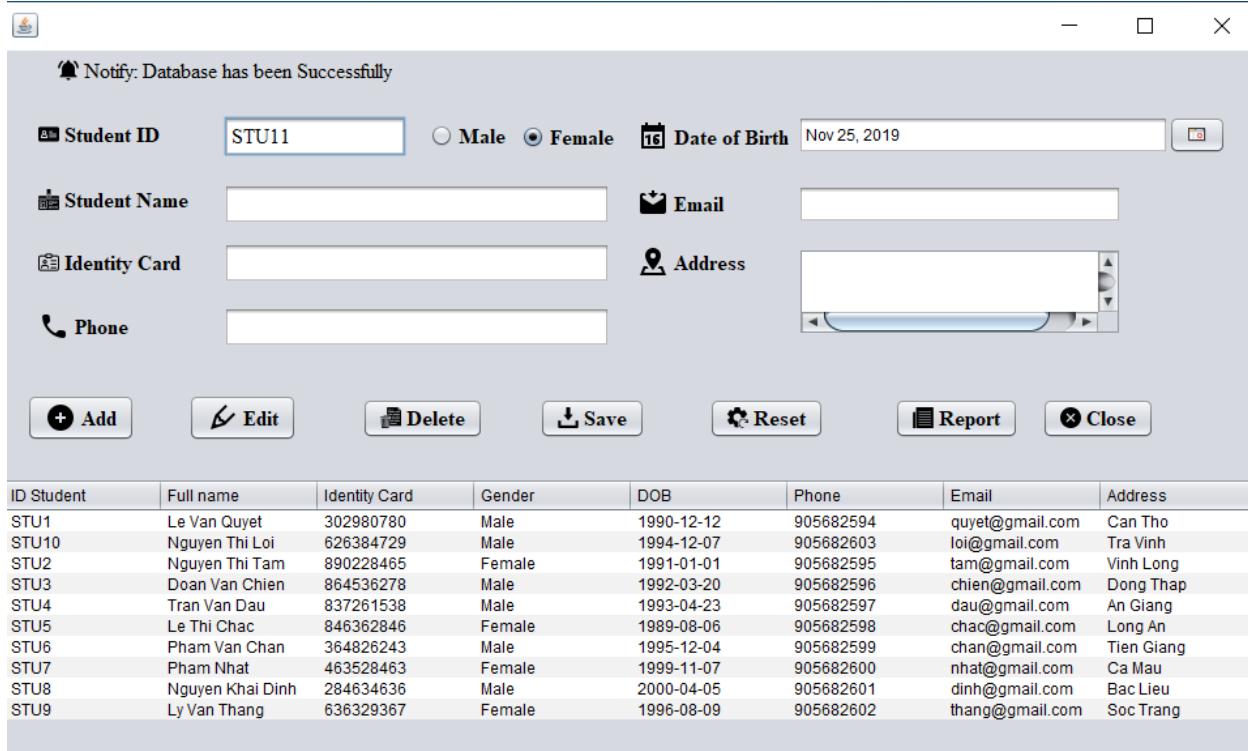


Figure 4.12: After clicking the button “Delete” in management student

Step 6: User want report information student.

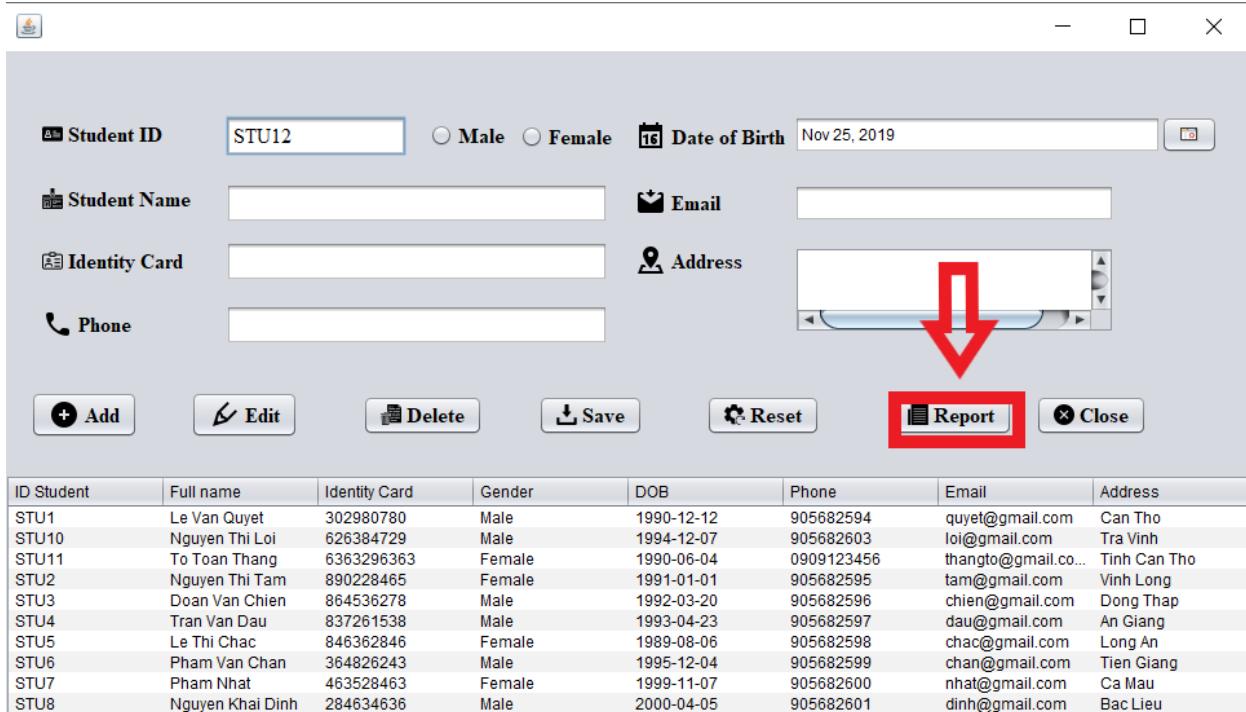


Figure 4.13: Clicking the button “Report” in management student

After clicking the button “Delete”. Display form report. Choose folder save, enter name. And click the button “Save”

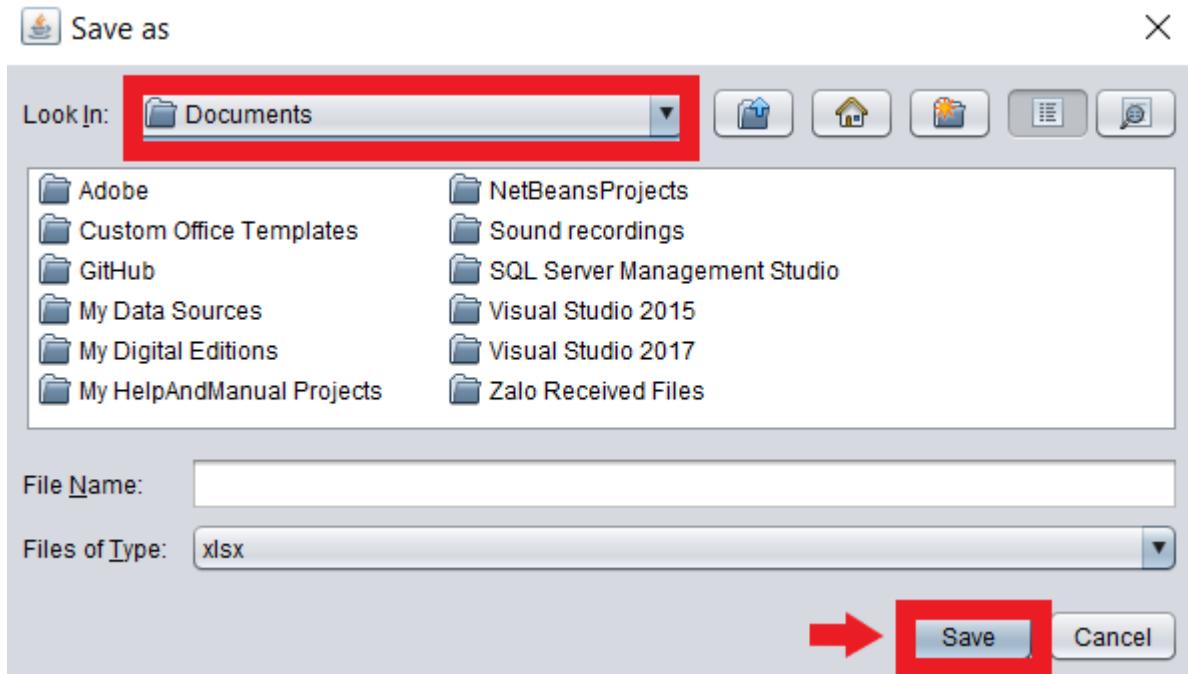


Figure 4.14: Report file

- Step 7: User want close form.

Click the button “Close” and back to form management main.

The screenshot shows a window titled 'Student Management'. At the top, there are fields for 'Student ID' (STU11), 'Gender' (Male), 'Date of Birth' (Nov 25, 2019), and several text input fields for 'Student Name', 'Identity Card', 'Address', and 'Phone'. Below these are buttons for '+ Add', 'Edit', 'Delete', 'Save', 'Reset', 'Report', and a red-bordered 'Close' button. A large table lists student details:

ID Student	Full name	Identity Card	Gender	DOB	Phone	Email	Address
STU1	Le Van Quyet	302980780	Male	1990-12-12	905682594	quyet@gmail.com	Can Tho
STU10	Nguyen Thi Loi	626384729	Male	1994-12-07	905682603	loi@gmail.com	Tra Vinh
STU2	Nguyen Thi Tam	890228465	Female	1991-01-01	905682595	tam@gmail.com	Vinh Long
STU3	Doan Van Chien	864536278	Male	1992-03-20	905682596	chien@gmail.com	Dong Thap
STU4	Tran Van Dau	837261538	Male	1993-04-23	905682597	dau@gmail.com	An Giang
STU5	Le Thi Chac	846362846	Female	1989-08-06	905682598	chac@gmail.com	Long An
STU6	Pham Van Chan	364826243	Male	1995-12-04	905682599	chan@gmail.com	Tien Giang
STU7	Pham Nhat	463528463	Female	1999-11-07	905682600	nhat@gmail.com	Ca Mau
STU8	Nguyen Khai Dinh	284634636	Male	2000-04-05	905682601	dinh@gmail.com	Bac Lieu
STU9	Ly Van Thang	636329367	Female	1996-08-09	905682602	thang@gmail.com	Soc Trang

Figure 4.15: Click the button “Close” in management student

The screenshot shows a window titled 'SYSTEM MANAGEMENT CERTIFICATE'. On the left is a vertical menu with buttons for 'Registry Student', 'Management Certificate', 'Management Certificate Store', 'Management Subject', 'Management Student', 'Management Mark', 'Student Result', 'Student Fail', 'Print Certificate', and 'Management User'. The main area features a logo of three stylized human figures (yellow, blue, and red) connected by lines. Below the logo is a search bar with the placeholder 'Search'. A table below the search bar has columns for 'NAME', 'CERTIFICATE', 'EXAM DATE', and 'No'.

Figure 4.16: Back to form System Management Certificate

4.3 Management Register of Student

- Step 1: In form system management certificate. Click the button “Management Register Student”.

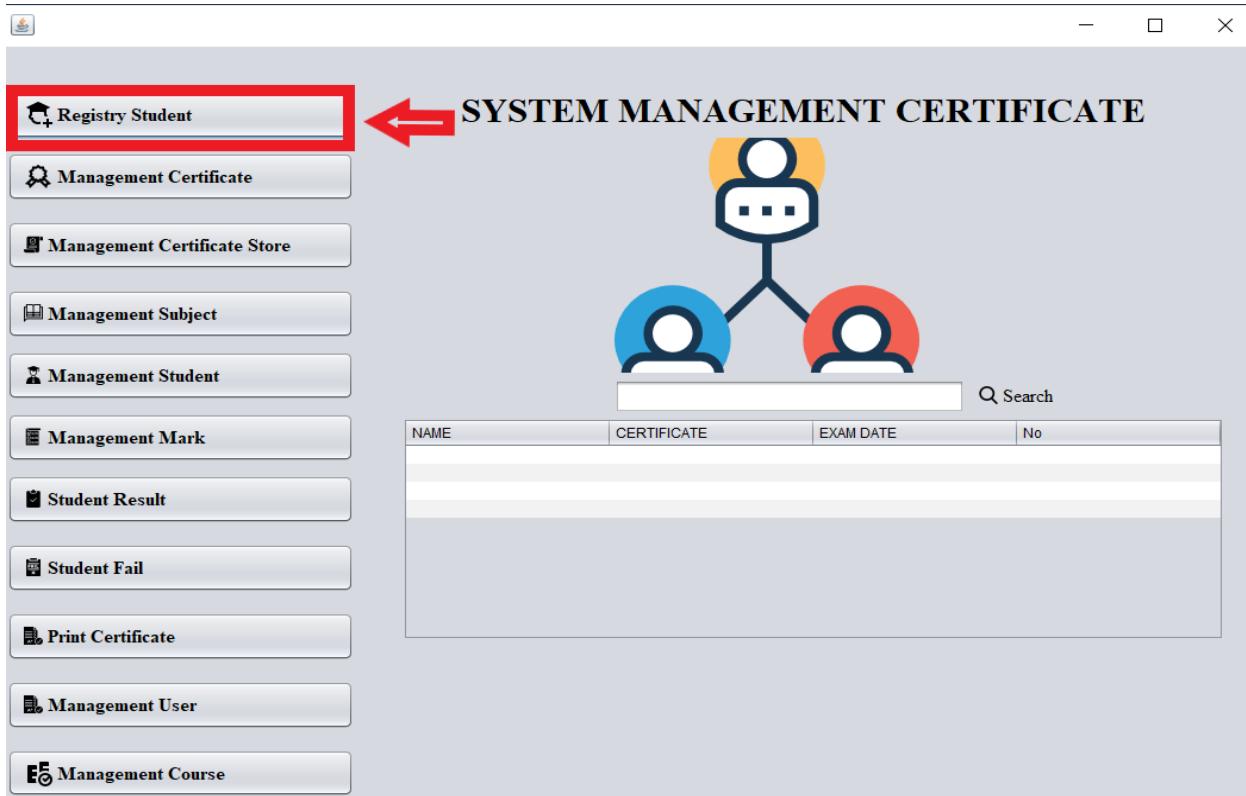


Figure 4.17: Click the button “Registry student”

- Step 2: Display form Register Student.

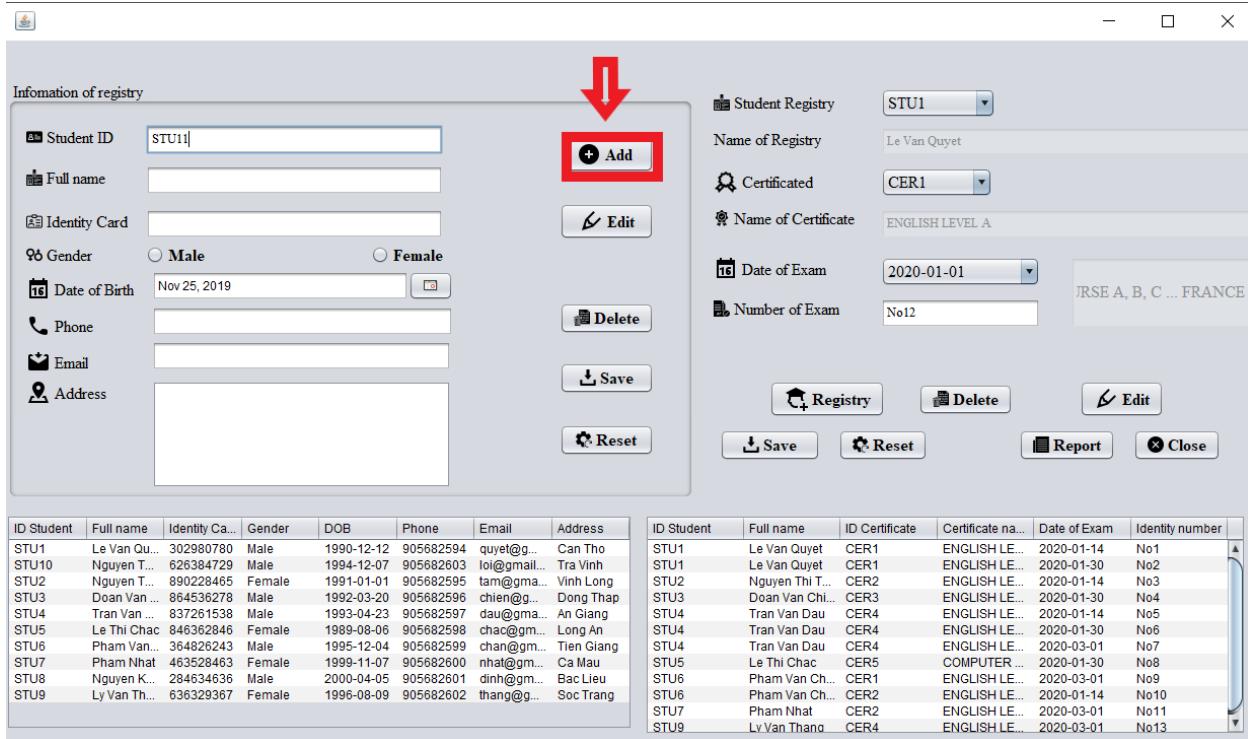
The screenshot shows a 'Form Register Student' dialog box. On the left, there is a section titled 'Information of registry' with fields for 'Student ID' (STU1), 'Full name', 'Identity Card', 'Gender' (Male selected), 'Date of Birth' (Nov 25, 2019), 'Phone', 'Email', and 'Address'. To the right of these fields are buttons for '+ Add', 'Edit', 'Delete', 'Save', and 'Reset'. Above these buttons are dropdown menus for 'Student Registry' (STU1), 'Name of Registry' (Le Van Quyet), 'Certified' (CER1), and 'Name of Certificate' (ENGLISH LEVEL A). Below these are dropdown menus for 'Date of Exam' (2020-01-01) and 'Number of Exam' (No12). On the far right are buttons for 'Registry', 'Delete', 'Edit', 'Save', 'Reset', 'Report', and 'Close'. At the bottom of the dialog box, there are two tables showing lists of students and certificates.

ID Student	Full name	Identity Ca...	Gender	DOB	Phone	Email	Address
STU1	Le Van Qu...	302980780	Male	1990-12-12	905682594	quyet@g...	Can Tho
STU10	Nguyen T...	626384729	Male	1994-12-07	905682603	toi@gmail...	Tra Vinh
STU2	Nguyen T...	890228465	Female	1991-01-01	905682595	tam@gma...	Vinh Long
STU3	Doan Van ...	864536278	Male	1992-03-20	905682596	chien@g...	Dong Thap
STU4	Tran Van C...	864536277	Male	1993-04-07	905682597	thieu@out...	Gia Lai
STU5	Le Thi Chac	846362946	Female	1989-08-06	905682598	chac@gm...	Long An

ID Student	Full name	ID Certificate	Certificate na...	Date of Exam	Identity number
STU1	Le Van Quyet	CER1	ENGLISH LE...	2020-01-14	No1
STU1	Le Van Quyet	CER1	ENGLISH LE...	2020-01-30	No2
STU2	Nguyen Thi...	CER2	ENGLISH LE...	2020-01-14	No3
STU3	Doan Van Chi...	CER3	ENGLISH LE...	2020-01-30	No4
STU4	Tran Van Chuc	CER4	ENGLISH LE...	2020-01-14	No5
STU4	Tran Van Dau	CER4	ENGLISH LE...	2020-01-30	No6

Figure 4.18: Form Register Student

- Step 3: User want add information student



The screenshot shows the 'Infomation of registry' window. On the left, there is a form for adding a new student with fields for Student ID (STU11), Full name, Identity Card, Gender (Male selected), Date of Birth (Nov 25, 2019), Phone, Email, and Address. On the right, there are dropdown menus for Student Registry (STU1), Name of Registry (Le Van Quyet), Certificated (CER1), Name of Certificate (ENGLISH LEVEL A), Date of Exam (2020-01-01), Number of Exam (No12), and a note about IRSE A, B, C ... FRANCE. Below the form are buttons for Add (+), Edit, Delete, Save, Reset, Registry, Delete, Edit, Save, Reset, Report, and Close. At the bottom, there are two tables: one for student information and one for certificates.

