



<b>Design Plan: Certificate Management System</b>	<b>Document Name: Problem Definition</b>	<b>SWD/Form No. 1</b>
<b>Effective Date: Oct 15<sup>th</sup>, 2019</b>	<b>Version: 1</b>	<b>Page No. 1 of 1</b>

## DEFINITION OF THE PROBLEM

### Problem definition of CERTIFICATE GENERATION SYSTEM Soft

#### Application:

The Certificate Department 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.

After that the student had registered, they must take an exam for each subject. The role of the exam center will be produce the certificate for the students.

It should also check whether the students have given the exam, if he/she has not given one exam, the certificate for the particular should not get printed instead it should generate the appropriate message to the students for that.

This mean the students have one year after he/she given one exam date, If the exam of the students has been failed or he/she have a special case and must take pause, they will be to take one more exam. The center exam will message the students which extend the date of the exam. If that times the exam is not successful, he/she needs to return registry for that certificate.

This form should be designed in such a way that it should contain name of the institute, name of the student, name of the certificate and exam date.

However, they also wishes that when he/she have issued certificate for the students. So, when he/she get a job or apply to a company. Because of the concern that students are actually granted a certificate at this institute, that company may be look up the information of her/him certificate when it was contact to institute.

The Certificate management system application will be provided the functions:

- User can search Class view description of a selected Class, and Class, update Class and delete Class.
- User will be able to search and generate report of Certificate Type, Student, and Certificate.
- User will be register for the student.

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<b>Design Plan: Certificate Management System</b>	<b>Document Name: CRS</b>	<b>SWD/Form No. 2A</b>
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## CUSTOMER REQUIREMENT SPECIFICATION DOCUMENT

**Client/ Project Undertaken: Certificate Generation System**

### 1. List of inputs to the system

STUDENT (StudentID, StudentName, Address, DOB, Phone, Email, IdentityCard, Gender)  
 COURSE (CourseID, CourseName)  
 CERTIFICATE (CertificateID, CertificateName)  
 COURSE\_CER (CourseID, CertificateID, Date)  
 SUBJECT (SubjectID, SubjectName, *CertificateID*)  
 EXAMREGISTRY (StudentID, CourseID, CertificateID, Result)  
 EXAMMARK (StudentID, CourseID, CertificateID, SubjectID, Mark)  
 USER (UserID, Password, Address, DOB, Phone, Email, IdentityCard, Gender)

### 2. List of outputs expected from the system

- It should contain fields like (Student, Course, Certificate and Result) will be display in Certificate for the students.
- After testing the student's detail of each certificate. Once the marks of the students is evaluated then the entry of the marks is done in this application system. Exam Center will be enter mark for detail of each certificate then the status of the pass or fail will be display (exam course, mark, detail certificate).

### 3. Overview of processes involved in the system

- Check registry input from student and login, logout user.
- Get the students selected by admin add to form registered.
- Get detail of each certificate selected by the students add to form result of exam.
- Calculate the mark of each subject for the students and check exam of the student.
- Check valid of the certificate for the students.
- User must create to list of the student who was completed or failed the exam.
- User must create to list of the student who need to reserve that exam course after test date for within a year.
- Check domain, reference of database.
- *HELP (It should display the short explanation of the project in order to guide the end user).*

### 4. Hardware and software required for implementing the project

- **Hardware Requirements:**
  - a. Server:
    - CPU: Intel Core i3-2130U, 2.5GHz
    - RAM: 4GB or higher

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<b>Design Plan: Certificate Management System</b>	<b>Document Name: Final checklist</b>	<b>SWD/Form No. 2A</b>
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- HDD: 120GB Hard Disk space or higher
- b. Client:
  - CPU: Intel Core i3-2130U, 2.5GHz
  - RAM: 2GB or higher
  - HDD: 80GB Hard Disk space or higher
- **Software Requirements:**
  - c. Server:
    - Windows Server 2012 R2 (or higher).
    - Microsoft SQL Server 2012 (or higher).
    - JDBC, JDBC Driver 4, JDK 1.8 (or higher).
    - Netbeans IDE 8.2 (or higher).
  - d. Client:
    - Windows 7 (or higher)
    - Microsoft SQL Server 2012 (or higher).
    - JDBC, JDBC Driver, JDK 1.8 (or higher).
    - Netbeans IDE 8.2 (or higher)

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<b>Design Plan: Certificate Management System</b>	<b>Document Name: Customer's Acceptance Criteria</b>	<b>SWD/Form No. 2B</b>
<b>Effective Date: Oct 15<sup>th</sup>, 2019</b>	<b>Version: 1</b>	<b>Page No. 1 of 1</b>

### CUSTOMER'S ACCEPTANCE CRITERIA

<b>S. No</b>	<b>Customer's Acceptance Criteria</b>
<b>1.</b>	User Login, logout check valid of form
<b>2.</b>	Enter the mark detail of each certificate from form Marks
<b>3.</b>	Create, update, delete and edit a registry form for the students, users
<b>4.</b>	Design, create, update, modify, security and maintain database system
<b>5.</b>	Produce the certificate for the students
<b>6.</b>	It should generate the appropriate message to the students for the particular should not get certificate for the students.
<b>7.</b>	Here the students result is to be displayed.
<b>8.</b>	Valid of certificate for the students.
<b>9.</b>	Database must back up, update, upgrade regularly.

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<b>Design Plan: Certificate Management System</b>	<b>Document Name: Project Plan</b>	<b>SWD/Form No. 3</b>
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## PROJECT PLAN

### 1. Project Details

- **Name of the Client:** *Certificate Generation System*
- **Date of Project Plan:** October 9<sup>th</sup>, 2019
- **Project Vision/ Objectives:**

(Define the project vision/ objectives as stated by the client)

**Project Vision:** *The Certificate Department works for the "ABC" institute to developing the certification system for the students who have completed the exam.*

**Project Objectives:**

- The solutions to overcome difficult problem of current. They need to increase the efficiency and accuracy.
- Talking pressure off staff who have too much paperwork.
- Ensuring better communication between staff and Certificate department.
- Reducing boring and repetitive task.
- Reducing loss of data.

➤ **Scope:**

(Mention the scope of the project giving the locations that will be covered, processes, range of services, and so on.)

We will develop and implement certificate maps for the Certificate Department works for some center exam. Further, we will analyze and design student support processes and areas that increase students' ability to successfully navigate their way through their educational experience. We will be finished this project about December, 2019.

➤ **Our understanding of the client organization:**

(Give the range of services, functions, overview of processes, and so on.)

To overcome the above problem the organization had finally decided to computerize its certificate department. Organization wants following things to be implemented in the system. Here should be three logins.

- **User registry for the student.**
- **Certificate Cell.**

➤ **Project Organization with Responsibilities and Authorities:**

(Give the name of Project team members their roles and responsibilities.

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<b>Design Plan: Certificate Management System</b>	<b>Document Name: Project Plan</b>	<b>SWD/Form No. 3</b>
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<b>Members</b>	<b>Role and Responsibilities</b>
Nghi Dang Quang	<b>Analyst/ Designer/ Developer/ Tester</b>
Khanh Nguyen Le	<b>Analyst/ Implementation Engineer/ Developer/ Tester</b>
Thang To Toan	<b>Analyst/ Designer/ Developer/ Tester</b>
Thanh Nguyen Phuoc	<b>Analyst/ Implementation Engineer / Developer/ Tester</b>

## 2. Project Initiation/ Requirement Documents

(Information required from the Client as inputs regarding his system; could be the information about his services, processes.)