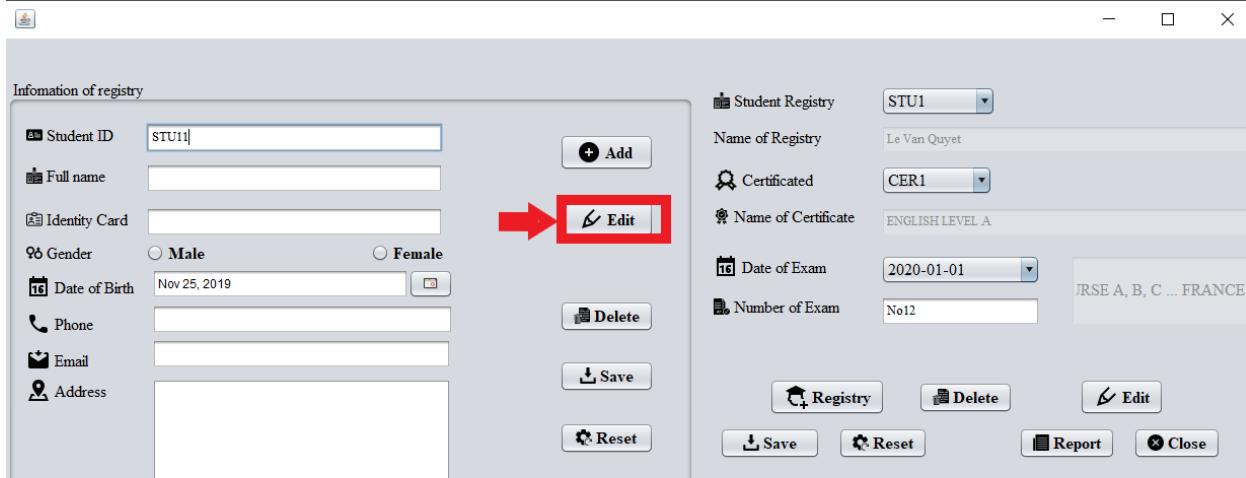
ID Student	Full name	Identity Ca...	Gender	DOB	Phone	Email	Address
STU1	Le Van Qu...	302980780	Male	1990-12-12	905682594	quyet@g...	Can Tho
STU10	Nguyen T...	626384729	Male	1994-12-07	905682603	lo@gmail...	Tra Vinh
STU2	Nguyen T...	890228465	Female	1991-01-01	905682595	tam@gma...	Vinh Long
STU3	Doan Van ...	864536278	Male	1992-03-20	905682596	chien@g...	Dong Thap
STU4	Tran Van ...	837261538	Male	1993-04-23	905682597	dau@gma...	An Giang
STU5	Le Thi Chac	846362846	Female	1989-08-06	905682598	chac@gm...	Long An
STU6	Pham Van ...	364826243	Male	1995-12-04	905682599	chan@gm...	Tien Giang
STU7	Pham Nhat	463528463	Female	1999-11-07	905682600	nhat@gm...	Ca Mau
STU8	Nguyen K...	284634636	Male	2000-04-05	905682601	dinh@gm...	Bac Lieu
STU9	Ly Van Th...	636329367	Female	1996-08-09	905682602	thang@g...	Soc Trang

ID Student	Full name	ID Certificate	Certificate na...	Date of Exam	Identity number
STU1	Le Van Quyet	CER1	ENGLISH LE...	2020-01-14	No1
STU1	Le Van Quyet	CER1	ENGLISH LE...	2020-01-30	No2
STU2	Nguyen Thi T...	CER2	ENGLISH LE...	2020-01-14	No3
STU3	Doan Van Chi...	CER3	ENGLISH LE...	2020-01-30	No4
STU4	Tran Van Dau	CER4	ENGLISH LE...	2020-01-14	No5
STU4	Tran Van Dau	CER4	ENGLISH LE...	2020-01-30	No6
STU4	Tran Van Dau	CER4	ENGLISH LE...	2020-03-01	No7
STU5	Le Thi Chac	CER5	COMPUTER ...	2020-01-30	No8
STU6	Pham Van Ch...	CER1	ENGLISH LE...	2020-03-01	No9
STU6	Pham Van Ch...	CER2	ENGLISH LE...	2020-01-14	No10
STU7	Pham Nhat	CER2	ENGLISH LE...	2020-03-01	No11
STU9	Ly Van Thanh	CER4	ENGLISH LE...	2020-03-01	No13

Figure 4.19: Click the button “Add” in registry student

After clicking the button “add”. Enter information student and click the button “save”. (THE SAME STEP 3 – 4.2)

- Step 4: User want edit information student



The screenshot shows a software interface for managing student information. On the left, there is a form titled "Information of registry" containing fields for Student ID (STU11), Full name, Identity Card, Gender (Male selected), Date of Birth (Nov 25, 2019), Phone, Email, and Address. To the right of this form is a larger panel for "Student Registry" with dropdown menus for Student Registry (STU1), Name of Registry (Le Van Quyết), Certificated (CER1), Name of Certificate (ENGLISH LEVEL A), Date of Exam (2020-01-01), and Number of Exam (No1). Below these are buttons for Registry, Delete, Edit, Save, Reset, Report, and Close. A red arrow points to the "Edit" button in the main form. At the bottom, there are two tables showing lists of students.

ID Student	Full name	Identity Ca...	Gender	DOB	Phone	Email	Address
STU1	Le Van Qu...	302980780	Male	1990-12-12	905682594	quyet@g...	Can Tho
STU10	Nguyen T...	626384729	Male	1994-12-07	905682603	lo@gmail...	Tra Vinh
STU2	Nguyen T...	890228465	Female	1991-01-01	905682595	tam@gma...	Vinh Long
STU3	Doan Van ...	864536278	Male	1992-03-20	905682596	chien@g...	Dong Thap
STU4	Tran Van ...	837261538	Male	1993-04-23	905682597	dau@gma...	An Giang
STU5	Le Thi Chac	846362846	Female	1989-08-06	905682598	chac@gm...	Long An
STU6	Pham Van...	364826243	Male	1995-12-04	905682599	chan@gm...	Tien Giang
STU7	Pham Nhat	463528463	Female	1999-11-07	905682600	nhat@gm...	Ca Mau
STU8	Nguyen K...	284634636	Male	2000-04-05	905682601	dinh@gm...	Bac Lieu
STU9	Ly Van Th...	636329367	Female	1996-08-09	905682602	thang@g...	Soc Trang

ID Student	Full name	ID Certificate	Certificate na...	Date of Exam	Identity number
STU1	Le Van Quyết	CER1	ENGLISH LE...	2020-01-14	No1
STU1	Le Van Quyết	CER1	ENGLISH LE...	2020-01-30	No2
STU2	Nguyen Thi T...	CER2	ENGLISH LE...	2020-01-14	No3
STU3	Doan Van Chi...	CER3	ENGLISH LE...	2020-01-30	No4
STU4	Tran Van Dau	CER4	ENGLISH LE...	2020-01-14	No5
STU4	Tran Van Dau	CER4	ENGLISH LE...	2020-01-30	No6
STU4	Tran Van Dau	CER4	ENGLISH LE...	2020-03-01	No7
STU5	Le Thi Chac	CER5	COMPUTER ...	2020-01-30	No8
STU6	Pham Van Ch...	CER1	ENGLISH LE...	2020-03-01	No9
STU6	Pham Van Ch...	CER2	ENGLISH LE...	2020-01-14	No10
STU7	Pham Nhat	CER2	ENGLISH LE...	2020-03-01	No11
STU9	Lv Van Thanh	CER4	ENGLISH LE...	2020-03-01	No13

Figure 4.20: Click the button “Edit” in registry student

After clicking the button “Edit” and choose information student and enter information student be edit and click the button “Save”.
(THE SAME STEP 4 - 4.2)

- Step 5: User want delete information student

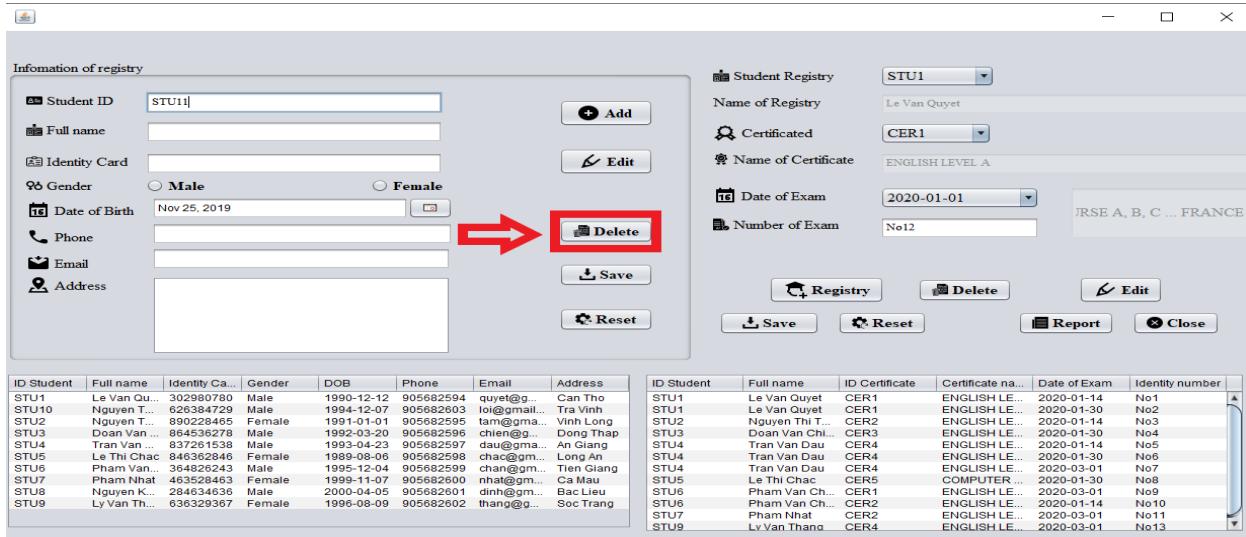


Figure 4.21: Click the button “Delete” in registry student

After clicking the button “Delete” and choose information student. Display message and click “OK”. (THE SAME STEP 5 -4.2).

- Step 6: User want report information student

After clicking the button “Report”. Display form report. Choose folder save, enter name. And click the button “Save”. (THE SAME STEP 6 – 4.2).

The screenshot shows a software interface for managing student records. On the left, there is a form titled "Information of registry" containing fields for Student ID (STU11), Full name, Identity Card, Gender (Male selected), Date of Birth (Nov 25, 2019), Phone, Email, and Address. To the right of this form is another section with fields for Student Registry (STU1), Name of Registry (Le Van Quyet), Certificated (CER1), Name of Certificate (ENGLISH LEVEL A), Date of Exam (2020-01-01), and Number of Exam (No12). Below these sections are buttons for Registry, Delete, Edit, Save, Reset, and Report. The "Report" button is highlighted with a red arrow. At the bottom of the screen is a table listing student data.

ID Student	Full name	Identity Ca...	Gender	DOB	Phone	Email	Address
STU1	Le Van Qu...	302980780	Male	1990-12-12	905682594	quey@g...	Can Tho
STU10	Nguyen T...	626384729	Male	1994-12-07	905682603	loit@gmail...	Tra Vinh
STU2	Nguyen T...	890228465	Female	1991-01-01	905682595	tam@gma...	Vinh Long
STU3	Doan Van ...	864536278	Male	1992-03-20	905682596	chien@g...	Dong Thap
STU4	Tran Van ...	837261538	Male	1993-04-23	905682597	dau@gma...	An Giang
STU5	Le Thi Chac...	846362846	Female	1989-08-06	905682598	chac@gm...	Long An
STU6	Pham Van...	364826243	Male	1995-12-04	905682599	chan@gm...	Tien Giang
STU7	Pham Nhat	463528463	Female	1999-11-07	905682600	nhat@gm...	Ca Mau
STU8	Nguyen K...	284634636	Male	2000-04-05	905682601	dinh@gm...	Bac Lieu
STU9	Ly Van Th...	636329367	Female	1996-08-09	905682602	thang@g...	Soc Trang

ID Student	Full name	ID Certificate	Certificate na...	Date of Exam	Identity number
STU1	Le Van Quyet	CER1	ENGLISH LE...	2020-01-14	No1
STU1	Le Van Quyet	CER1	ENGLISH LE...	2020-01-30	No2
STU2	Nguyen Thi T...	CER2	ENGLISH LE...	2020-01-14	No3
STU3	Doan Van Chi...	CER3	ENGLISH LE...	2020-01-30	No4
STU4	Tran Van Dau	CER4	ENGLISH LE...	2020-01-14	No5
STU4	Tran Van Dau	CER4	ENGLISH LE...	2020-01-30	No6
STU4	Tran Van Dau	CER4	ENGLISH LE...	2020-03-01	No7
STU5	Le Thi Chac	CER5	COMPUTER ...	2020-01-30	No8
STU6	Pham Van Ch...	CER1	ENGLISH LE...	2020-03-01	No9
STU6	Pham Van Ch...	CER2	ENGLISH LE...	2020-01-14	No10
STU7	Pham Nhat	CER2	ENGLISH LE...	2020-03-01	No11
STU9	Ly Van Thanh	CER4	ENGLISH LE...	2020-03-01	No13

Figure 4.22: Click the button “Report” in registry student

- Step 7: User want register for student.
After clicking the button “Registry”. And choose to combo box “Student Registry”, “Certificated” and “Date of Exam”. And click the button “Save”.

The screenshot shows the 'Information of registry' section on the left and a list of students on the right. The 'Registry' button is highlighted with a red arrow.

ID Student	Full name	Identity Ca...	Gender	DOB	Phone	Email	Address
STU1	Le Van Qu...	302980780	Male	1990-12-12	905682594	quyet@g...	Can Tho
STU10	Nguyen T...	626384729	Male	1994-12-07	905682603	lo@gmail...	Tra Vinh
STU2	Nguyen T...	890228465	Female	1991-01-01	905682595	tam@gma...	Vinh Long
STU3	Doan Van ...	864536278	Male	1992-03-20	905682596	chien@g...	Dong Thap
STU4	Tran Van ...	837261538	Male	1993-04-23	905682597	dau@gma...	An Giang
STU5	Le Thi Chac	846362846	Female	1989-08-06	905682598	chac@gm...	Long An
STU6	Pham Van...	364826243	Male	1995-12-04	905682599	chan@gm...	Tien Giang
STU7	Pham Nhat	463528463	Female	1999-11-07	905682600	nhat@gm...	Ca Mau
STU8	Nguyen K...	284634636	Male	2000-04-05	905682601	dinh@gm...	Bac Lieu
STU9	Ly Van Th...	636329367	Female	1996-08-09	905682602	thang@g...	Soc Trang

ID Student	Full name	ID Certificate	Certificate na...	Date of Exam	Identity number
STU1	Le Van Quyet	CER1	ENGLISH LE...	2020-01-14	No1
STU1	Le Van Quyet	CER1	ENGLISH LE...	2020-01-30	No2
STU2	Nguyen Thi T...	CER2	ENGLISH LE...	2020-01-14	No3
STU3	Doan Van Chi...	CER3	ENGLISH LE...	2020-01-30	No4
STU4	Tran Van Dau	CER4	ENGLISH LE...	2020-01-14	No5
STU4	Tran Van Dau	CER4	ENGLISH LE...	2020-01-30	No6
STU4	Tran Van Dau	CER4	ENGLISH LE...	2020-03-01	No7
STU5	Le Thi Chac	CER5	COMPUTER ...	2020-01-30	No8
STU6	Pham Van Ch...	CER1	ENGLISH LE...	2020-03-01	No9
STU6	Pham Van Ch...	CER2	ENGLISH LE...	2020-01-14	No10
STU7	Pham Nhat	CER2	ENGLISH LE...	2020-03-01	No11
STU9	Ly Van Thanh	CER4	ENGLISH LE...	2020-03-01	No13

Figure 4.23: Click the button “Registry” in registry student

The screenshot shows the 'Information of registry' section on the left and a list of students on the right. The 'Save' button is highlighted with a red arrow.

ID Student	Full name	Identity Ca...	Gender	DOB	Phone	Email	Address
STU1	Le Van Qu...	302980780	Male	1990-12-12	905682594	quyet@g...	Can Tho
STU10	Nguyen T...	626384729	Male	1994-12-07	905682603	lo@gmail...	Tra Vinh
STU2	Nguyen T...	890228465	Female	1991-01-01	905682595	tam@gma...	Vinh Long
STU3	Doan Van ...	864536278	Male	1992-03-20	905682596	chien@g...	Dong Thap
STU4	Tran Van ...	837261538	Male	1993-04-23	905682597	dau@gma...	An Giang
STU5	Le Thi Chac	846362846	Female	1989-08-06	905682598	chac@gm...	Long An
STU6	Pham Van...	364826243	Male	1995-12-04	905682599	chan@gm...	Tien Giang
STU7	Pham Nhat	463528463	Female	1999-11-07	905682600	nhat@gm...	Ca Mau
STU8	Nguyen K...	284634636	Male	2000-04-05	905682601	dinh@gm...	Bac Lieu
STU9	Ly Van Th...	636329367	Female	1996-08-09	905682602	thang@g...	Soc Trang

ID Student	Full name	ID Certificate	Certificate na...	Date of Exam	Identity number
STU1	Le Van Quyet	CER1	ENGLISH LE...	2020-01-14	No1
STU1	Le Van Quyet	CER1	ENGLISH LE...	2020-01-30	No2
STU2	Nguyen Thi T...	CER2	ENGLISH LE...	2020-01-14	No3
STU3	Doan Van Chi...	CER3	ENGLISH LE...	2020-01-30	No4
STU4	Tran Van Dau	CER4	ENGLISH LE...	2020-01-14	No5
STU4	Tran Van Dau	CER4	ENGLISH LE...	2020-01-30	No6
STU4	Tran Van Dau	CER4	ENGLISH LE...	2020-03-01	No7
STU5	Le Thi Chac	CER5	COMPUTER ...	2020-01-30	No8
STU6	Pham Van Ch...	CER1	ENGLISH LE...	2020-03-01	No9
STU6	Pham Van Ch...	CER2	ENGLISH LE...	2020-01-14	No10
STU7	Pham Nhat	CER2	ENGLISH LE...	2020-03-01	No11
STU9	Ly Van Thanh	CER4	ENGLISH LE...	2020-03-01	No13

Figure 4.24: After click the button “registry” in registry student

- Step 8: User want edit information register for student.

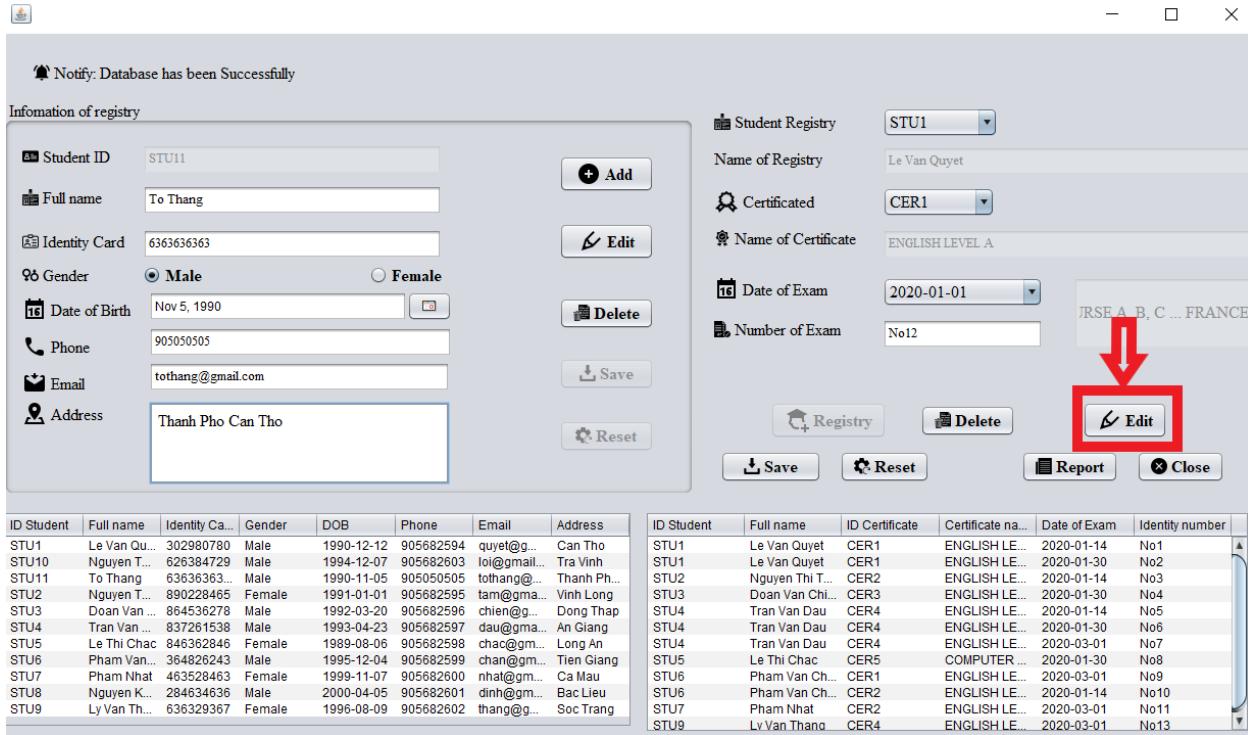


Figure 4.25: Click the button “Edit” in registry student

- Step 9: User want delete information register for student. After clicking the button “Delete” and choose information student want to delete to table. And display message, click the button “OK”.

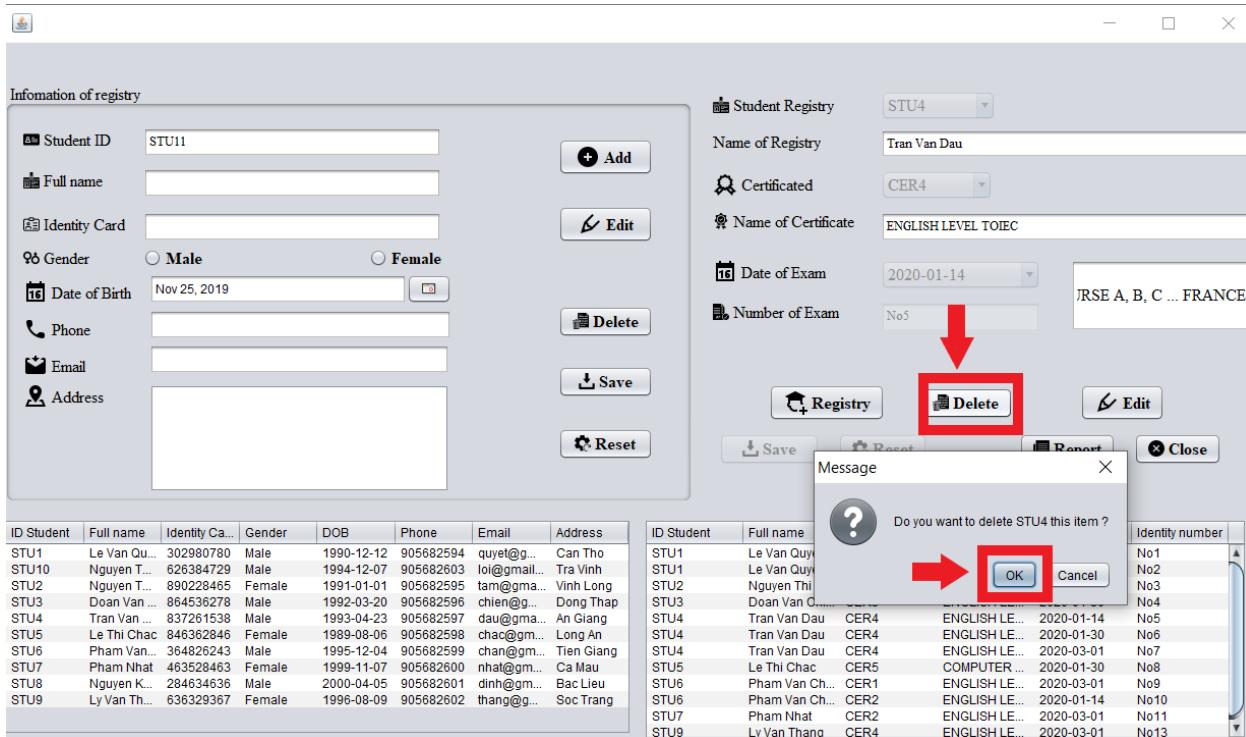


Figure 4.26: Click the button “Delete” in registry student

- Step 10: User want report information register for student. (THE SAME STEP 6 – 4.2).

The screenshot shows a Java Swing application window. At the top, there's a message: "Notify: Database has been Successfully". Below it, the title bar says "USER GUIDE AND INSTALL". The main area contains two panels: "Information of registry" on the left and "Student Registry" on the right.

Information of registry:

- Student ID: STU11
- Full name: To Thang
- Identity Card: 6363636363
- Gender: Male
- Date of Birth: Nov 5, 1990
- Phone: 905050505
- Email: tothang@gmail.com
- Address: Thanh Pho Can Tho

Buttons: Add, Edit, Delete, Save, Reset.

Student Registry:

- Student Registry: STU1
- Name of Registry: Le Van Quyet
- Certified: CER1
- Name of Certificate: ENGLISH LEVEL A
- Date of Exam: 2020-01-01
- Number of Exam: No12

Buttons: Registry, Delete, Edit, Save, Reset, Report (highlighted with a red box), Close.

Report Table:

ID Student	Full name	Identity Ca...	Gender	DOB	Phone	Email	Address	ID Student	Full name	ID Certificate	Certificate na...	Date of Exam	Identity number
STU1	Le Van Qu...	302980780	Male	1990-12-12	905682594	quyet@g...	Can Tho	STU1	Le Van Quyet	CER1	ENGLISH LE...	2020-01-14	No1
STU10	Nguyen T...	626384729	Male	1994-12-07	905682603	toi@gmail...	Tra Vinh	STU1	Le Van Quyet	CER1	ENGLISH LE...	2020-01-30	No2
STU11	To Thang	63636363...	Male	1990-11-05	905050505	tothang@g...	Thanh Ph...	STU2	Nguyen Thi T...	CER2	ENGLISH LE...	2020-01-14	No3
STU2	Nguyen T...	890228465	Female	1991-01-01	905682598	tam@gma...	Vinh Long	STU3	Doan Van Chi...	CER3	ENGLISH LE...	2020-01-30	No4
STU3	Doan Van ...	864536278	Male	1992-03-20	905682598	chien@g...	Dong Thap	STU4	Tran Van Dau	CER4	ENGLISH LE...	2020-01-14	No5
STU4	Tran Van ...	837261538	Male	1993-04-23	905682597	dau@gma...	An Giang	STU4	Tran Van Dau	CER4	ENGLISH LE...	2020-01-30	No6
STU5	Le Thi Chac	846362846	Female	1989-08-06	905682598	chac@gm...	Long An	STU4	Tran Van Dau	CER4	ENGLISH LE...	2020-03-01	No7
STU6	Pham Van...	364826243	Male	1995-12-04	905682599	chan@gm...	Tien Giang	STU5	Le Thi Chac	CER5	COMPUTER ...	2020-01-30	No8
STU7	Pham Nhat	463528463	Female	1999-11-07	905682600	nhat@gm...	Ca Mau	STU6	Pham Van Ch...	CER1	ENGLISH LE...	2020-03-01	No9
STU8	Nguyen K...	284634636	Male	2000-04-05	905682601	dinh@gm...	Bac Lieu	STU6	Pham Van Ch...	CER2	ENGLISH LE...	2020-01-14	No10
STU9	Ly Van Th...	636329367	Female	1996-08-09	905682602	thang@g...	Soc Trang	STU7	Pham Nhat	CER2	ENGLISH LE...	2020-03-01	No11
								STU9	Ly Van Thanh	CER4	ENGLISH LE...	2020-03-01	No13

Figure 4.27: Click the button “Report” in registry student

- Step 11: User want close form. (THE SAME STEP 7 – 4.2).

Notify: Database has been Successfully

Information of registry

ID Student	Full name	Identity Ca...	Gender	DOB	Phone	Email	Address
STU1	Le Van Qu...	302980780	Male	1990-12-12	905682594	quyet@g...	Can Tho
STU10	Nguyen T...	626384729	Male	1994-12-07	905682603	lo@gmail...	Tra Vinh
STU11	To Thang	63636363...	Male	1990-11-05	905050505	tothang@...	Thanh Ph...
STU2	Nguyen T...	890228465	Female	1991-01-01	905682595	tam@gma...	Vinh Long
STU3	Doan Van ...	864536278	Male	1992-03-20	905682596	chien@g...	Dong Thap
STU4	Tran Van ...	837261538	Male	1993-04-23	905682597	dau@gma...	An Giang
STU5	Le Thi Chac	846362846	Female	1989-08-06	905682598	char@gm...	Long An
STU6	Pham Van ...	364826243	Male	1995-12-04	905682599	chan@gm...	Tien Giang
STU7	Pham Nhat	463528463	Female	1999-11-07	905682600	nhat@gm...	Ca Mau
STU8	Nguyen K...	284634636	Male	2000-04-05	905682601	dinh@gm...	Bac Lieu
STU9	Ly Van Th...	636329367	Female	1996-08-09	905682602	thang@g...	Soc Trang

ID Student	Full name	ID Certificate	Certificate na...	Date of Exam	Identity number
STU1	Le Van Quyet	CER1	ENGLISH LE...	2020-01-14	No1
STU1	Le Van Quyet	CER1	ENGLISH LE...	2020-01-30	No2
STU2	Nguyen Thi T...	CER2	ENGLISH LE...	2020-01-14	No3
STU3	Doan Van Chi...	CER3	ENGLISH LE...	2020-01-30	No4
STU4	Tran Van Dau	CER4	ENGLISH LE...	2020-01-14	No5
STU4	Tran Van Dau	CER4	ENGLISH LE...	2020-01-30	No6
STU4	Tran Van Dau	CER4	ENGLISH LE...	2020-03-01	No7
STU5	Le Thi Chac	CER5	COMPUTER ...	2020-01-30	No8
STU6	Pham Van Ch...	CER1	ENGLISH LE...	2020-03-01	No9
STU6	Pham Van Ch...	CER2	ENGLISH LE...	2020-01-14	No10
STU7	Pham Nhat	CER2	ENGLISH LE...	2020-03-01	No11
STU9	Lv Van Thanh	CER4	ENGLISH LE...	2020-03-01	No13

Figure 4.28: Click the button “Close” in registry student

4.4 Management Certificate

- Step 1: In form system management certificate. Click the button “Management Certificate”.

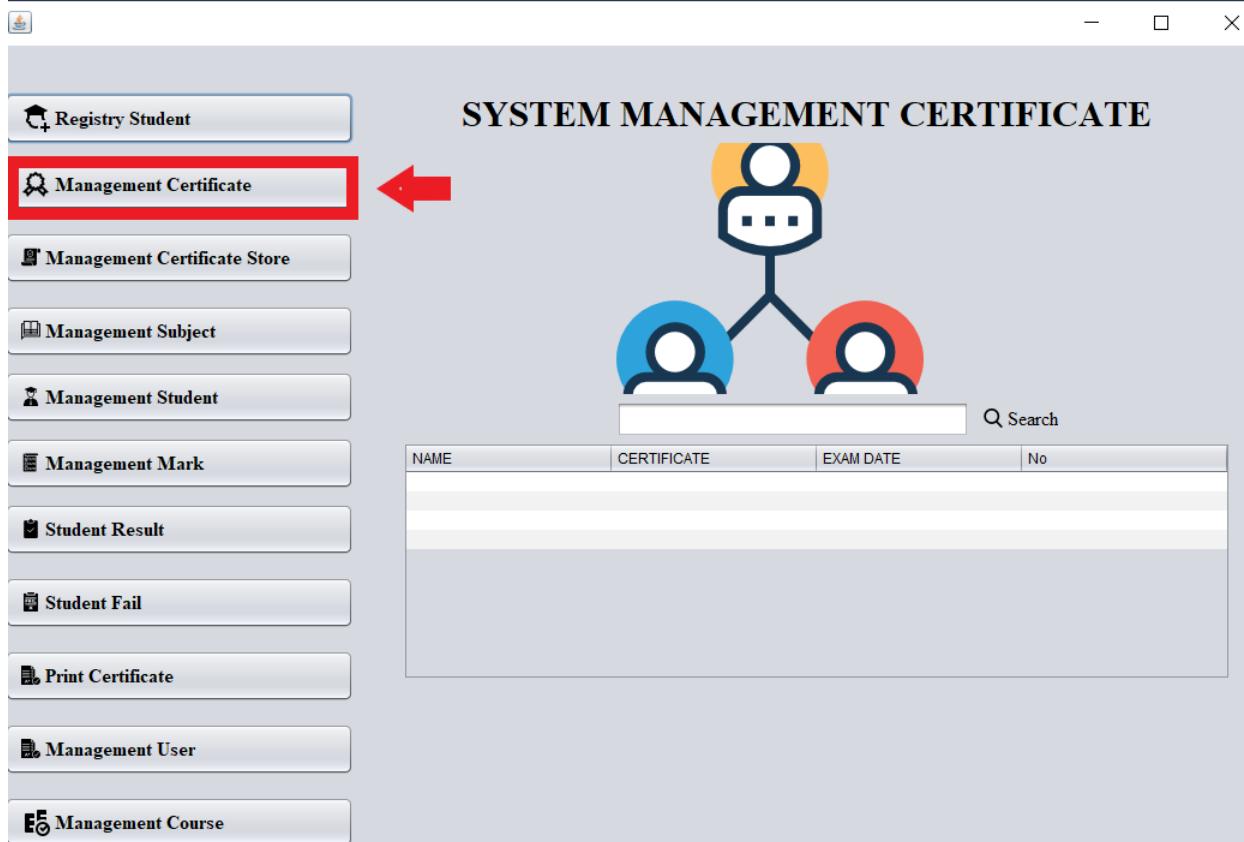


Figure 4.29: Click the button “Management Certificate”

- Step 2: Display Form Management Certificate.

CERTIFICATE ID	CERTIFICATE NAME	CERTIFICATE NUMBER
CER1	ENGLISH LEVEL A	ENGLISH1
CER2	ENGLISH LEVEL B	ENGLISH2
CER3	ENGLISH LEVEL C	ENGLISH3
CER4	ENGLISH LEVEL TOIEC	ENGLISH4
CER5	COMPUTER MAINTAINMENT	COMPUTER5
CER6	PROGRAMMING PHP LEVEL ADVANDT...	PROGRAM6

Figure 4.30: Form Management certificate

- Step 3: User want to add certificate. (THE SAME STEP 3 - 4.2).

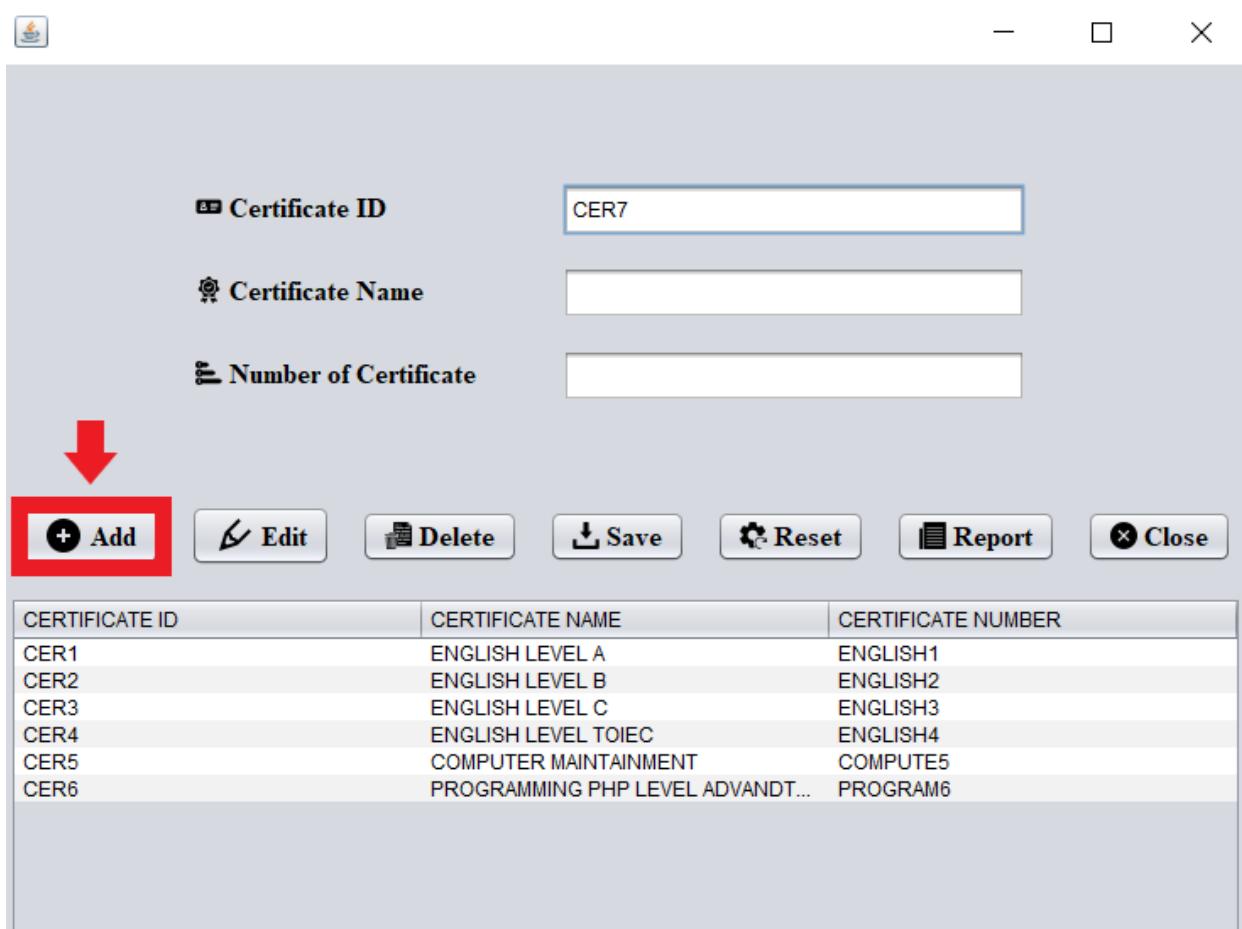


Figure 4.31: Click the button “Add” in management certificate

- Step 4: User want edit certificate. (THE SAME STEP 4 -4.2).

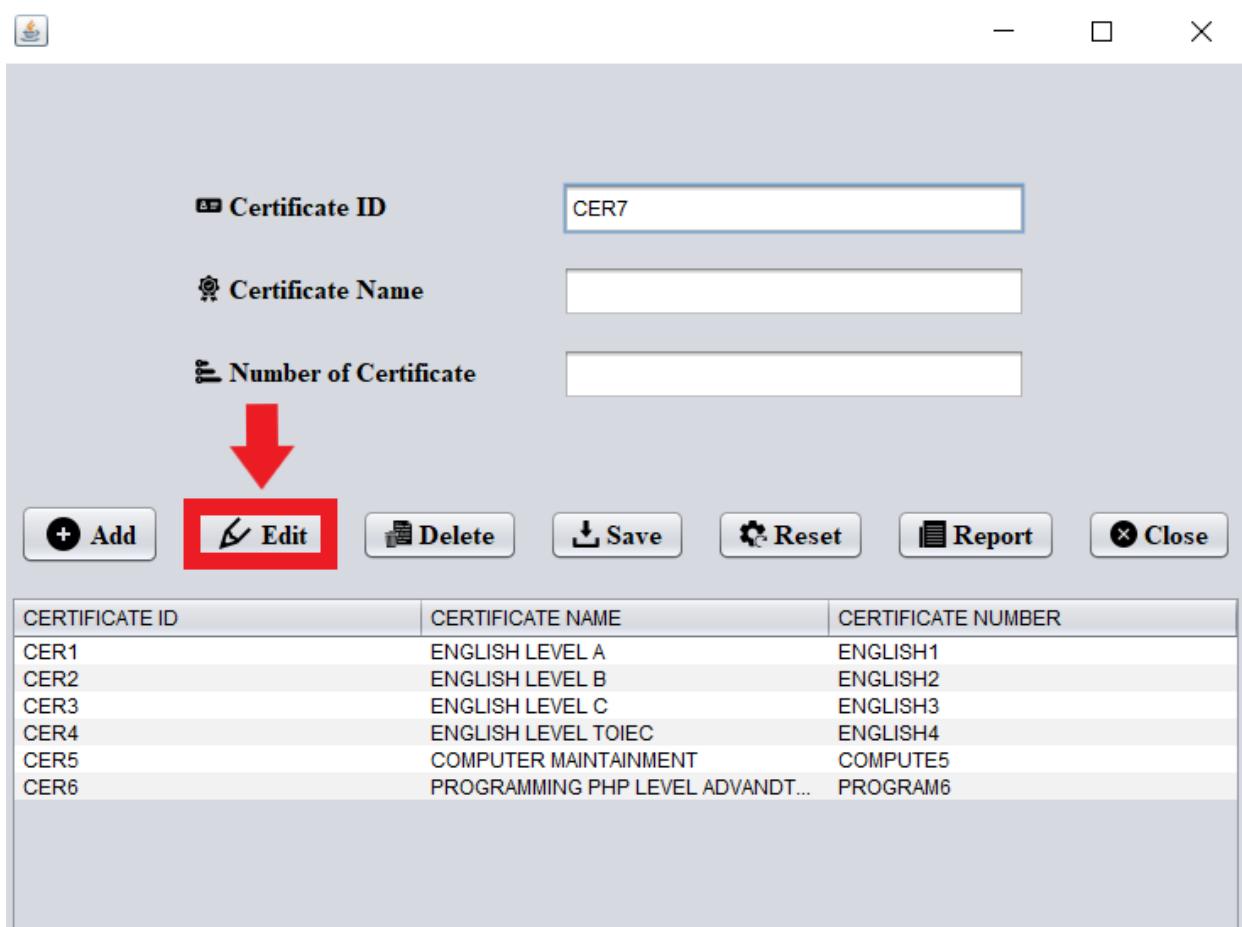


Figure 4.32: Click the button “Edit” in management certificate

- Step 5: User want to delete certificate. (THE SAME STEP 5 - 4.2).