Generate information about Certificate for the students.

## 3. Deliverables

(The documents to be handed over to the client – like CRS, Design Document, Installation Manual, User Manual, Maintenance Manual, and Code documents.).

- File \*.jar, \*.sql, \*.mdf, \*.ldf

## 4. Project Dependencies

(Any event or task outside the scope of the project, which will affect the success of the project.)

- Depend on Data input
- Depend on System performance
- Depend on User
- Depend on Security Procedures

## 5. Major Project Milestones

(Generating CRS, Building a Prototype.)

- Keep Satisfied
- Keep Interested
- Data entry Staff Receptionists
- Manage closely

## 6. Quality Plan

- **Review Activities** (Review meeting participants, frequency): We will be meet participants about at least twice a week, each meeting there is a check for each member in group to review processing, help to solve and trouble

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## Certificate Generation

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- **Testing Activities** (Final Test): Test spell design document, test case design DFD and database, Function, Coding and Demo.
- **Backup and recovery strategies** (in case of disk crash, network failures): Save files on device storage (USB, HDD) and use GitHub to synchronize all document relative of project. Each member store a copy of project in their own computer and one in their mail drive.

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<b>Design Plan: Certificate Management System</b>	<b>Document Name: GUI Standards Document</b>	<b>SWD/Form No. 4</b>
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### **DOCUMENT DESIGN**

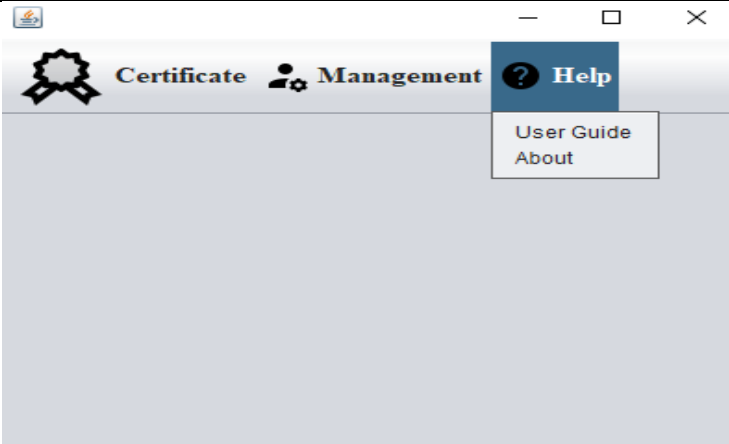
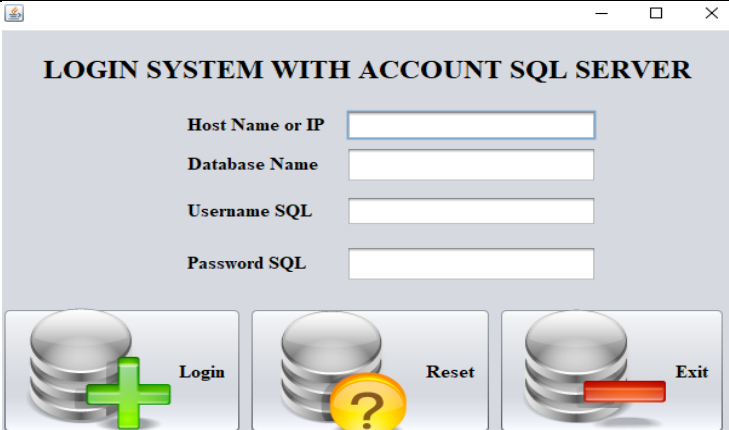
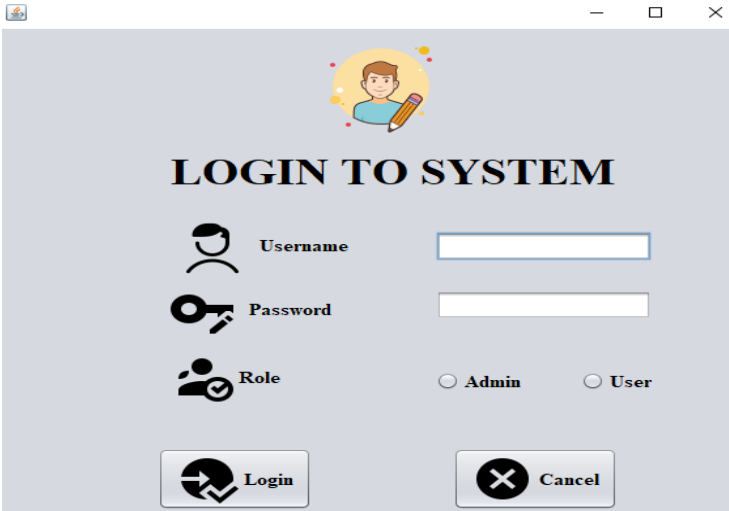
<b>PROPERTY</b>	<b>VALUE</b>
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Form-Background color	Light Gray
Title-Font Size	16
Title-Font Color	Blue
Title-Font Style	Times New Roman
Title-Alignment	Center
Background color of Controls on the form	White
Foreground color of Controls on the form	Black
Control Caption – Font Size	16
Control Caption – Font Color	Black
Control Caption – Font Style	Times New Roman
Control caption and controls-Alignment	Left
Command button-Alignment	Center

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<b>Design Plan: Certificate Management System</b>	<b>Document Name: Interface Design Document</b>	<b>SWD/Form No. 5</b>
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## INTERFACE DESIGN DOCUMENT

### 1. List of form to be created


Document Name	Description	Controls on the Document
frDatabase		
frLogSQL		
frUserlogin		


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frManager


 Management Student


 Management Certificate

 Registry

 Management Exam Course


 Management Subject


 Entry Mark

 Report Exam


# Certificate Check


Please enter ID Pass Code for check


 Search


 LogOut


frRegister



 Roll No :


 Full Name :


 Passport ID :


 E-mail :

 Phone :


 Exam Course :   Exam Date :


 Certificate ID :


 Registry


 Close



frEnMark


 Roll No :


 Full Name :


 Exam Course :


 Certificate ID :


 Detail Subject :   Mark:


 Add

 Edit

 Save

 Reset

 Delete

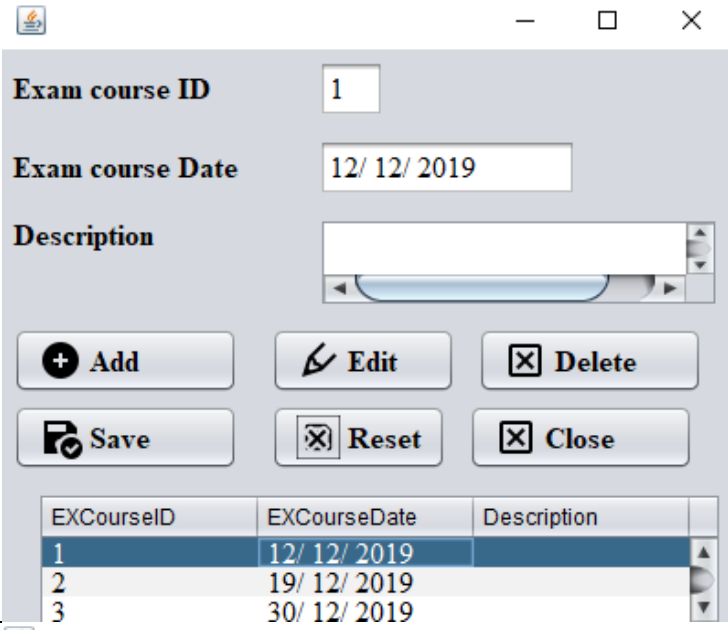
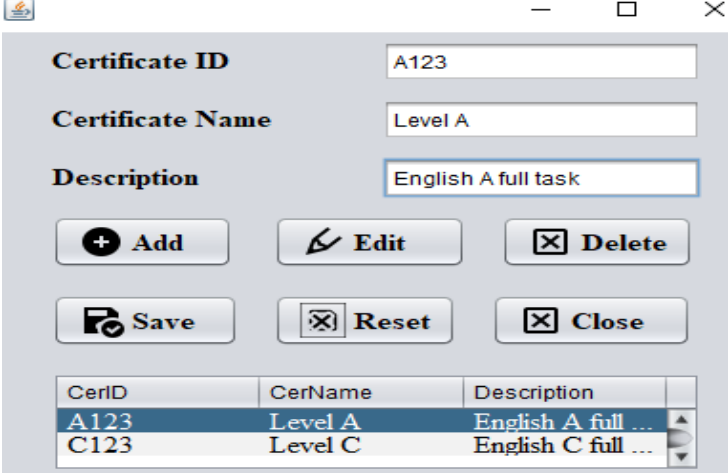
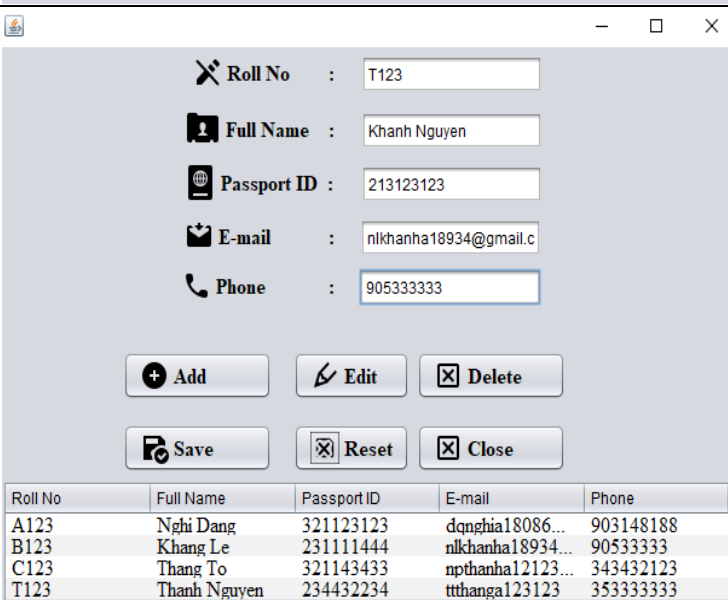
 Close

RollNo	Full Name	Exam Course	Certificate Na...	Detail Subject	Mark
A123	A Nguyen	A1	Level A	Listening	60
A123	A Nguyen	A1	Level A	Reading	30
A123	A Nguyen	A1	Level A	Speaking	90
A123	A Nguyen	A1	Level A	Writing	50

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# Certificate Generation

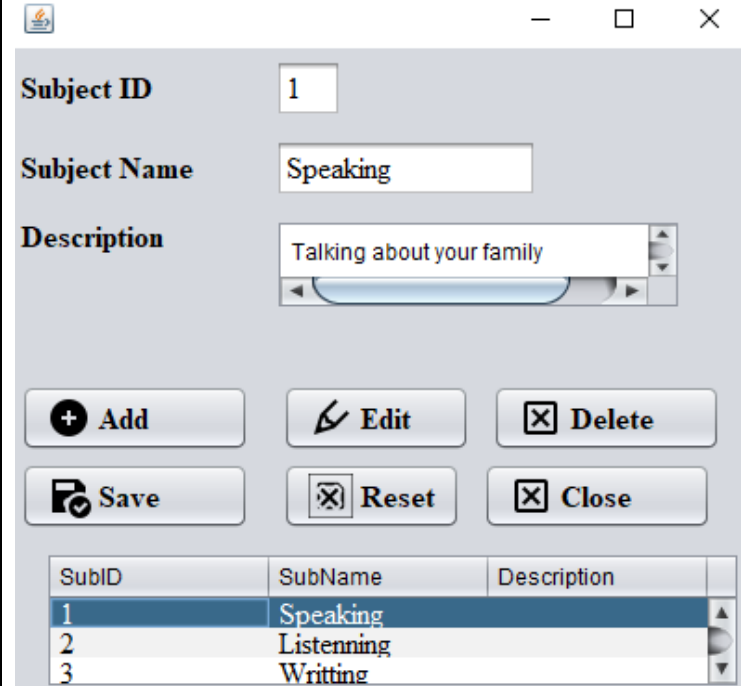
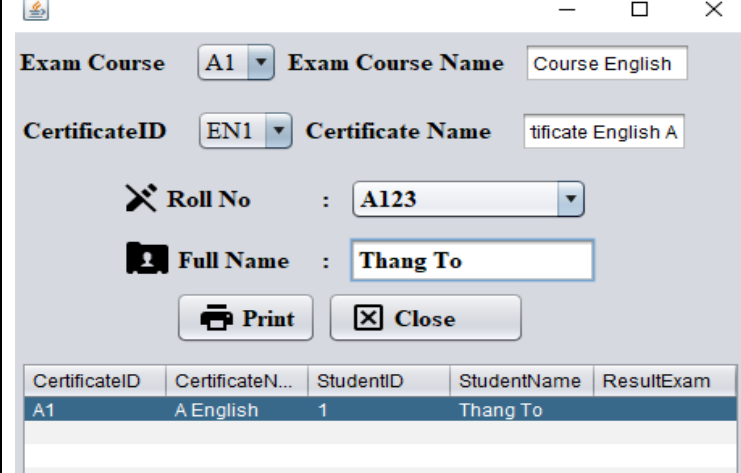
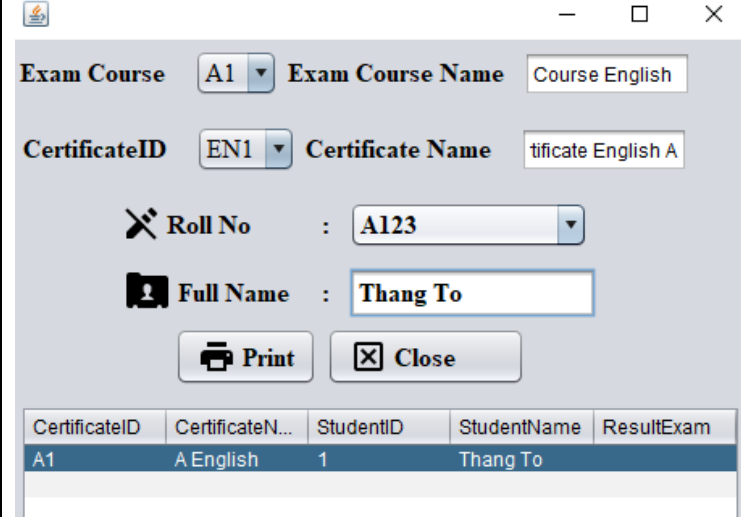
<b>Design Plan: Certificate Management System</b>	<b>Document Name: Interface Design Document</b>	<b>SWD/Form No. 5</b>
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<b>frMCourse</b>	 <p>The screenshot shows the 'frMCourse' application window. It has input fields for 'Exam course ID' (value: 1), 'Exam course Date' (value: 12/ 12/ 2019), and 'Description'. Below these are buttons for '+ Add', 'Edit', 'Delete', 'Save', 'Reset', and 'Close'. At the bottom is a table with columns 'EXCourseID', 'EXCourseDate', and 'Description'.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>EXCourseID</th> <th>EXCourseDate</th> <th>Description</th> </tr> </thead> <tbody> <tr><td>1</td><td>12/ 12/ 2019</td><td></td></tr> <tr><td>2</td><td>19/ 12/ 2019</td><td></td></tr> <tr><td>3</td><td>30/ 12/ 2019</td><td></td></tr> </tbody> </table>	EXCourseID	EXCourseDate	Description	1	12/ 12/ 2019		2	19/ 12/ 2019		3	30/ 12/ 2019															
EXCourseID	EXCourseDate	Description																									
1	12/ 12/ 2019																										
2	19/ 12/ 2019																										
3	30/ 12/ 2019																										
<b>frMCertifi</b>	 <p>The screenshot shows the 'frMCertifi' application window. It has input fields for 'Certificate ID' (value: A123), 'Certificate Name' (value: Level A), and 'Description' (value: English A full task). Below these are buttons for '+ Add', 'Edit', 'Delete', 'Save', 'Reset', and 'Close'. At the bottom is a table with columns 'CerID', 'CerName', and 'Description'.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>CerID</th> <th>CerName</th> <th>Description</th> </tr> </thead> <tbody> <tr><td>A123</td><td>Level A</td><td>English A full ...</td></tr> <tr><td>C123</td><td>Level C</td><td>English C full ...</td></tr> </tbody> </table>	CerID	CerName	Description	A123	Level A	English A full ...	C123	Level C	English C full ...																	
CerID	CerName	Description																									
A123	Level A	English A full ...																									
C123	Level C	English C full ...																									
<b>frMStudent</b>	 <p>The screenshot shows the 'frMStudent' application window. It has input fields for 'Roll No' (value: T123), 'Full Name' (value: Khanh Nguyen), 'Passport ID' (value: 213123123), 'E-mail' (value: nlkhanha18934@gmail.c), and 'Phone' (value: 905333333). Below these are buttons for '+ Add', 'Edit', 'Delete', 'Save', 'Reset', and 'Close'. At the bottom is a table with columns 'Roll No', 'Full Name', 'Passport ID', 'E-mail', and 'Phone'.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Roll No</th> <th>Full Name</th> <th>Passport ID</th> <th>E-mail</th> <th>Phone</th> </tr> </thead> <tbody> <tr><td>A123</td><td>Nghi Dang</td><td>321123123</td><td>dqnghia18086...</td><td>903148188</td></tr> <tr><td>B123</td><td>Khang Le</td><td>2311111444</td><td>nlkhanha18934...</td><td>905333333</td></tr> <tr><td>C123</td><td>Thang To</td><td>321143433</td><td>npthanha12123...</td><td>343432123</td></tr> <tr><td>T123</td><td>Thanh Nguyen</td><td>234432234</td><td>ttthanga123123</td><td>353333333</td></tr> </tbody> </table>	Roll No	Full Name	Passport ID	E-mail	Phone	A123	Nghi Dang	321123123	dqnghia18086...	903148188	B123	Khang Le	2311111444	nlkhanha18934...	905333333	C123	Thang To	321143433	npthanha12123...	343432123	T123	Thanh Nguyen	234432234	ttthanga123123	353333333	
Roll No	Full Name	Passport ID	E-mail	Phone																							
A123	Nghi Dang	321123123	dqnghia18086...	903148188																							
B123	Khang Le	2311111444	nlkhanha18934...	905333333																							
C123	Thang To	321143433	npthanha12123...	343432123																							
T123	Thanh Nguyen	234432234	ttthanga123123	353333333																							