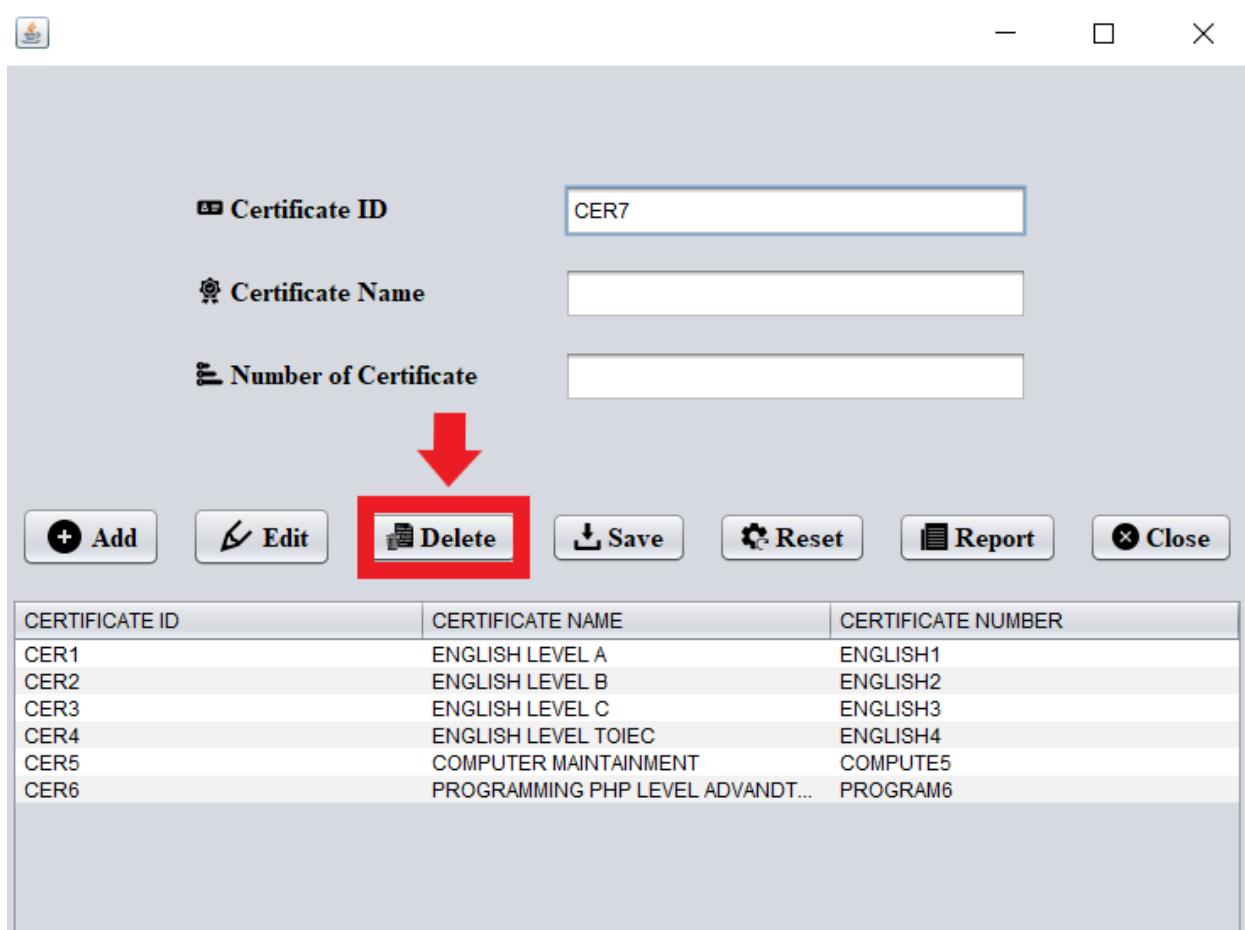


Figure 4.33: Click the button “Delete” in management certificate

- Step 6: User want report certificate. (THE SAME STEP 6 - 4.2).

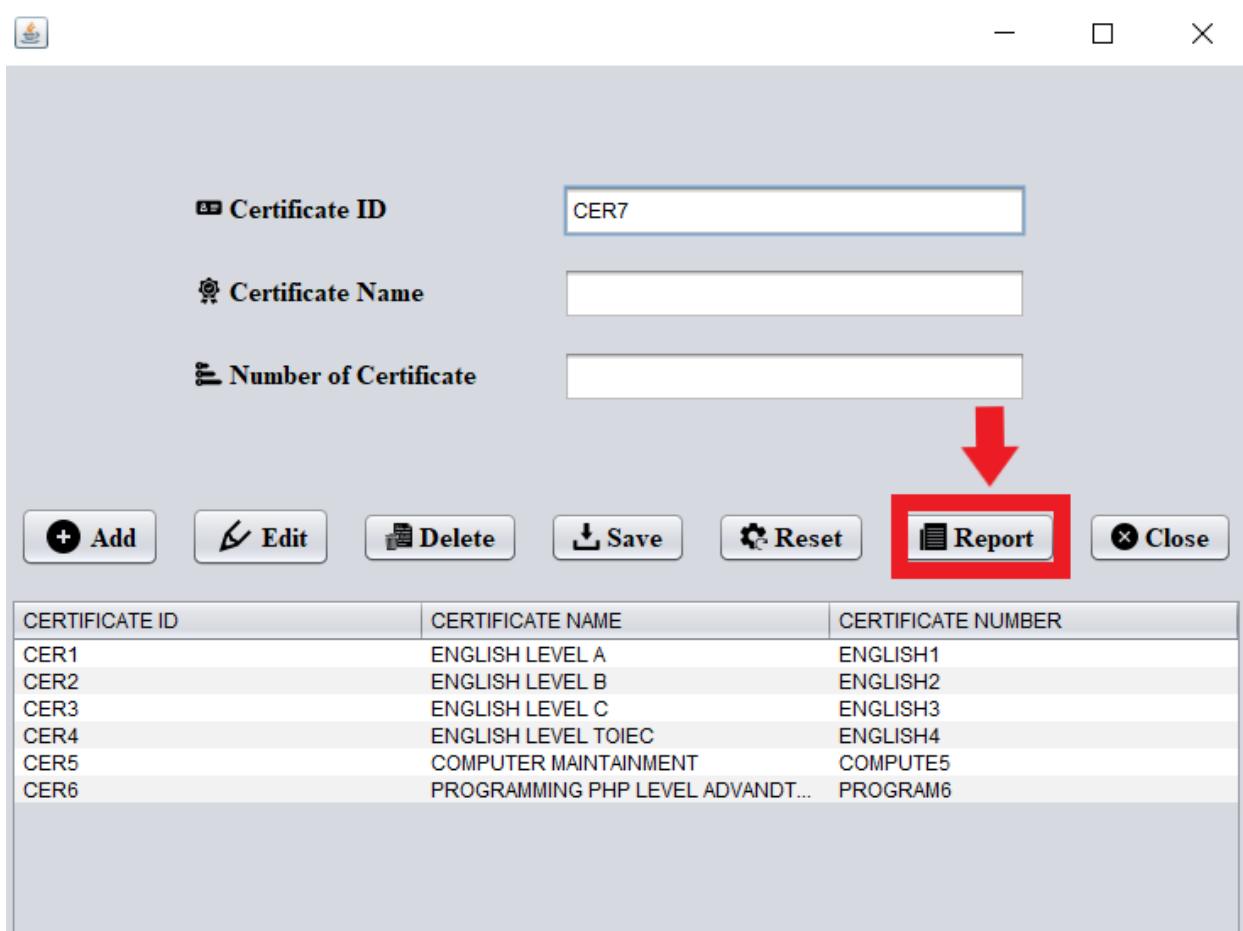


Figure 4.34: Click the button “Report” in management certificate

- Step 7: User want close form. (THE SAME STEP 7-4.2).

The screenshot shows a Java Swing application window titled "eProject Java – Group 2". The window has a title bar with standard minimize, maximize, and close buttons. The main area contains three text input fields labeled "Certificate ID" (containing "CER7"), "Certificate Name" (empty), and "Number of Certificate" (empty). Below these fields is a row of six buttons: "Add", "Edit", "Delete", "Save", "Reset", and "Report". The "Close" button is highlighted with a red rectangular border and a red arrow points to it from the bottom right. At the bottom of the window is a table with three columns: "CERTIFICATE ID", "CERTIFICATE NAME", and "CERTIFICATE NUMBER". The table contains six rows of data:

CERTIFICATE ID	CERTIFICATE NAME	CERTIFICATE NUMBER
CER1	ENGLISH LEVEL A	ENGLISH1
CER2	ENGLISH LEVEL B	ENGLISH2
CER3	ENGLISH LEVEL C	ENGLISH3
CER4	ENGLISH LEVEL TOIEC	ENGLISH4
CER5	COMPUTER MAINTAINMENT	COMPUTE5
CER6	PROGRAMMING PHP LEVEL ADVANDT...	PROGRAM6

Figure 4.35: Click the button “Close” in management certificate

4.5 Management Subjects

- Step 1: In form system management certificate. Click the button “Management Subject”.

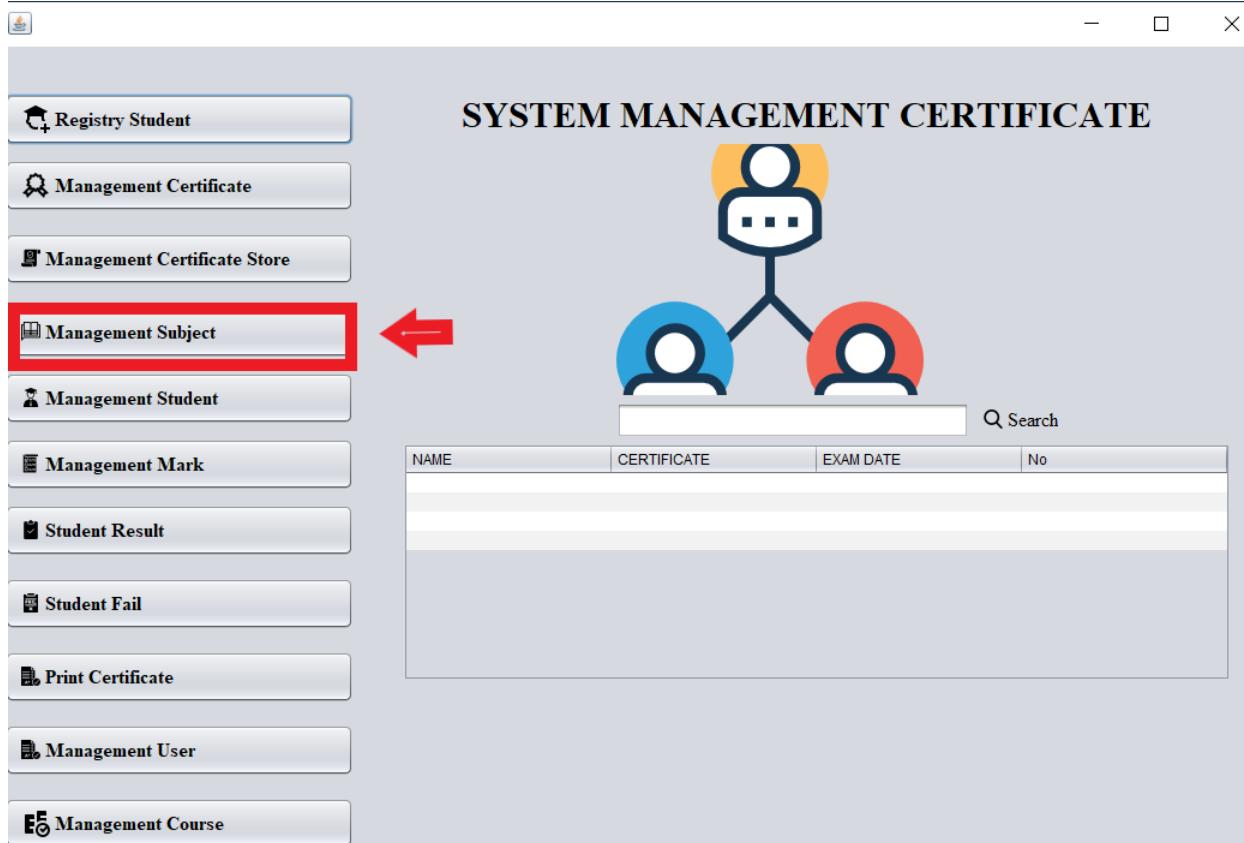


Figure 4.36: Click the button “Management Subject”

- Step 2: Display Form Management Subject.

The screenshot shows a Windows application window titled "Form Management Subject". At the top, there are three input fields: "Subject ID" (SBJ11), "Subject Name" (empty), and "Certificate" (CER1). Below these are several buttons: "+ Add", "Edit", "Delete", "Save", "Reset", "Report", and "Close". A table below the buttons displays a list of subjects with columns: SUBJECT ID, SUBJECT NAME, CERTIFICATE ID, and CERTIFICATE NAME. The data in the table is as follows:

SUBJECT ID	SUBJECT NAME	CERTIFICATE ID	CERTIFICATE NAME
SBJ1	Listening A	CER1	ENGLISH LEVEL A
SBJ10	Speaking IELTS	CER6	PROGRAMMING PHP LEVEL AD...
SBJ2	Speaking A	CER1	ENGLISH LEVEL A
SBJ3	Reading A	CER1	ENGLISH LEVEL A
SBJ4	Writing A	CER1	ENGLISH LEVEL A
SBJ5	Listening B	CER2	ENGLISH LEVEL B
SBJ6	Speaking C	CER3	ENGLISH LEVEL C
SBJ7	Reading D	CER4	ENGLISH LEVEL TOIEC
SBJ8	Writing D	CER4	ENGLISH LEVEL TOIEC
SBJ9	Listening TOIEC	CER5	COMPUTER MAINTAINMENT

Figure 4.37: Form Management subject

- Step 3: User want to add subject. (THE SAME STEP 3 – 4.2).

This screenshot is identical to Figure 4.37, showing the "Form Management Subject" window. However, a red arrow points to the "+ Add" button, highlighting it as the target for the next step.

Figure 4.38: Click the button “Add” in management subject

- Step 4: User want edit subject. (THE SAME STEP 4 – 4.2).

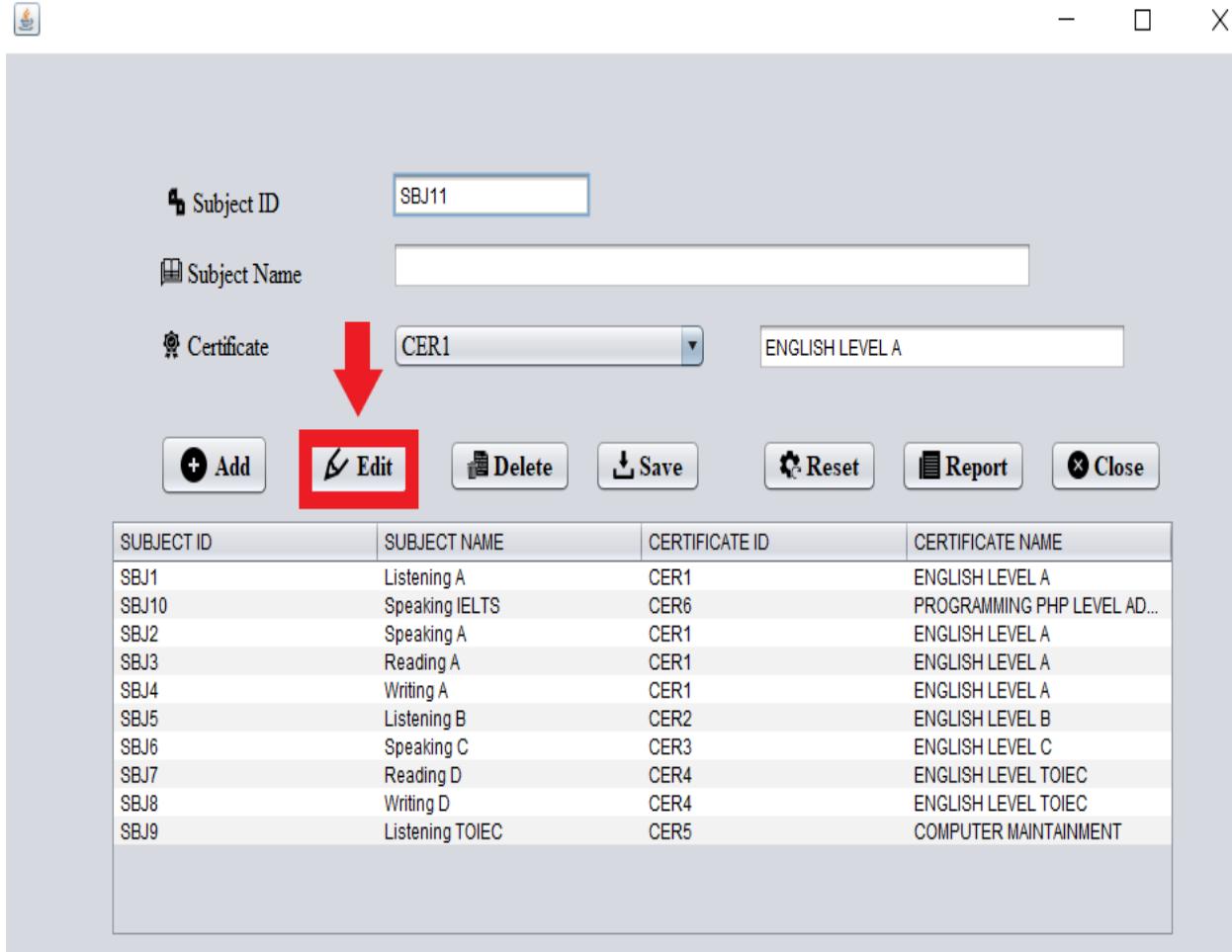


Figure 4.39: Click the button “Edit” in management subject

- Step 5: User want to delete subject. (THE SAME STEP 5 – 4.2)

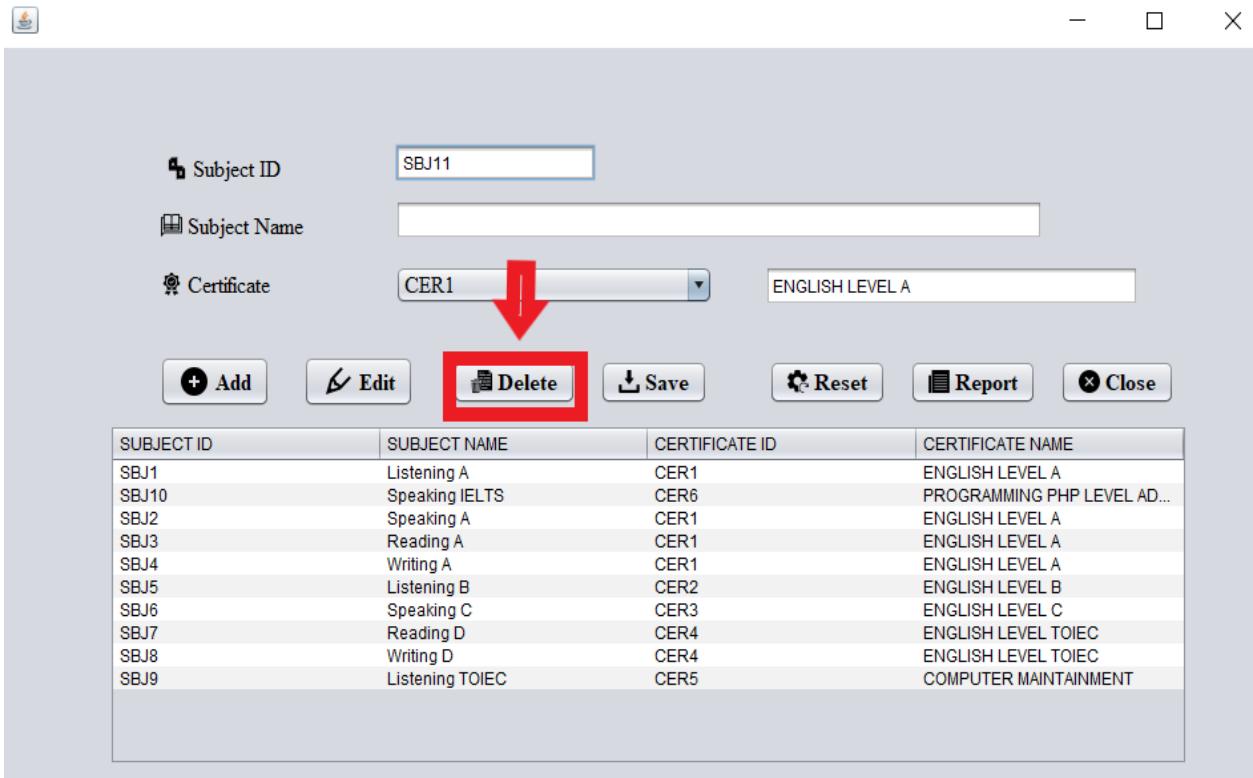


Figure 4.40: Click the button “Delete” in management subject

- Step 6: User want report subject. (THE SAME STEP 6 – 4.2).

SUBJECT ID	SUBJECT NAME	CERTIFICATE ID	CERTIFICATE NAME
SBJ1	Listening A	CER1	ENGLISH LEVEL A
SBJ10	Speaking IELTS	CER6	PROGRAMMING PHP LEVEL AD...
SBJ2	Speaking A	CER1	ENGLISH LEVEL A
SBJ3	Reading A	CER1	ENGLISH LEVEL A
SBJ4	Writing A	CER1	ENGLISH LEVEL A
SBJ5	Listening B	CER2	ENGLISH LEVEL B
SBJ6	Speaking C	CER3	ENGLISH LEVEL C
SBJ7	Reading D	CER4	ENGLISH LEVEL TOIEC
SBJ8	Writing D	CER4	ENGLISH LEVEL TOIEC
SBJ9	Listening TOIEC	CER5	COMPUTER MAINTAINMENT

Figure 4.41: Click the button “Report” in management subject

- Step 7: User want close form. (THE SAME STEP 7 – 4.2).

SUBJECT ID	SUBJECT NAME	CERTIFICATE ID	CERTIFICATE NAME
SBJ1	Listening A	CER1	ENGLISH LEVEL A
SBJ10	Speaking IELTS	CER6	PROGRAMMING PHP LEVEL AD...
SBJ2	Speaking A	CER1	ENGLISH LEVEL A
SBJ3	Reading A	CER1	ENGLISH LEVEL A
SBJ4	Writing A	CER1	ENGLISH LEVEL A
SBJ5	Listening B	CER2	ENGLISH LEVEL B
SBJ6	Speaking C	CER3	ENGLISH LEVEL C
SBJ7	Reading D	CER4	ENGLISH LEVEL TOIEC

Figure 4.42: Click the button “Close” in management subject

4.6 Management Exam Mark

- Step 1: In form system management certificate. Click the button “Management Mark”.

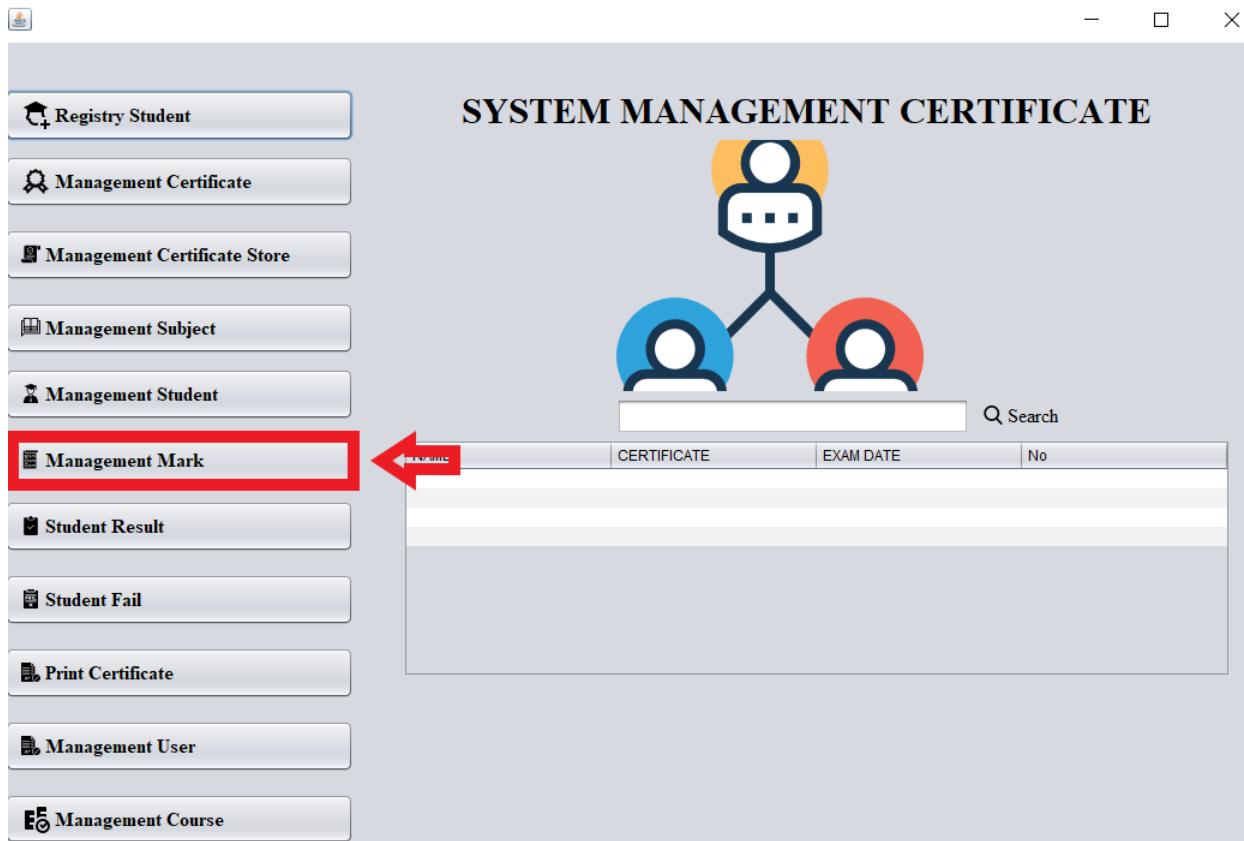


Figure 4.43: Click the button “Management Mark”

- Step 2: Display Form “Management Mark”.

The screenshot shows a software interface for managing student marks. At the top, there are input fields for 'ID NUMBER' (No1), 'Student name' (STU1), 'Subject ID' (SBJ1), and 'Subject name' (Listening A). Below these are buttons for '+ Add', 'Edit', 'Delete', 'Save', 'Reset', 'Report', and 'Close'. A large table below lists student marks:

ID Subject	Subject name	ID Number	Full name	Mark of Exam
SBJ1	Listening A	No1	Le Van Quyet	5.0
SBJ3	Reading A	No2	Le Van Quyet	3.0
SBJ7	Reading D	No4	Doan Van Chien	8.0
SBJ7	Reading D	No5	Tran Van Dau	3.0
SBJ8	Writing D	No5	Tran Van Dau	4.0

Figure 4.44: Form Management Mark

- Step 3: User want add mark (THE SAME STEP 3 – 4.2).

The screenshot shows the same software interface as Figure 4.44. A red arrow points to the '+ Add' button at the bottom left of the control panel. The table below shows a single row of data:

ID Subject	Subject name	ID Number	Full name	Mark of Exam
SBJ1	Listening A	No1	Le Van Quvet	5.0

Figure 4.45: Click the button “Add” in management mark

Step 4: User want edit mark (THE SAME STEP 4 – 4.2).

The screenshot shows a software window titled "Management Mark". It has fields for "ID NUMBER" (No1), "Student name" (STU1), "Subject ID" (SBJ1), and "Subject name" (Listening A). Below these is a "MARK" input field. At the bottom are buttons: "+ Add", "Edit" (highlighted with a red box and arrow), "Delete", "Save", "Reset", "Report", and "Close". A table below lists student marks:

ID Subject	Subject name	ID Number	Full name	Mark of Exam
SBJ1	Listening A	No1	Le Van Quyet	5.0
SBJ3	Reading A	No2	Le Van Quyet	3.0
SBJ7	Reading D	No4	Doan Van Chien	8.0
SBJ7	Reading D	No5	Tran Van Dau	3.0
SBJ8	Writing D	No5	Tran Van Dau	4.0

Figure 4.46: Click the button “Edit” in management mark

Step 5: User want delete mark (THE SAME STEP 5 – 4.2)

The screenshot shows the same software window as Figure 4.46. The "Edit" button is highlighted with a red box and arrow. Below it is the "Delete" button, which is also highlighted with a red box and arrow. The other buttons are "Add", "Save", "Reset", "Report", and "Close". The table of student marks is identical to Figure 4.46.

Figure 4.47: Click the button “Delete” in management mark

Step 6: User want report mark (THE SAME STEP 6 – 4.2).

The screenshot shows a software window with the following fields:

- ID NUMBER: No1
- Student name: STU1
- Subject ID: SBJ1
- Subject name: Listening A
- MARK: (empty input field)

Below these fields are several buttons: Add, Edit, Delete, Save, Reset, Report (highlighted with a red box), and Close.

A red arrow points downwards from the 'Report' button towards a table below.

ID Subject	Subject name	ID Number	Full name	Mark of Exam
SBJ1	Listening A	No1	Le Van Quyet	5.0
SBJ3	Reading A	No2	Le Van Quyet	3.0
SBJ7	Reading D	No4	Doan Van Chien	8.0
SBJ7	Reading D	No5	Tran Van Dau	3.0
SBJ8	Writing D	No5	Tran Van Dau	4.0

Figure 4.48: Click the button “Report” in management mark

Step 7: User want close form (THE SAME STEP 7 – 4.2).

The screenshot shows a software window with the same fields as Figure 4.48:

- ID NUMBER: No1
- Student name: STU1
- Subject ID: SBJ1
- Subject name: Listening A
- MARK: (empty input field)

Below these fields are the same set of buttons: Add, Edit, Delete, Save, Reset, Report, and Close (highlighted with a red box).

A red arrow points downwards from the 'Close' button towards the same table as in Figure 4.48.

ID Subject	Subject name	ID Number	Full name	Mark of Exam
SBJ1	Listening A	No1	Le Van Quyet	5.0
SBJ3	Reading A	No2	Le Van Quyet	3.0
SBJ7	Reading D	No4	Doan Van Chien	8.0
SBJ7	Reading D	No5	Tran Van Dau	3.0

Figure 4.49: Click the button “close” in management mark

4.7 Management Certificate Store.

- Step 1: In form system management certificate. Click the button “Management Certificate Store”.



Figure 4.50: Click the button “Management Certificate Store”

- Step 2: Display form Management Certificate Store.

The screenshot shows a Windows-style application window titled "Management Certificate Store". Inside, there's a form with four input fields: "No. Certificate" (CERN01), "ID Number" (No1), "Student ID" (STU1), and "Student Name" (STU1). Below the form is a table with five columns: "Identity No", "ID Student", "Full name", "ID Number", and "Certificate name". At the bottom are several buttons: "Add" (highlighted with a red border), "Edit", "Delete", "Save", "Reset", "Report", and "Close".

Figure 4.51: Form Management Certificate Store

- Step 3: User want add Certificate Store (THE SAME STEP 3 – 4.2).

This screenshot is identical to Figure 4.51, showing the Management Certificate Store application. A red arrow points to the "Add" button at the bottom left of the interface, which is highlighted with a red border.

Figure 4.52: Click the button “add” in Management Certificate Store

- Step 4: User want edit Certificate Store (THE SAME STEP 4 – 4.2).

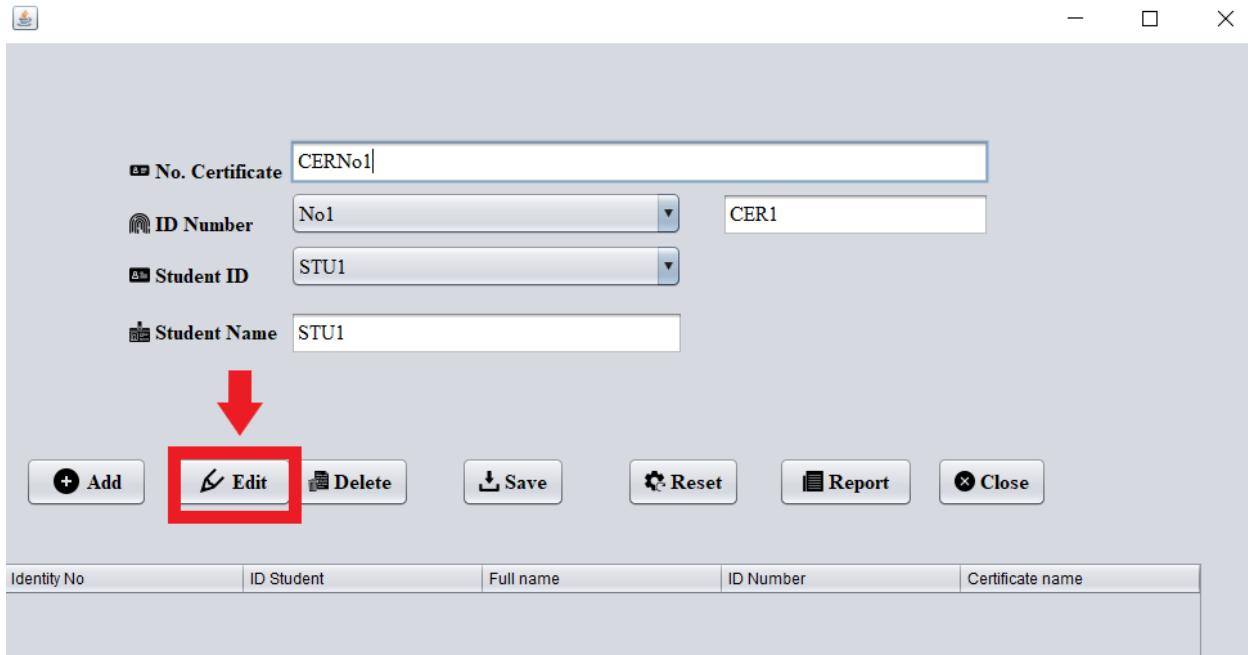


Figure 4.53: Click the button “edit” in Management Certificate Store

- Step 5: User want delete Certificate Store (THE SAME STEP 5 – 4.2).

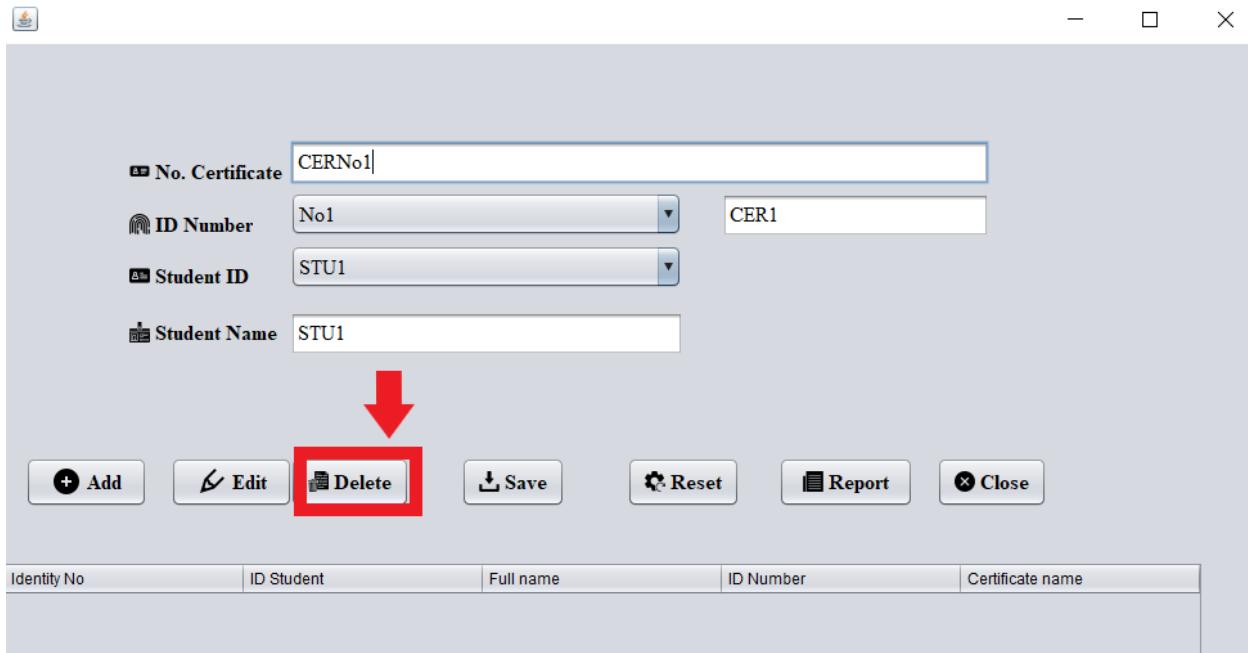


Figure 4.54: Click the button “delete” in Management Certificate Store

- Step 6: User want report Certificate Store (THE SAME STEP 6 – 4.2).

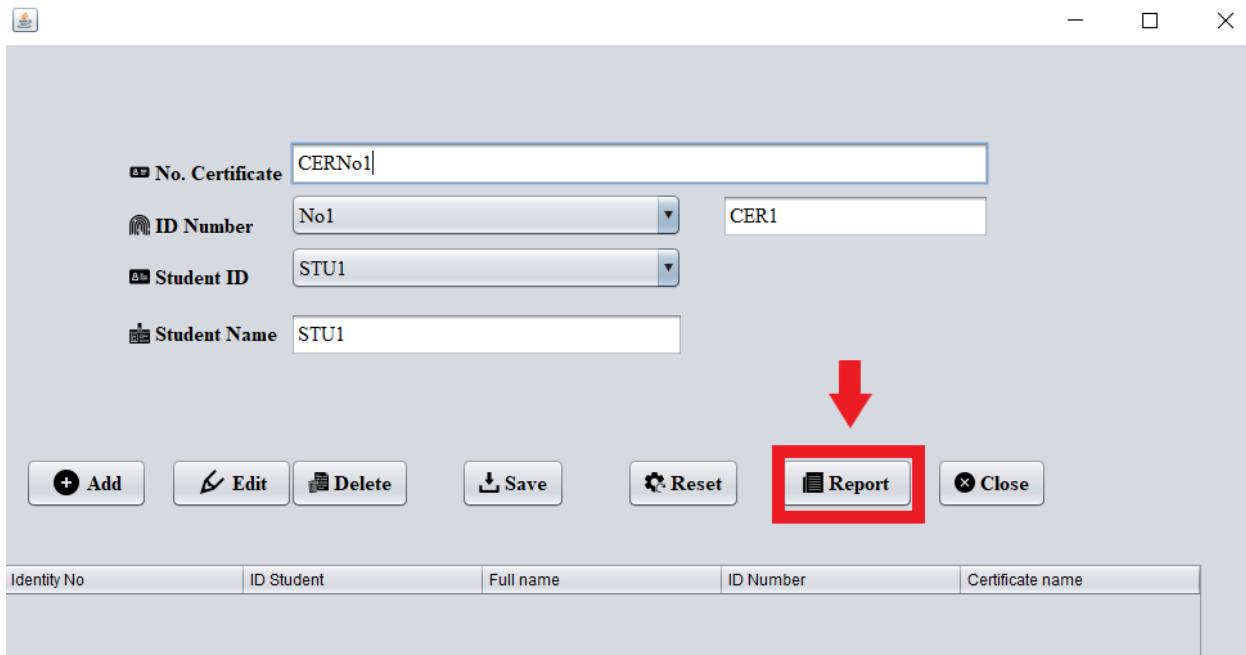


Figure 4.55: Click the button “report” in Management Certificate Store

- Step 7: User want close form (THE SAME STEP 3 – 4.2).