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## Certificate Generation

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<b>frMSubject</b>		
<b>frMReport</b>		
<b>frMPrint</b>		

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**frMSearch**

The screenshot shows a window titled 'frMSearch' with a search form and a results table. The form contains the following fields:

- Exam Course:** A dropdown menu with 'A1' selected.
- Exam Course Name:** A text box containing 'Course English'.
- CertificateID:** A dropdown menu with 'EN1' selected.
- Certificate Name:** A text box containing 'tificate English A'.
- Roll No:** A text box containing 'A123'.
- Full Name:** A text box containing 'Thang To'.

Below the form are two buttons: 'Print' (with a printer icon) and 'Close' (with a close icon).

At the bottom of the window is a table with the following data:

CertificateID	CertificateN...	StudentID	StudentName	ResultExam
A1	A English	1	Thang To	

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<b>Design Plan: Certificate Management System</b>	<b>Document Name: Coding Standards Document</b>	<b>SWD/Form No. 6</b>
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## CODING STANDARDS DOCUMENT

### 1. Programming Standards

- Every button and label should have an Icon for expressing. It must set before a text, image icons have to store in the folder img in source “[Project\_Name]/src/img” and they are imported using “Image chooser, Image within Project, Image using for project have extension \*.png.
- File, module guidelines and code layout: Code is in the Application folder including the folders (build, nbproject, src, test, build.xml, manifest.mf).
- In the src folder it contains (application, database, and interfaces):
  - In application package: Contains the object class \*.java
  - In database package: Contains the class \*.java connect the database (manipulating queries on the database, add edit delete DATABASE).
  - In interfaces package: Contains the words using the Java Swing
- Must have declaration part for classes, packages using for the project.

### 2. Standards for code writing style:

- Statement of each group must indented a Tab.
- Using “{ }” to block a group of statements or only one statement even and the “{” is right after the declaration. For example:
  - If (a == 0){
    - Return 0;
  - }
- Each group of a work should have a line gap.
- Database guidelines: database name, table name and column name in the database are capitalize each word. If the two become separated by underscore. The SQL statements are all required to uppercase completely.
- Comment line descrying the variable declaration function mode and end command. For example:
 

```
// Comment here
/**
    @Author
    @Date writing
    @Author modify
    @Date modify
```

\*/

### 3. Standards for declaring Variables:

Every Variable are meaningful, the first word is lowercase and each meaning word later have the first letter is uppercase. For example: String studentID

	<b>Prepared By (Student)</b>	<b>Approved By (Teacher)</b>
<b>Date: Oct 15<sup>th</sup>, 2019</b>	<b>Nghi Dang Quang</b>	<b>Anh Luong The</b>

<b>Design Plan: Certificate Management System</b>	<b>Document Name: Coding Standards Document</b>	<b>SWD/Form No. 6</b>
<b>Effective Date: Oct 15<sup>th</sup>, 2019</b>	<b>Version: 1</b>	<b>Page No. 2 of 2</b>

Variables are using for loop can be “i” (Index) and loops inner can use “j” and then “k”, “m”, “n”. For example:

```
For (int i = 0; i < n; i++){
    For (int j = 0; ...    //Allowed
        For (int n = 0; ...    //Now allowed, next of “j” is “k”
    }
} // end for
```

In addition, in some cases, the variable name needs to clearly represent the data type of that variable. For example, a variable of type List should be named studentList, a variable of type Set should be named studentSet, a variable of type Map should be named studentMap, and a variable of type Array should be named studentArray.

#### 4. Standards for Function Declarations:

Must have declaration for any functions and it declares return value, parameters if necessary. For example:

```
//function return age
Public int getAge (int n) {
    Return n;
} // end getAge
```

Any lines have to fix in 80 character, if not, detach it.