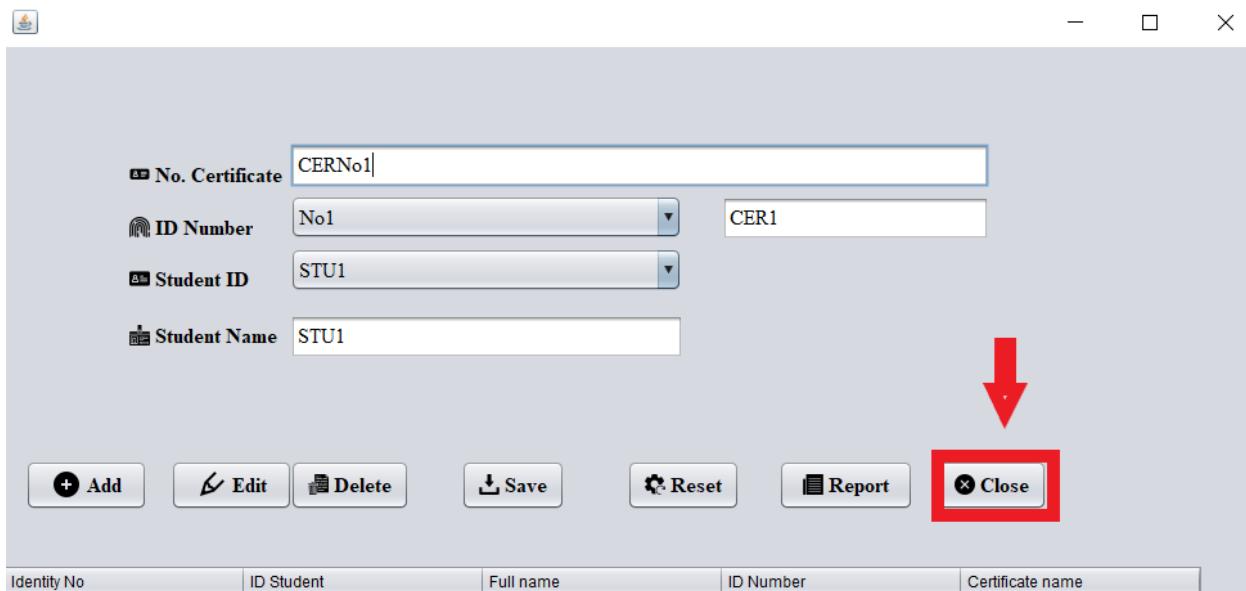


Figure 4.56: Click the button “add” in Management Certificate Store

4.8 Management User

- Step 1: In form system management certificate.
Click the button “Management User”.

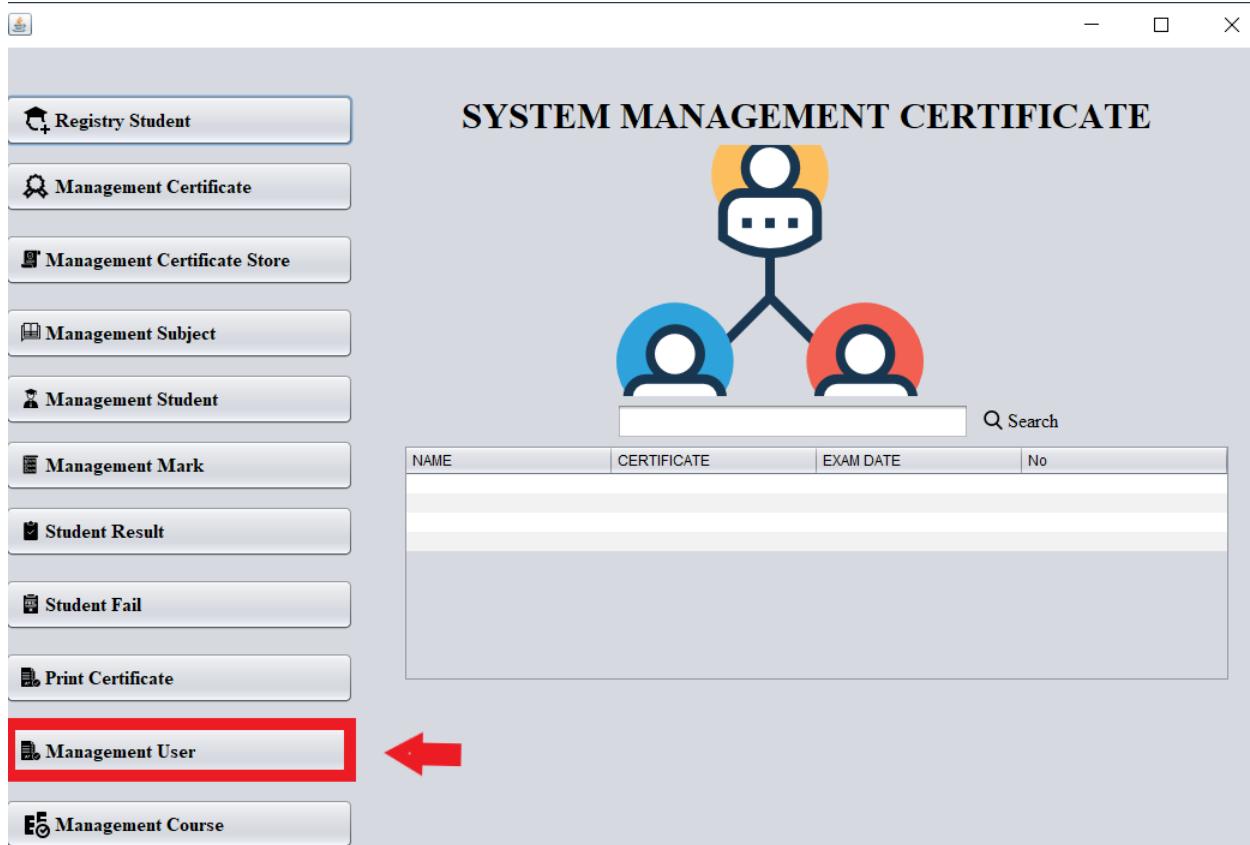


Figure 4.57: Click the button “Management User”

- Step 2: Display form Management User.

The screenshot shows a Windows application window titled "Management User". The main area contains several input fields and dropdown menus:

- ID User:** US1
- Gender:** Male (radio button selected)
- Username:** [empty]
- Day Of Birth:** Nov 26, 2019
- Password:** [redacted]
- Phone:** [empty]
- Roles:** Admin
- Email:** [empty]
- Full Name:** [empty]
- Address:** [empty]

Below these fields are buttons for **Add**, **Edit**, **Delete**, **Save**, **Reset**, and **Close**.

A table at the bottom lists four existing users:

ID	Username	Password	Roles	Full name	Gender	DOB	Phone	Email	Address
US2	NLKhanh	010000003...	Staff	KHANH N...	FEMALE	1990-12-03	123456789	NLKhanh...	CAN THO
US3	TTTHANG	01000000D...	Keeper	THANG TO...	MALE	1990-12-03	123456789	TTTHANG...	CAN THO
US4	NPTHANH	0100000052...	Admin	THANH NG...	FEMALE	1990-12-03	123456789	NPTHANH...	CAN THO

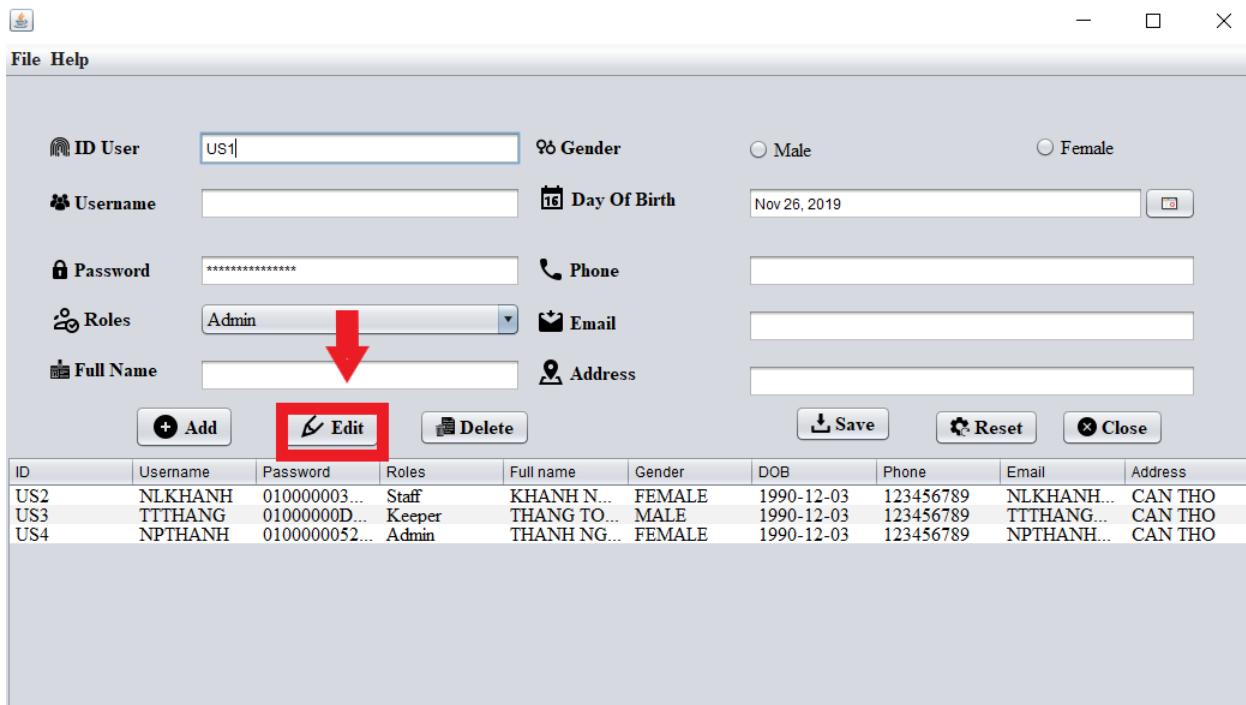
Figure 4.58: Form Management User

- Step 3: User want add information user (THE SAME STEP 3 – 4.2).

The screenshot shows the same "Management User" application window as Figure 4.58. A red arrow points to the **+ Add** button, which is highlighted with a red box. The rest of the interface and data table are identical to Figure 4.58.

Figure 4.59: Click the button “add” in Management User

- Step 4: User want edit information user (THE SAME STEP 4 – 4.2).



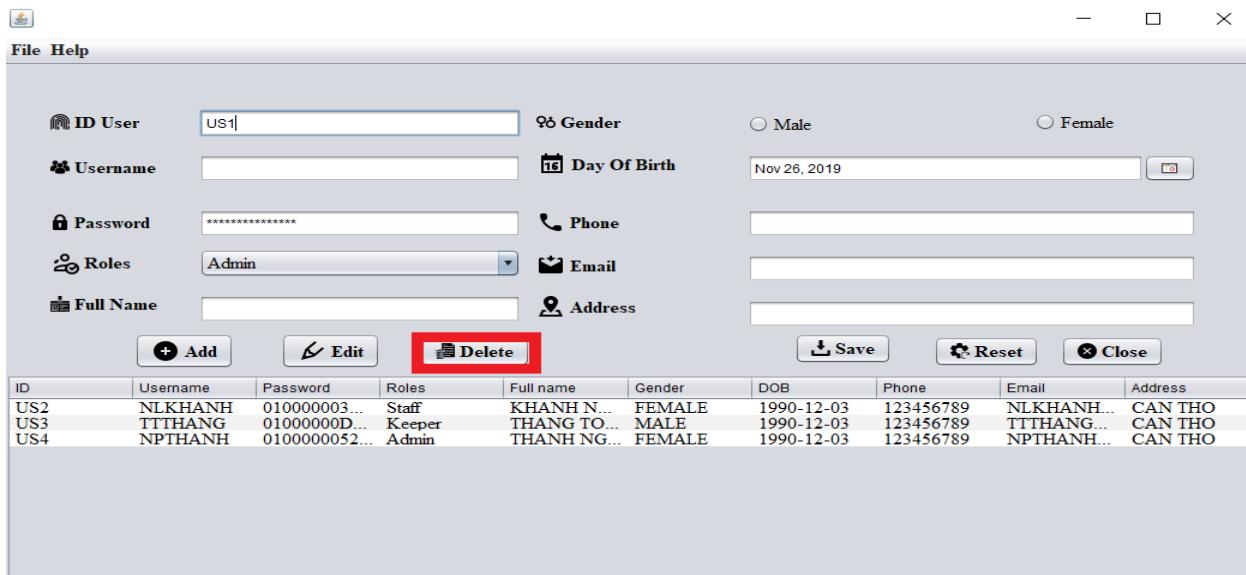
The screenshot shows a Windows application window titled "File Help". Inside, there's a form for managing user information. At the top, there are fields for ID User (US1), Gender (Male/Female), Username, Day Of Birth (Nov 26, 2019), Password, Phone, Roles (Admin), Email, Full Name, and Address. Below the form is a table listing users:

ID	Username	Password	Roles	Full name	Gender	DOB	Phone	Email	Address
US2	NLKHANH	010000003...	Staff	KHANH N...	FEMALE	1990-12-03	123456789	NLKHANH...	CAN THO
US3	TTTHANG	01000000D...	Keeper	THANG TO...	MALE	1990-12-03	123456789	TTTHANG...	CAN THO
US4	NPTHANH	0100000052...	Admin	THANH NG...	FEMALE	1990-12-03	123456789	NPTHANH...	CAN THO

At the bottom of the form, there are buttons for Add, Edit, Delete, Save, Reset, and Close. The "Edit" button is highlighted with a red arrow pointing to it.

Figure 4.60: Click the button “edit” in Management User

- Step 5: User want delete information user (THE SAME STEP 5 – 4.2).



This screenshot is identical to Figure 4.60, showing the Management User interface. The "Delete" button at the bottom of the form is highlighted with a red arrow.

Figure 4.61: Click the button “delete” in Management User

- Step 6: User want close form (THE SAME STEP 7 – 4.2).

The screenshot shows a Java Swing application window titled "Management User". The window has a menu bar with "File" and "Help" options. The main area contains several input fields and buttons:

- ID User: US1
- Gender: Male (radio button selected)
- Username: (empty field)
- Day Of Birth: Nov 26, 2019
- Password: (redacted)
- Phone: (empty field)
- Roles: Admin (dropdown menu)
- Email: (empty field)
- Full Name: (empty field)
- Address: (empty field)

Below the form is a table with the following data:

ID	Username	Password	Roles	Full name	Gender	DOB	Phone	Email	Address
US2	NLKhanh	010000003...	Staff	KHANH N...	FEMALE	1990-12-03	123456789	NLKhanh...	CAN THO
US3	TTTHANG	01000000D...	Keeper	THANG TO...	MALE	1990-12-03	123456789	TTTHANG...	CAN THO
US4	NPTHANH	0100000052...	Admin	THANH NG...	FEMALE	1990-12-03	123456789	NPTHANH...	CAN THO

Figure 4.62: Click the button “add” in Management User

4.9 Management Course

- Step 1: In form system management certificate. Click the button “Management Course”.

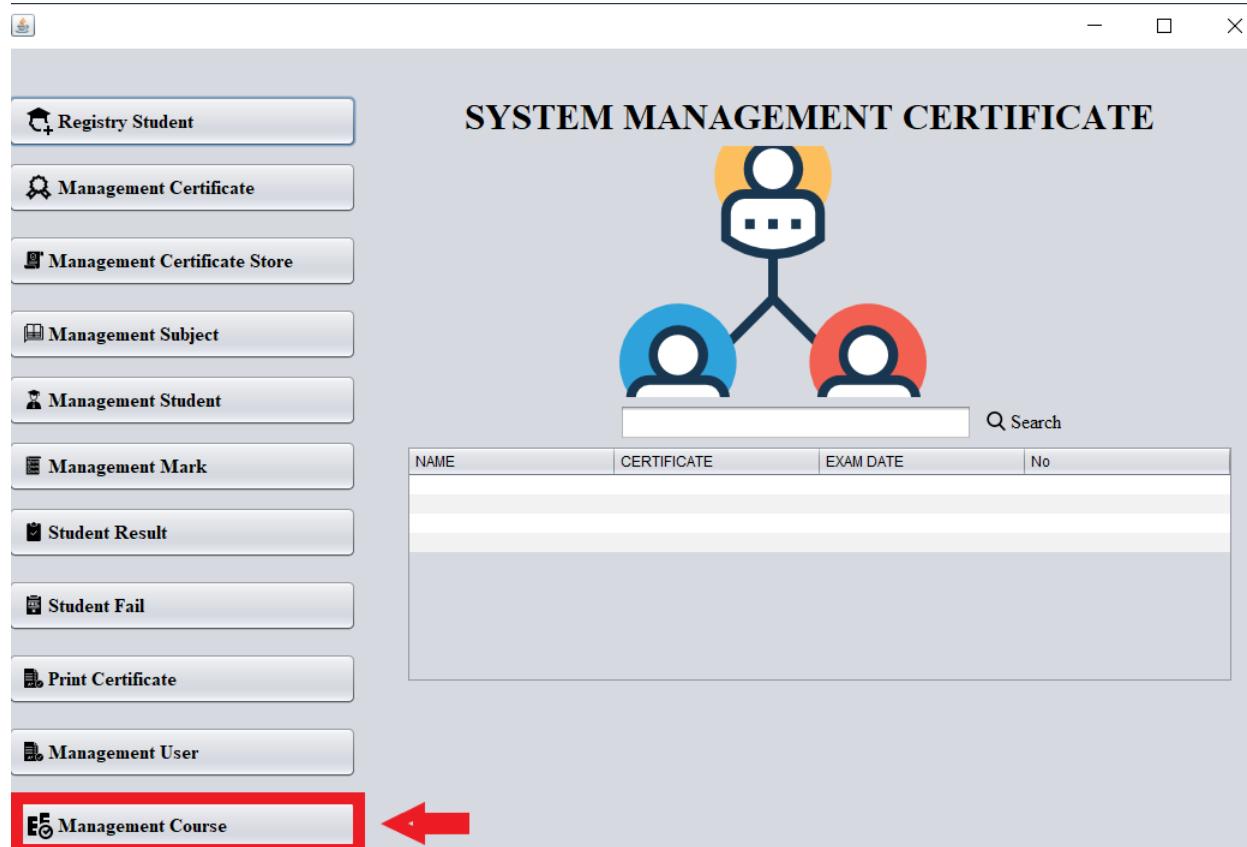


Figure 4.63: Click the button “Management Course”

- Step 2: Display form Management Course.

The screenshot shows a Windows application window titled "Management Course". At the top, there are fields for "Exam of Date" (set to Nov 26, 2019) and "Course of Exam" (empty). Below these are buttons for "Add", "Edit", "Delete", "Save", "Reset", "Report", and "Close". A table below lists courses by exam date:

EXAM DATE	COURSE NAME
2020-01-01	THIS IS COURSE A, B, C ... FRANCE
2020-01-14	THIS IS COURSE A, B, C ... ENGLISH
2020-01-30	THIS IS COURSE A, B, C ... COMPUTER PROGRAMMER
2020-03-01	THIS IS COURSE A, B, C ... COMPUTER PROGRAMMER

Figure 4.64: Form Management Course

- Step 3: User want add information course (THE SAME STEP 3 – 4.2).

The screenshot shows the same "Management Course" application window as Figure 4.64. A large red arrow points to the "Add" button at the bottom left of the control panel. The rest of the interface is identical to Figure 4.64.

Figure 4.65: Click the button “add” in Management Course

- Step 4: User want edit information course (THE SAME STEP 4 – 4.2).

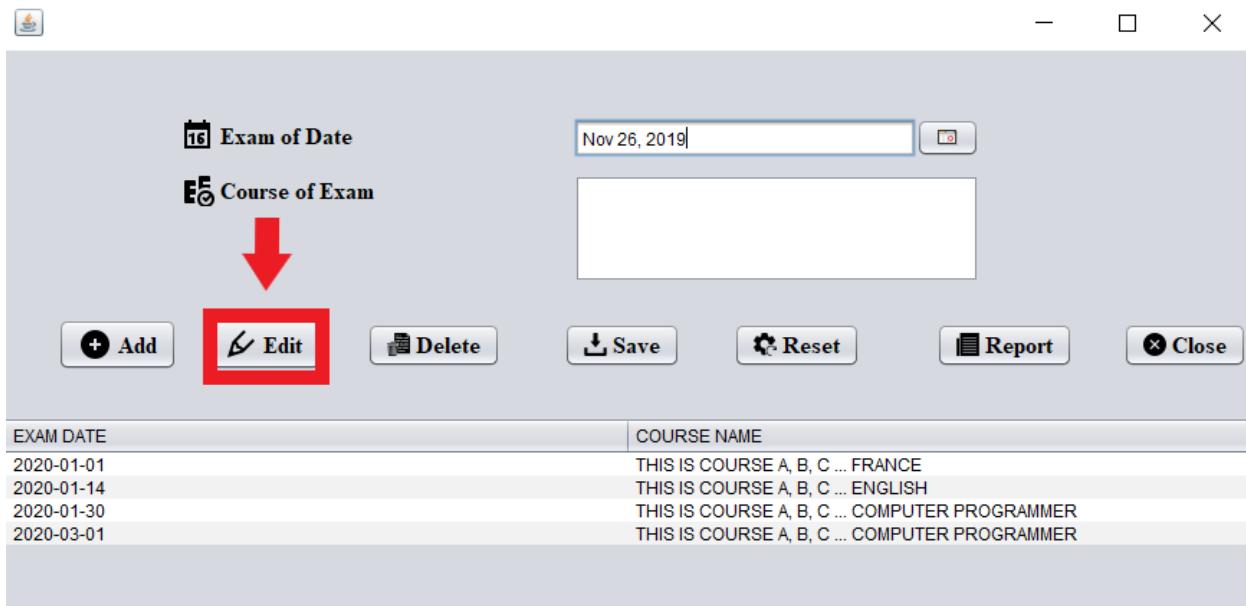


Figure 4.66: Click the button “edit” in Management Course

- Step 5: User want delete information course (THE SAME STEP 5 – 4.2).