#### 5. Other Standards:

The name of the constant must follow the general rule and must be capitalized. If the constant name has two words or more, there must be an underscore between words. For example: PI, NO\_FIBONACCI.

The first letter of the first word in the method name must be lowercase and a verb, and the first letter of the next words must be capitalized (*like the variable naming rule*). For example: addStudent.

Package names must follow the general rule and must be in lowercase.

Class names should have words that have suffixes to make them more expressive, such as AddTwoNumber.

Interface name should have the word I before it. For example: IFrame.

Rules for coding: Required comments (author, date of writing, note).

If explicit edit, write to comment (author edit, day edit).

If using the try – catch should use display error messages.

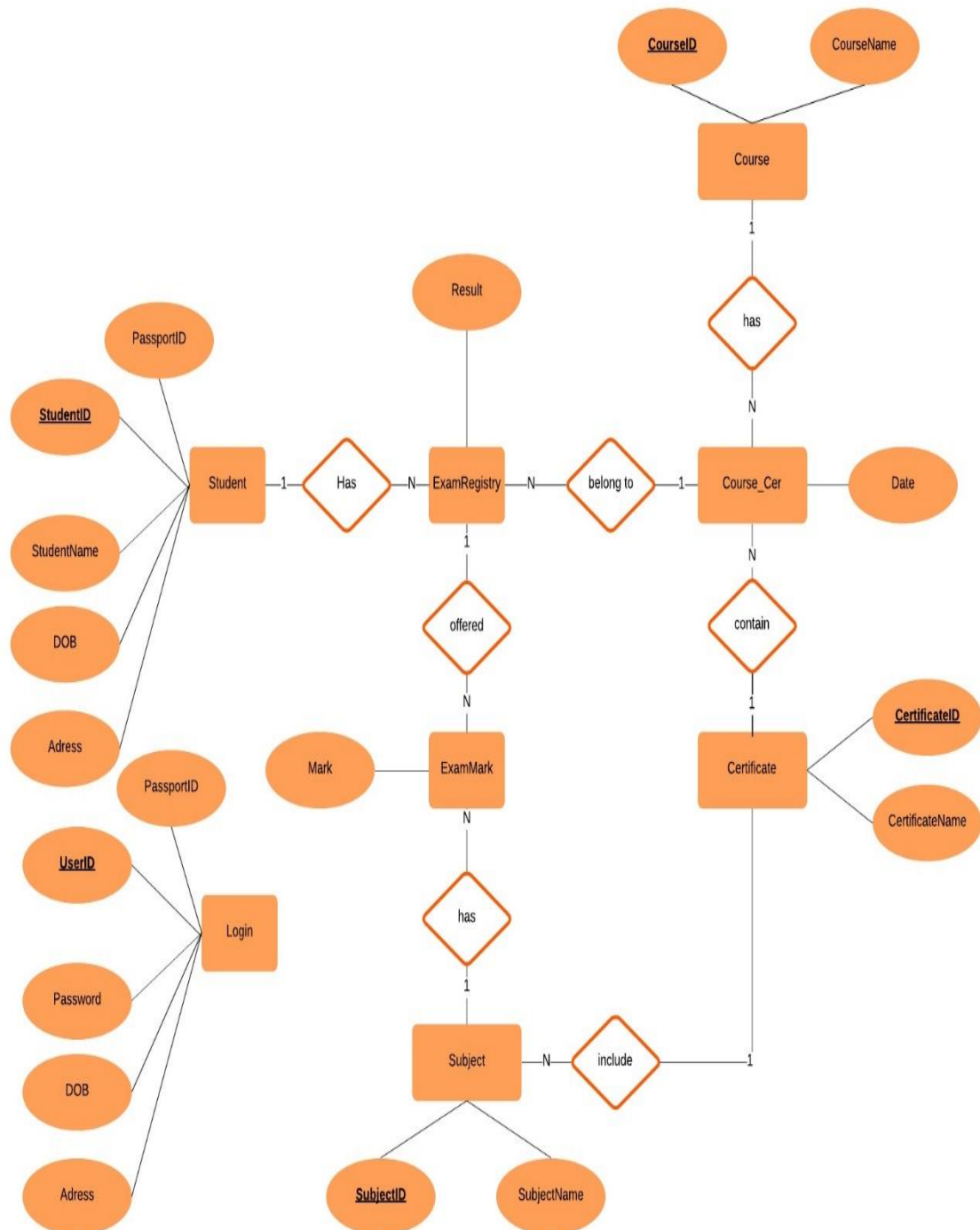
	<b>Prepared By (Student)</b>	<b>Approved By (Teacher)</b>
<b>Date: Oct 15<sup>th</sup>, 2019</b>	<b>Nghi Dang Quang</b>	<b>Anh Luong The</b>



<b>Design Plan: Certificate Management System</b>	<b>Document Name: Process Description Document</b>	<b>SWD/Form No. 7</b>
<b>Effective Date: Oct 15<sup>th</sup>, 2019</b>	<b>Version: 1</b>	<b>Page No. 1 of 3</b>

## PROCESS DESCRIPTION DOCUMENT

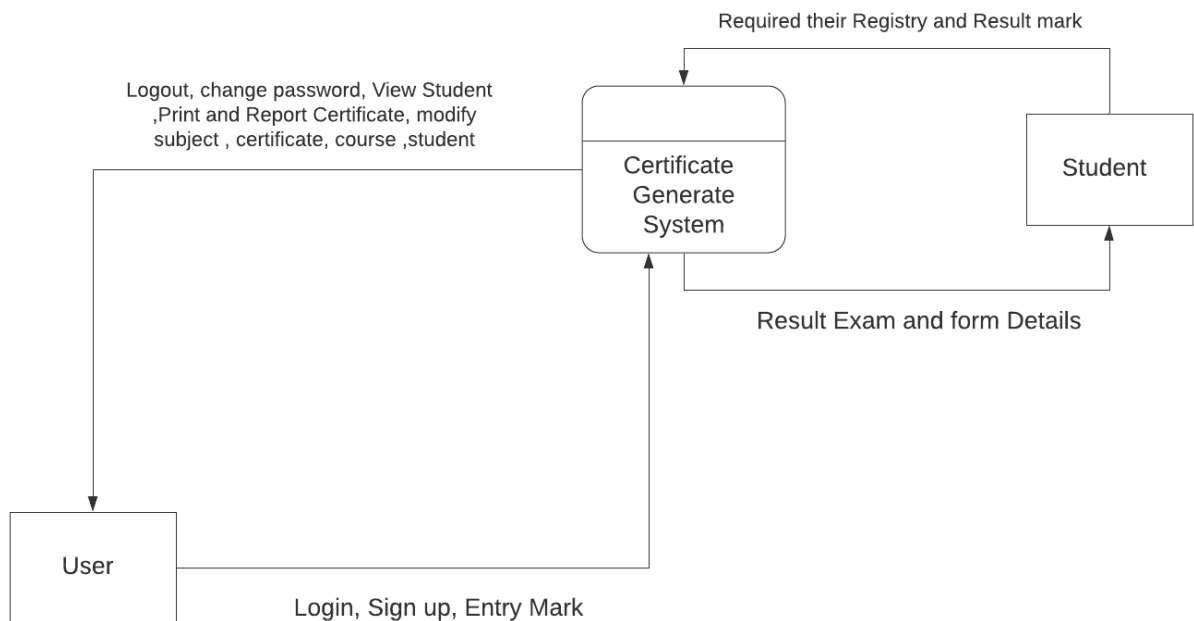
### 1. ER Diagram



	<b>Prepared By (Student)</b>	<b>Approved By (Teacher)</b>
<b>Date: Oct 15<sup>th</sup>, 2019</b>	<b>Nghi Dang Quang</b>	<b>Anh Luong The</b>

<b>Design Plan: Certificate Management System</b>	<b>Document Name: Process Description Document</b>	<b>SWD/Form No. 7</b>
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## 2. Data Flow Diagram Context.



## 3. Database Structure

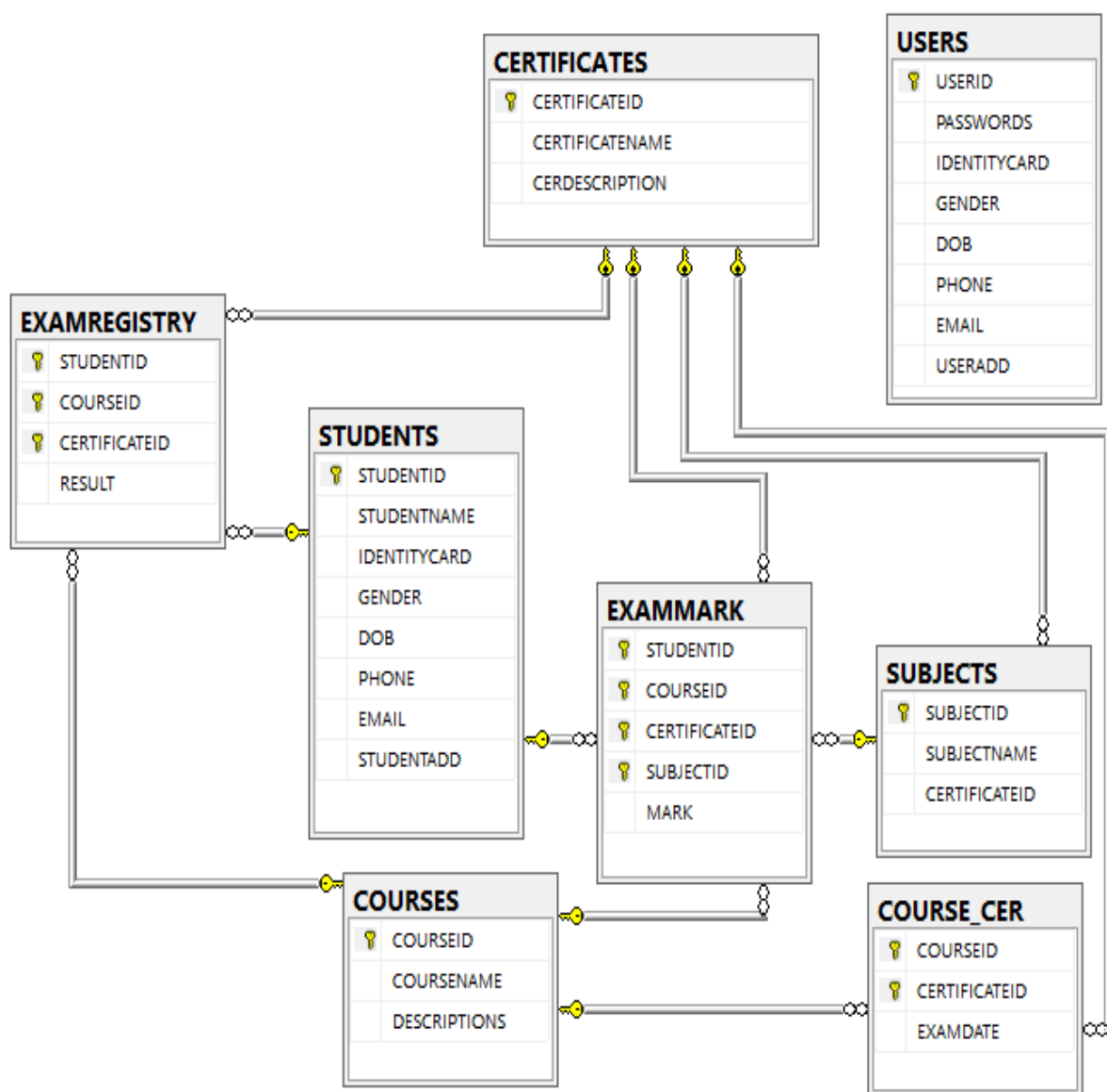
Name of the Table	Table Description	Number of Fields	Primary Key	Related Tables	Foreign Key
Student		8	<b>StudentID</b>	Subject, Examresult, Exammark	
Course		2	<b>CourseID</b>	Course_Cer, Examresult, Exammark	
Certificate		2	<b>CertificateID</b>	Course_Cer, Subject, Examresult, Exammark	
Course_Cer		3	<b>CourseID, CertificateID</b>	Course, Certificate, Examresult, Exammark	<u><b>CourseID,</b></u> <u><b>CertificateID</b></u>
Subject		3	<b>SubjectID</b>	Certificate, Examresult, Exammark	<b>CertificateID</b>

	<b>Prepared By (Student)</b>	<b>Approved By (Teacher)</b>
<b>Date: Oct 15<sup>th</sup>, 2019</b>	<b>Nghi Dang Quang</b>	<b>Anh Luong The</b>

<b>Design Plan: Certificate Management System</b>	<b>Document Name: Process Description Document</b>	<b>SWD/Form No. 7</b>
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Examresult		4	<b>StudentID, CourseID, CertificateID</b>	Student, Course_Cer, Exammark	<u><b>StudentID, CourseID, CertificateID</b></u>
Exammark		5	<b>StudentID, CourseID, CertificateID, SubjectID</b>	Examresult, Subject	<u><b>StudentID, CourseID, CertificateID, SubjectID</b></u>
Users		8	<b>UserID</b>		

## 4. Algorithms and data structures



	<b>Prepared By (Student)</b>	<b>Approved By (Teacher)</b>
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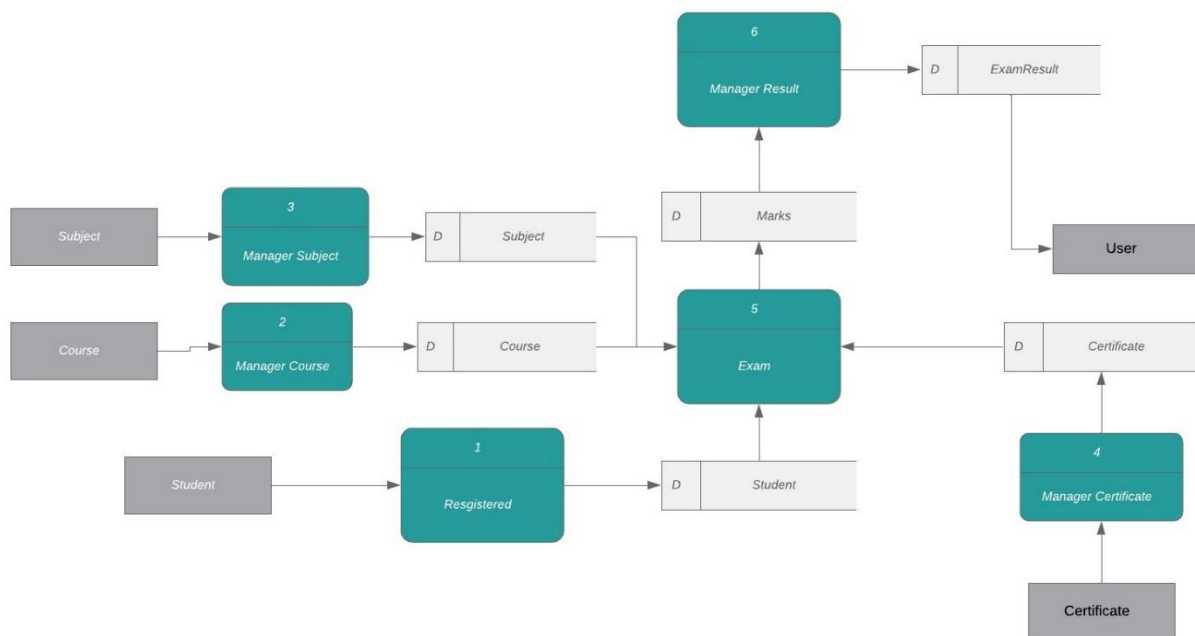
<b>Design Plan: Certificate Management System</b>	<b>Document Name: Process Description Document</b>	<b>SWD/Form No. 8</b>
<b>Effective Date: Oct 15<sup>th</sup>, 2019</b>	<b>Version: 1</b>	<b>Page No. 1 of 7</b>