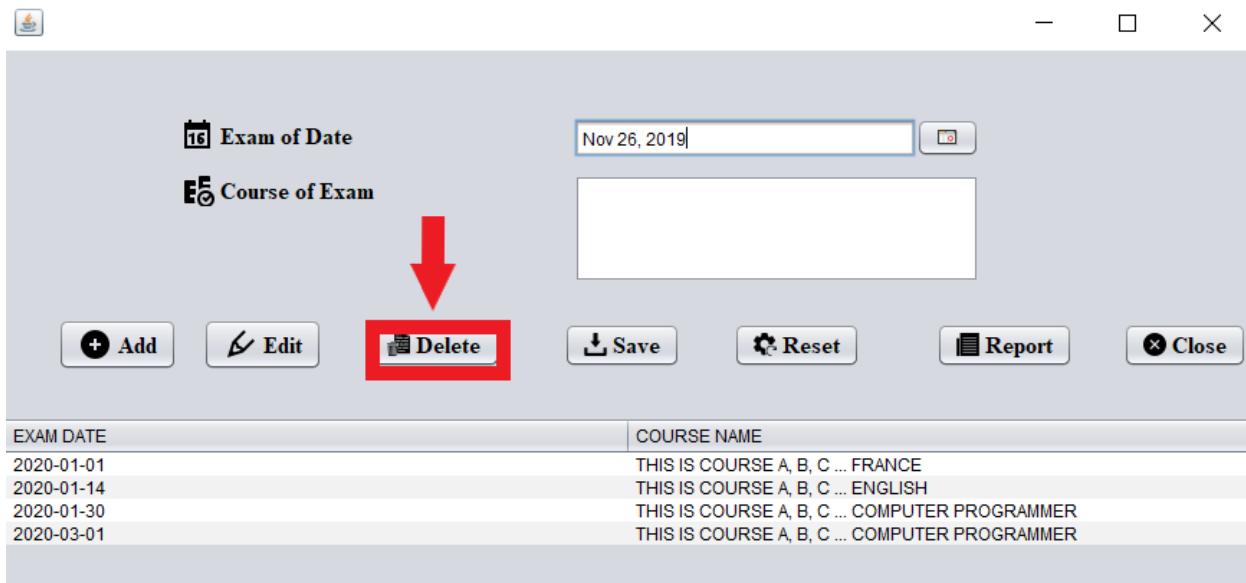
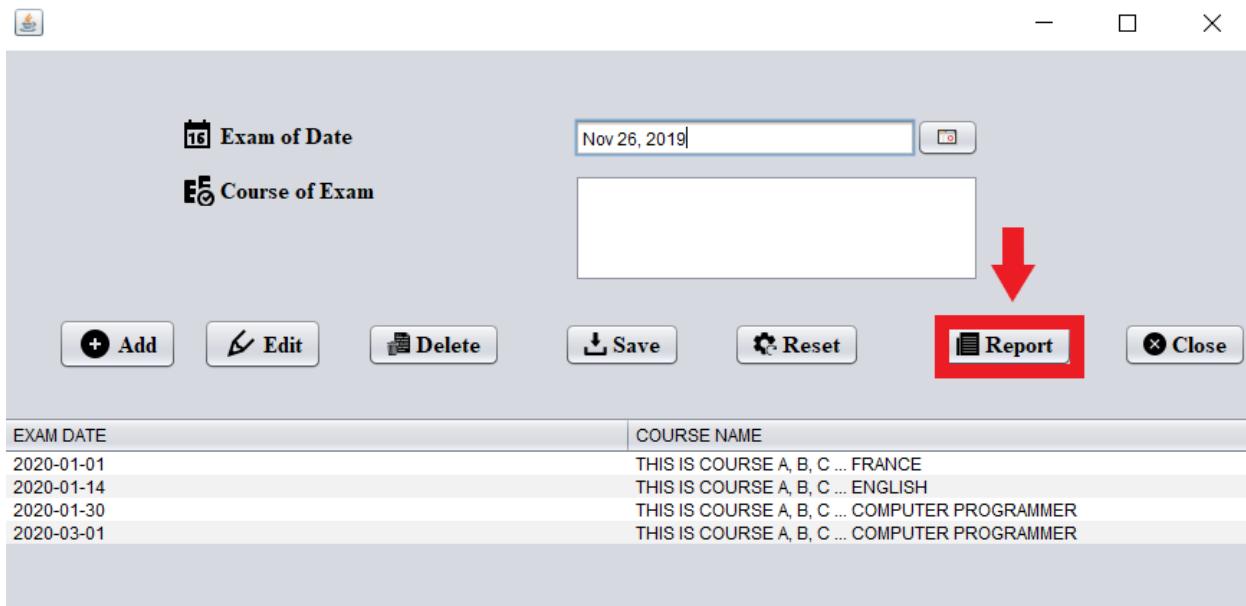


Figure 4.67: Click the button “delete” in Management Course

- Step 6: User want report information course (THE SAME STEP 6 – 4.2).

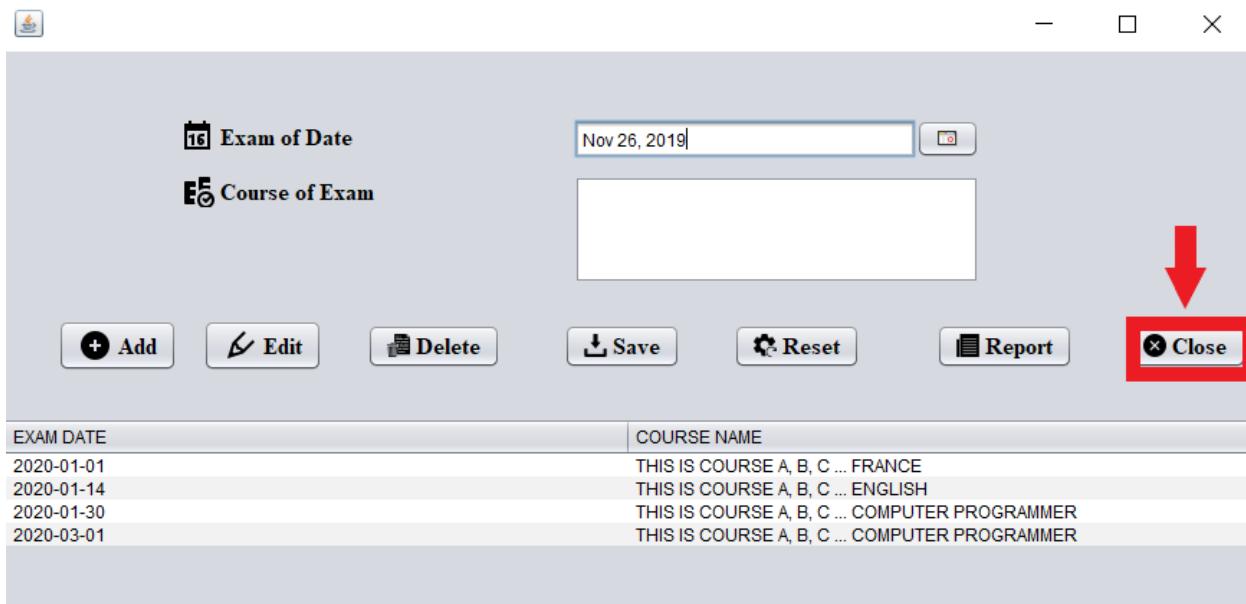


The screenshot shows a software window titled "Management Course". At the top, there are fields for "Exam of Date" (set to Nov 26, 2019) and "Course of Exam" (empty). Below these are several buttons: "+ Add", "Edit", "Delete", "Save", "Reset", "Report" (which is highlighted with a red box and a red arrow pointing to it), and "Close". A table below lists exam dates and course names:

EXAM DATE	COURSE NAME
2020-01-01	THIS IS COURSE A, B, C ... FRANCE
2020-01-14	THIS IS COURSE A, B, C ... ENGLISH
2020-01-30	THIS IS COURSE A, B, C ... COMPUTER PROGRAMMER
2020-03-01	THIS IS COURSE A, B, C ... COMPUTER PROGRAMMER

Figure 4.68: Click the button “report” in Management Course

- Step 7: User want close form (THE SAME STEP 3 – 4.2).



The screenshot shows the same software window as Figure 4.68. The "Report" button has been clicked, and now the "Close" button at the bottom right is highlighted with a red box and a red arrow pointing to it. The rest of the interface and data table remain the same.

Figure 4.69: Click the button “close” in Management Course

4.10 Student Result.

- Step 1: In form system management certificate. Click the button “Student Result”.

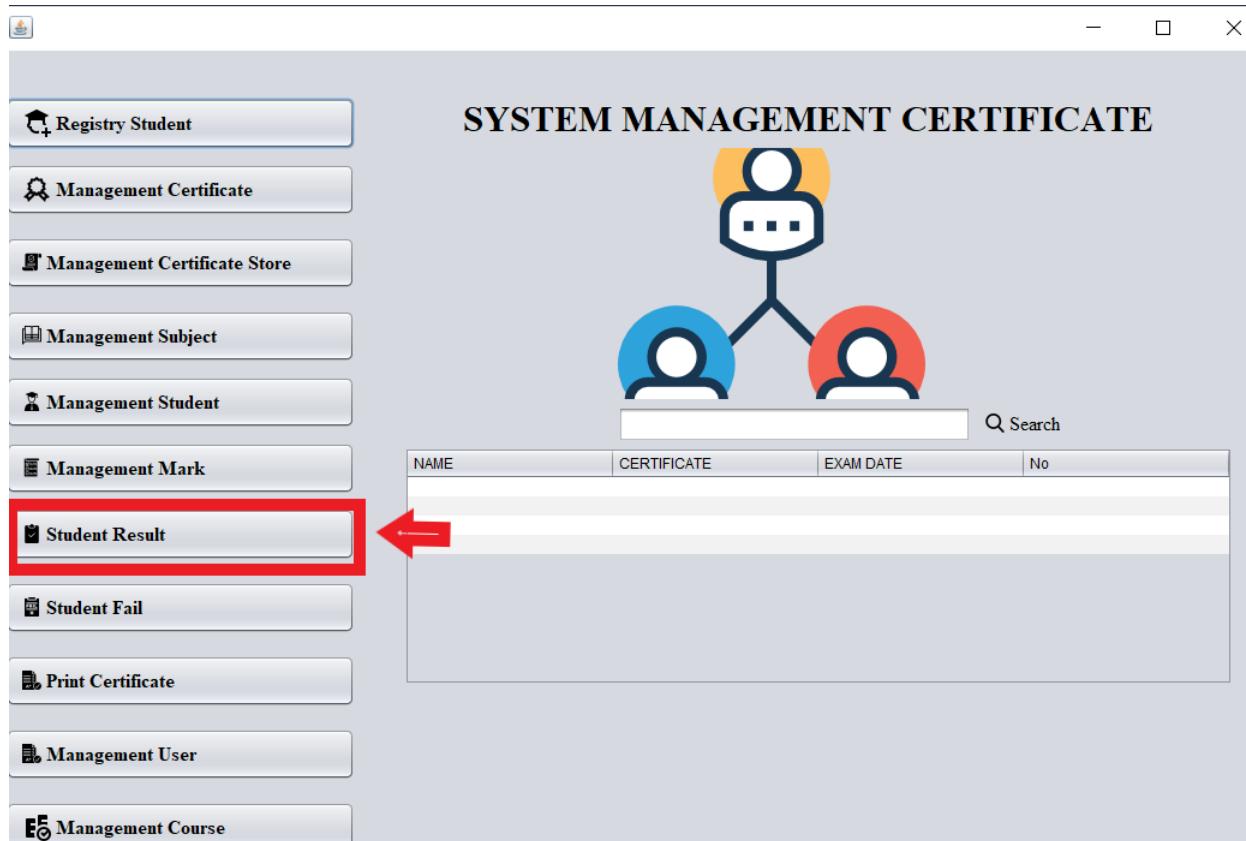


Figure 4.70: Click the button “Student Result”

- Step 2: Display form Student Result

The screenshot shows a report titled 'Sum of Pass' with a value of '2'. There are three buttons: 'Report' (highlighted in blue), 'Close', and a small circular icon. Below the buttons is a table with the following data:

ID Student	Full name	ID Certificate	Certificate ...	Exam of da...	ID of numb...	AVG Mark	Grade
STU1	Le Van Qu...	CER1	ENGLISH ...	2020-01-14	No1	5.0	C
STU3	Doan Van ...	CER3	ENGLISH ...	2020-01-30	No4	8.0	A

Figure 4.71: Form Student Result

- Step 3: User want report Student Result

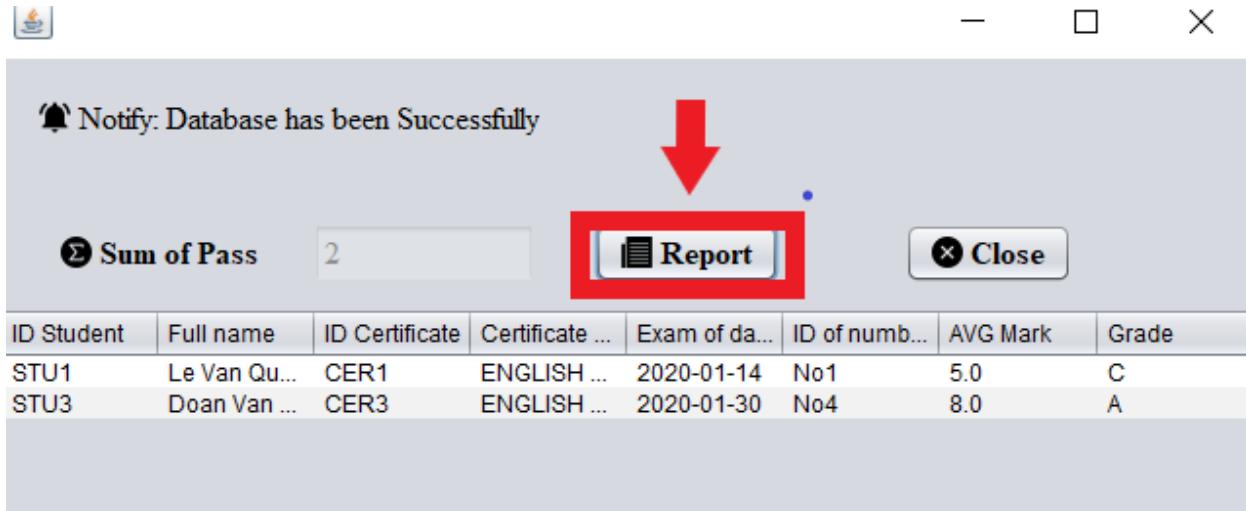


Figure 4.72: Click the button “Report” in Student result

After clicking the button “Report”

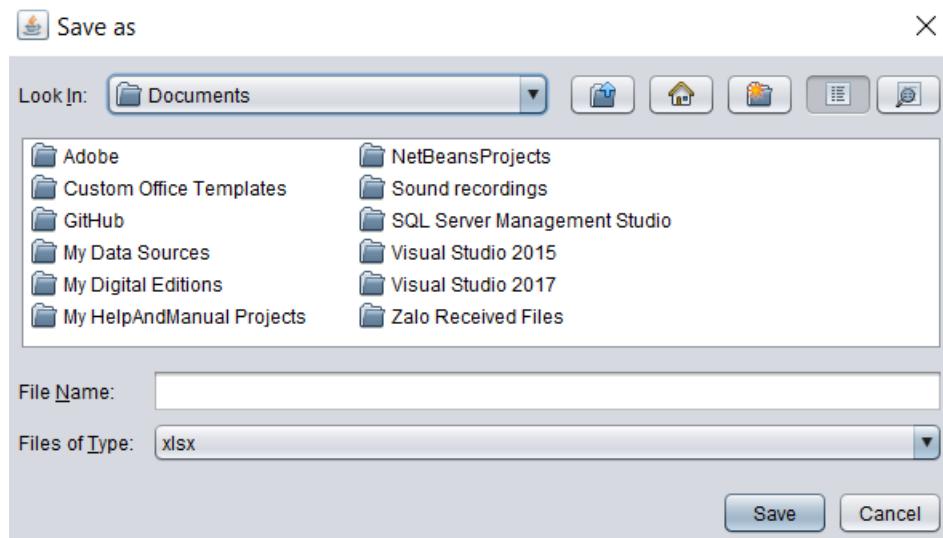


Figure 4.73: After clicking the button “Report”

- Step 4: User want close form.

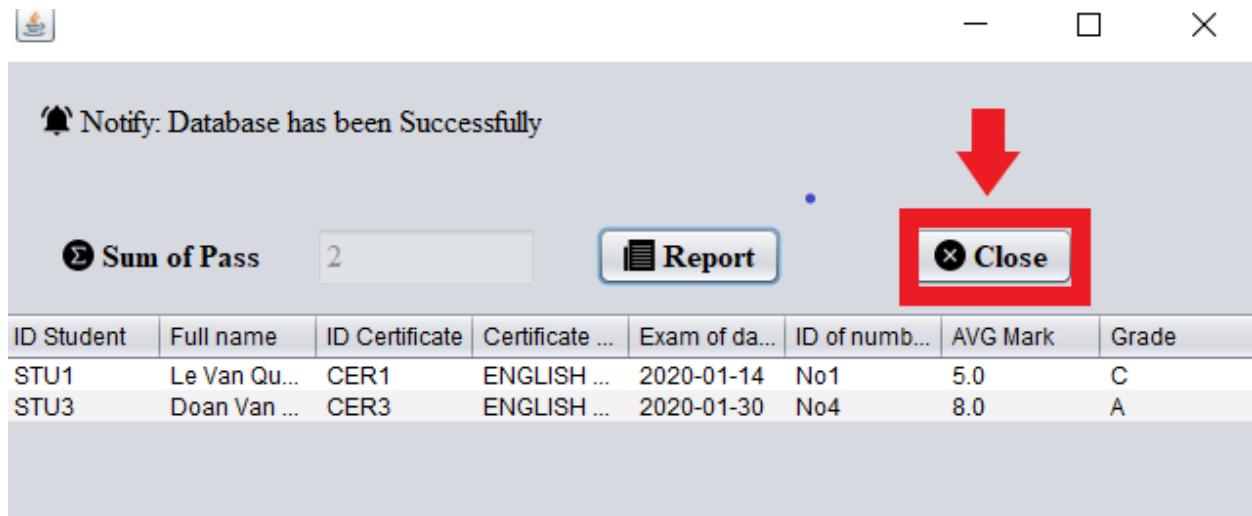


Figure 4.74: Click the button “close” in student result

4.11 Student Fail.

- Step 1: In form system management certificate. Click the button “Student Fail”.

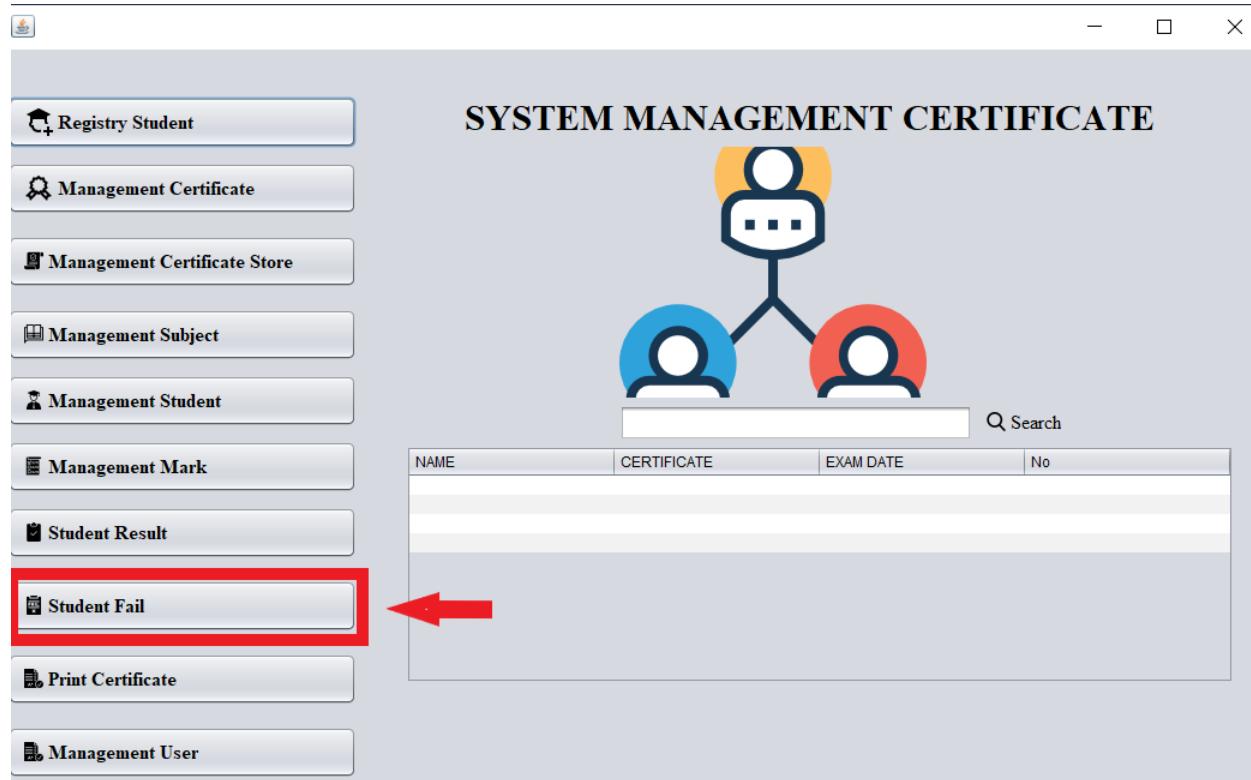


Figure 4.75: Click the button “Student Fail”

- Step 2: Display form Student Fail.