## PROCESS DESCRIPTION DOCUMENT

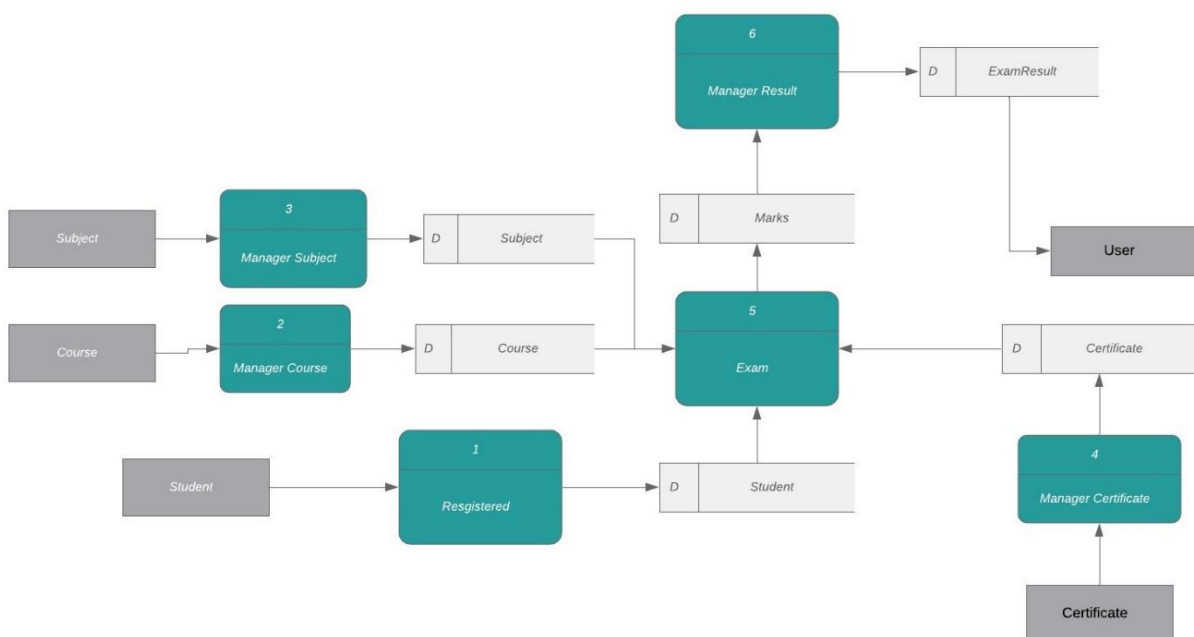
### 1. Process Name: DFD context.