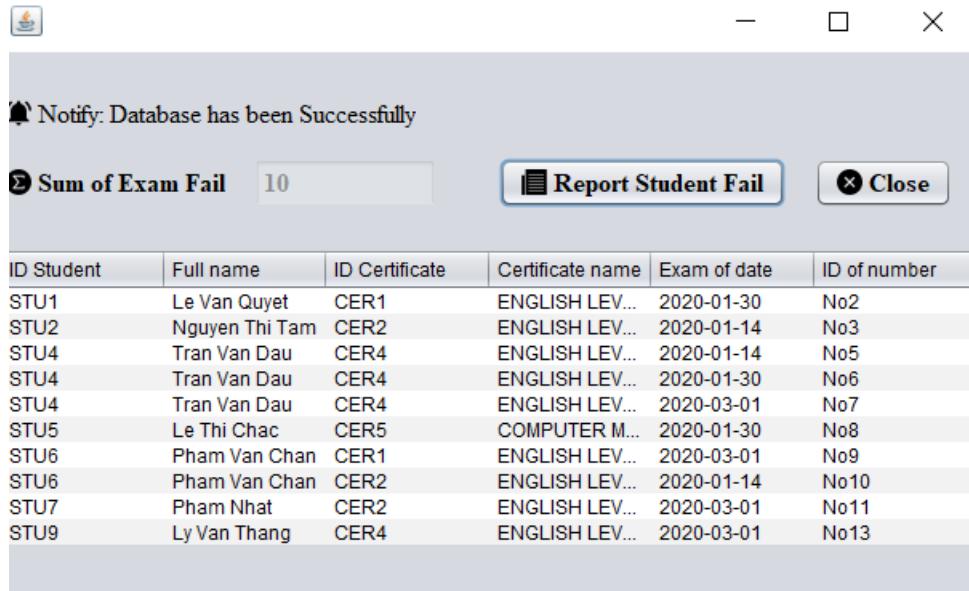


Figure 4.76: Form Student Fail

- Step 3: User want report Student Fail.

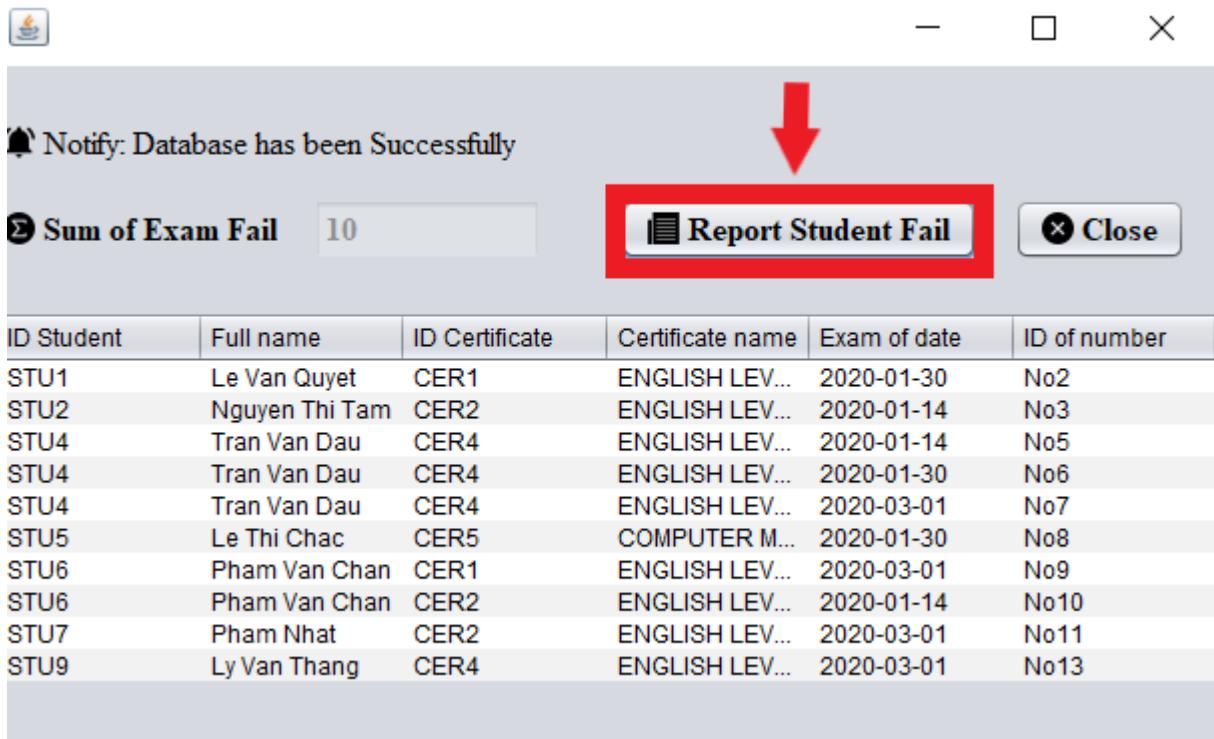


Figure 4.77: Click the button “Report Student Fail”

After clicking the button “Report”.

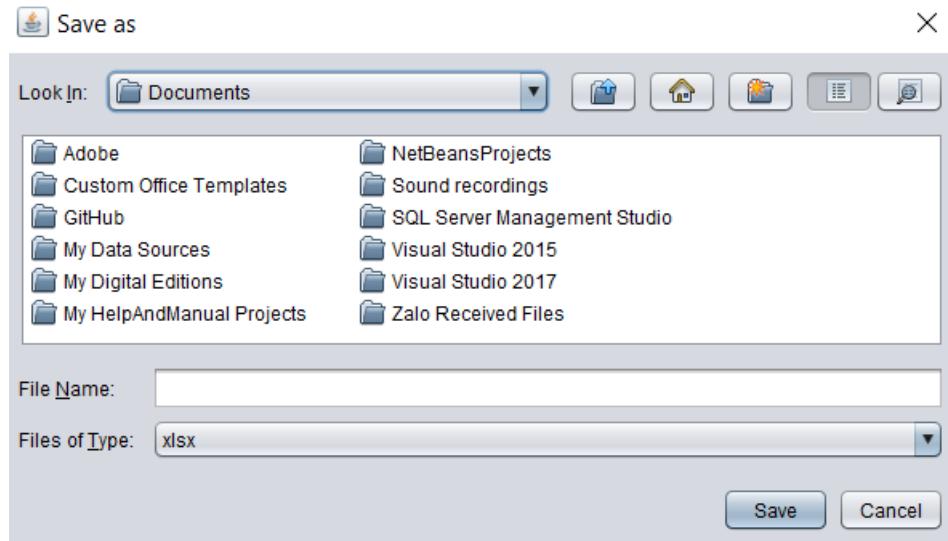


Figure 4.78: After click the button “Report Student Fail”

- Step 4: User want close form

A screenshot of a software application window titled 'Sum of Exam Fail'. The window shows a table of student fail data. At the top right, there is a button labeled 'Report Student Fail' and a red rectangular box containing a 'Close' button with a red arrow pointing to it. The table has columns: ID Student, Full name, ID Certificate, Certificate name, Exam of date, and ID of number. The data is as follows:

ID Student	Full name	ID Certificate	Certificate name	Exam of date	ID of number
STU1	Le Van Quyet	CER1	ENGLISH LEV...	2020-01-30	No2
STU2	Nguyen Thi Tam	CER2	ENGLISH LEV...	2020-01-14	No3
STU4	Tran Van Dau	CER4	ENGLISH LEV...	2020-01-14	No5
STU4	Tran Van Dau	CER4	ENGLISH LEV...	2020-01-30	No6
STU4	Tran Van Dau	CER4	ENGLISH LEV...	2020-03-01	No7
STU5	Le Thi Chac	CER5	COMPUTER M...	2020-01-30	No8
STU6	Pham Van Chan	CER1	ENGLISH LEV...	2020-03-01	No9
STU6	Pham Van Chan	CER2	ENGLISH LEV...	2020-01-14	No10
STU7	Pham Nhat	CER2	ENGLISH LEV...	2020-03-01	No11
STU9	Ly Van Thang	CER4	ENGLISH LEV...	2020-03-01	No13

Figure 4.79: Click the button “close” in student fail

4.12 Change Password

- Step 1: Click the button “Change Password” in form Management Mark.

ID Subject	Subject name	ID Number	Full name	Mark of Exam
SBJ1	Listening A	No1	Le Van Quyet	5.0
SBJ3	Reading A	No2	Le Van Quyet	3.0
SBJ7	Reading D	No4	Doan Van Chien	8.0
SBJ7	Reading D	No5	Tran Van Dau	3.0
SBJ8	Writing D	No5	Tran Van Dau	4.0

Figure 4.80: Click the button “Change Password” in form Management Mark

- Step 2: Select user want change password

Figure 4.81: Select user want change password

- Step 3: Enter Current password, new password and Confirm Password. And click the button “Change”.

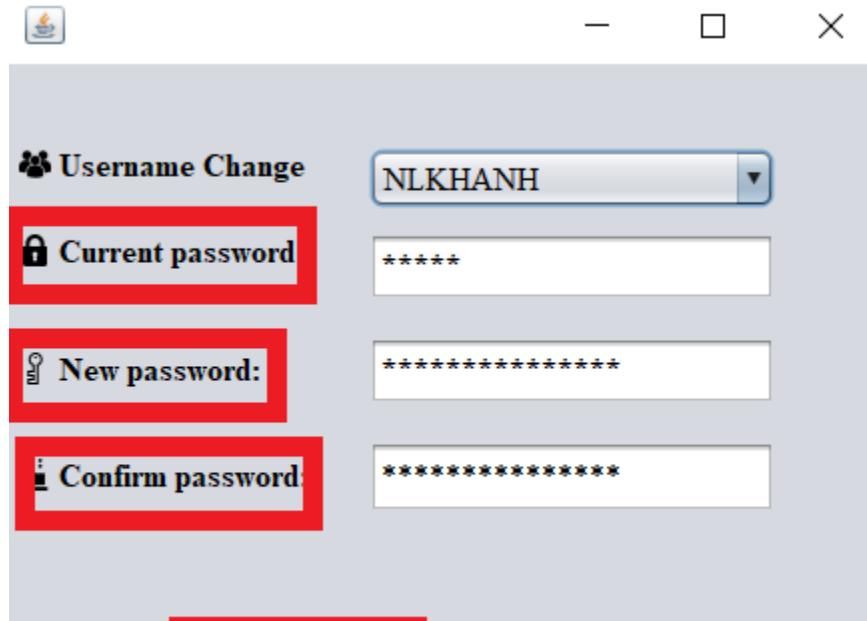


Figure 4.82: Enter Current password, new password and Confirm Password. And click the button “Change”.

- Step 4: User want close change password.

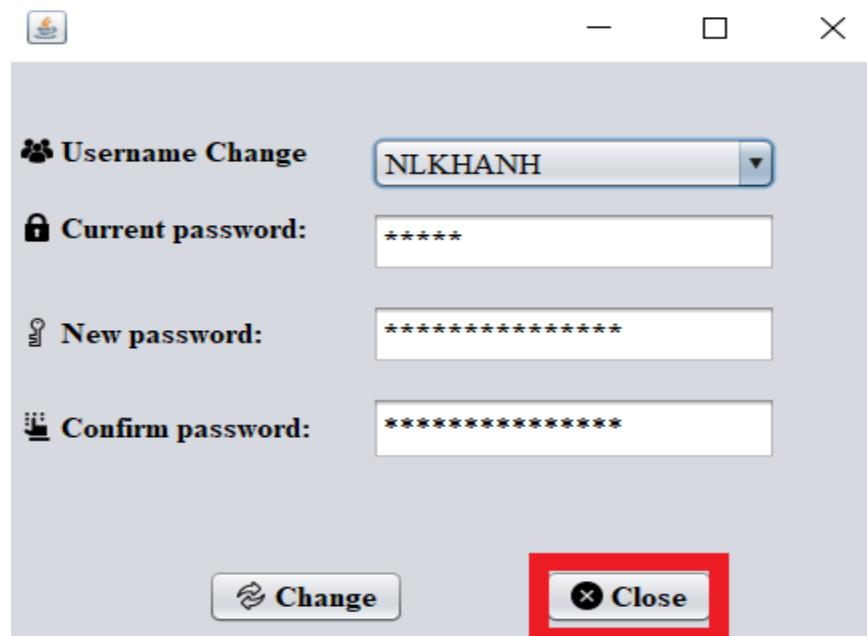


Figure 4.83: Click the button “close” in change password

After clicking the button “close” in change password. Back to form Management Mark

4.13 Print Certificate.

- Step 1: In form system management certificate. Click the button “Print Certificate”.

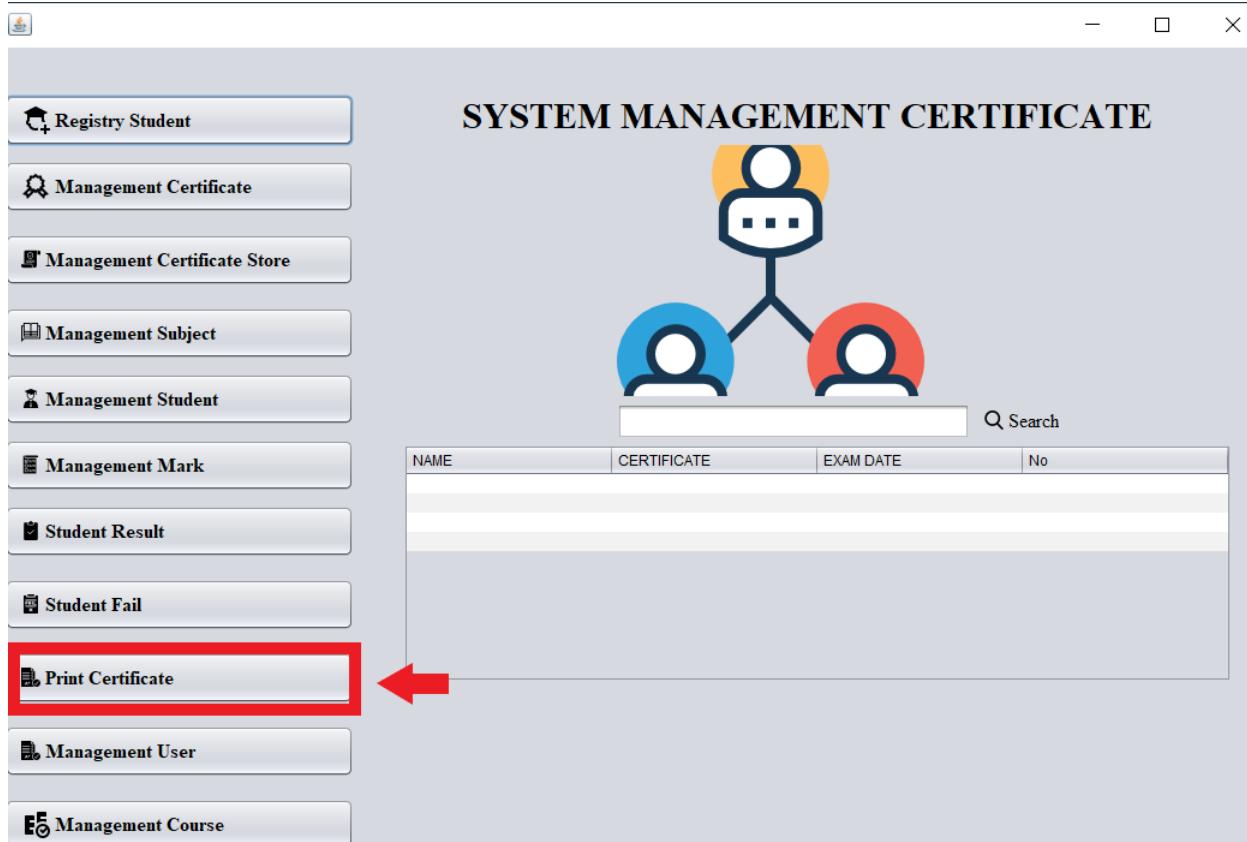


Figure 4.84: Click the button “Print Certificate”

- Step 2: Display Form “Print Certificate”.

The screenshot shows a software application window titled "Print Certificate". At the top left is a logo of a torch. To its right are standard window control buttons for minimize, maximize, and close. Below the title bar, there is a search bar labeled "Identity of number" with a placeholder text field, a "Search" button with a magnifying glass icon, and two other buttons labeled "Exam Result" and "Print". The "Print" button has a printer icon. To the right of these are "Print" and "Close" buttons, each with a corresponding icon.

The main content area contains the following text and graphics:

THE SOCIALIST REPUBLIC OF VIETNAM
THE RECTOR OF ABC INSTITUTE
confers
THE CERTIFICATE

CONFERS

CONFERS CONFERS

DATE OF BIRTH CONFERS

PLACE OF BIRTH CONFERS

DATE OF EXAM CONFERS

GRADE CONFERS

CER.No CONFERS

Figure 4.85: Form Print Certificate

- Step 3: Enter Identity of number in the search text and click the button “Search”. Display information certificate of student.



Figure 4.86: Enter Identity of number in the search text and click the button “Search”

- Step 4: Clicking the button “Exam Result”. Display form “Student Result”.



Figure 4.87: Clicking the button “Exam Result”. Display form “Student Result”

- Step 5: Display form after clicking the button “Print”. Select a print type and click the button “OK” or “Cancel”.

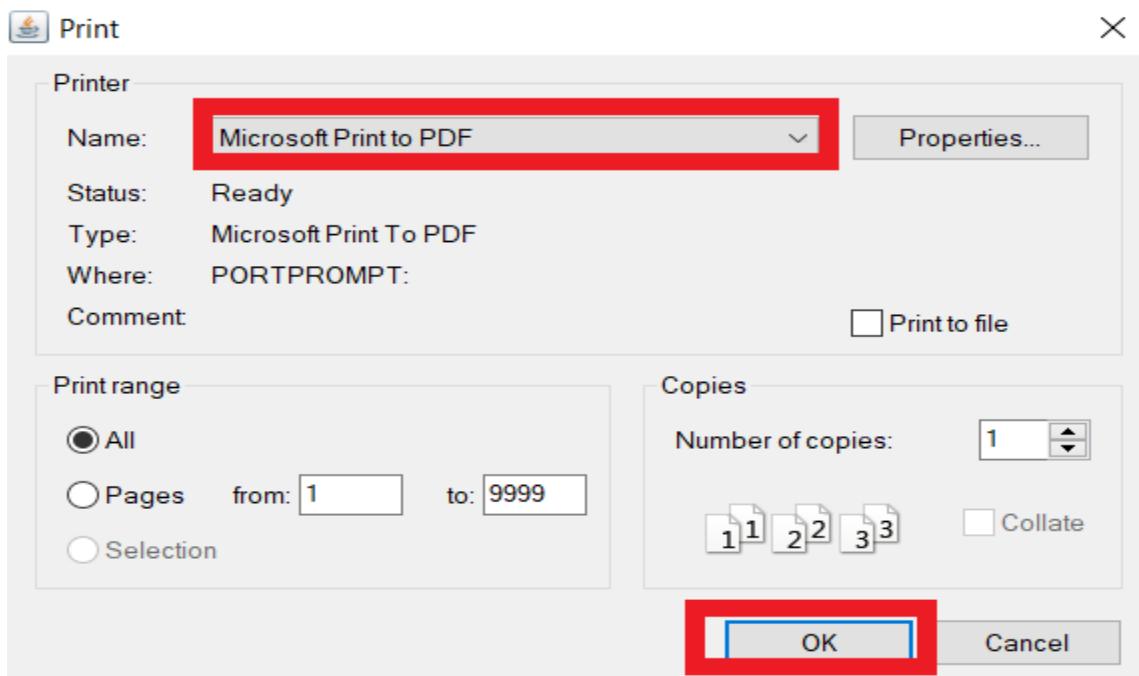


Figure 4.88: Display form after clicking the button “Print”