#### Process Description and Details:

##### 1.1 DFD System:



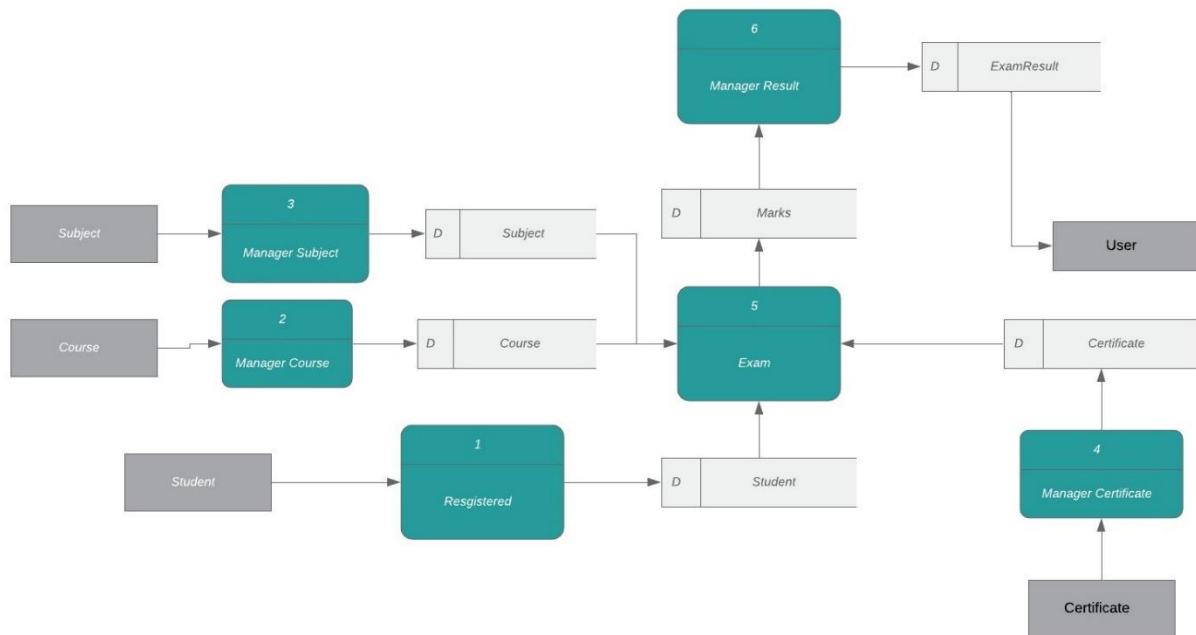
##### 1.2 DFD process 1



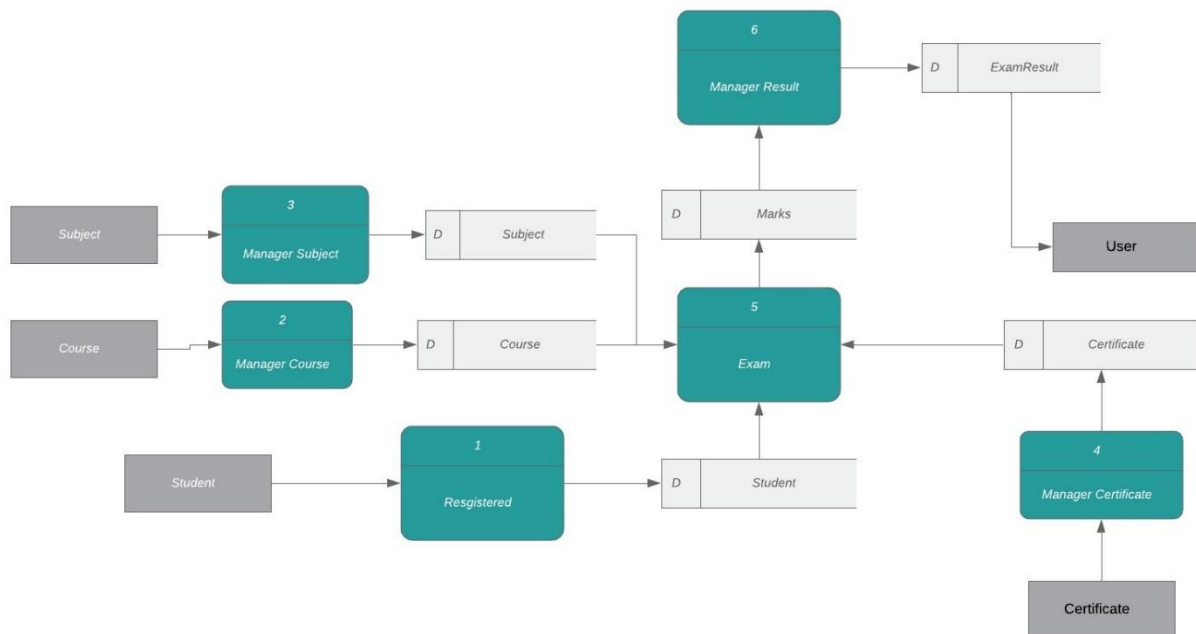
	<b>Prepared By (Student)</b>	<b>Approved By (Teacher)</b>
<b>Date: Oct 15<sup>th</sup>, 2019</b>	<b>Nghi Dang Quang</b>	<b>Anh Luong The</b>

<b>Design Plan: Certificate Management System</b>	<b>Document Name: Process Description Document</b>	<b>SWD/Form No. 8</b>
<b>Effective Date: Oct 15<sup>th</sup>, 2019</b>	<b>Version: 1</b>	<b>Page No. 2 of 7</b>

## 1.3 DFD process 2



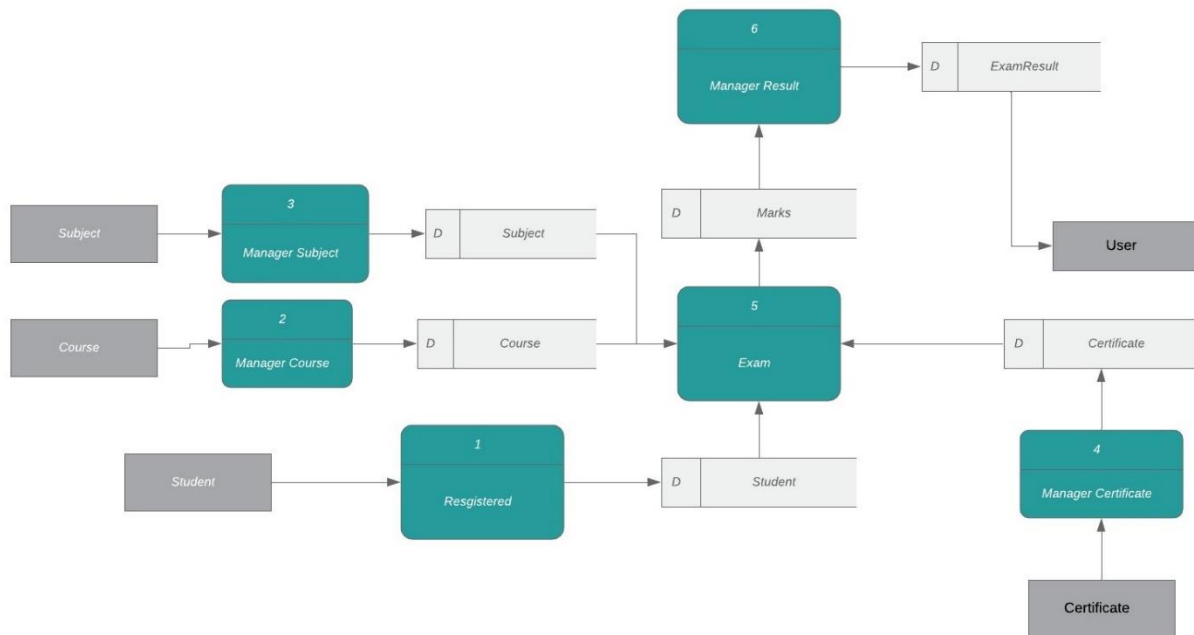
## 1.4 DFD process 3



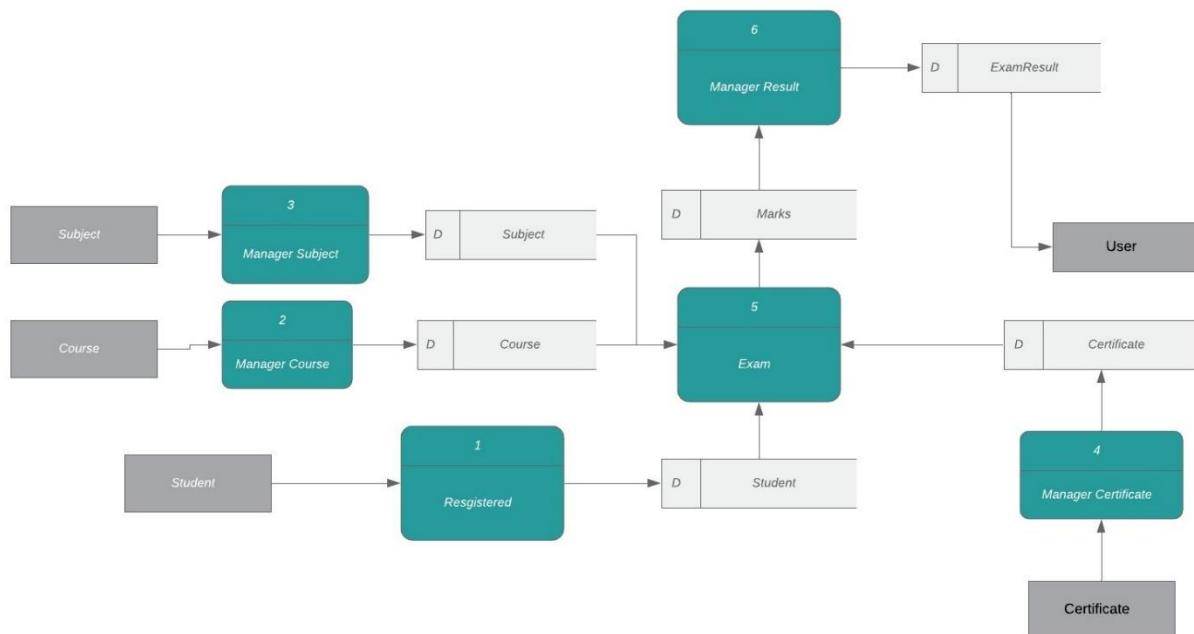
	<b>Prepared By (Student)</b>	<b>Approved By (Teacher)</b>
<b>Date: Oct 15<sup>th</sup>, 2019</b>	<b>Nghi Dang Quang</b>	<b>Anh Luong The</b>

<b>Design Plan: Certificate Management System</b>	<b>Document Name: Process Description Document</b>	<b>SWD/Form No. 8</b>
<b>Effective Date: Oct 15<sup>th</sup>, 2019</b>	<b>Version: 1</b>	<b>Page No. 3 of 7</b>

## 1.5 DFD process 4



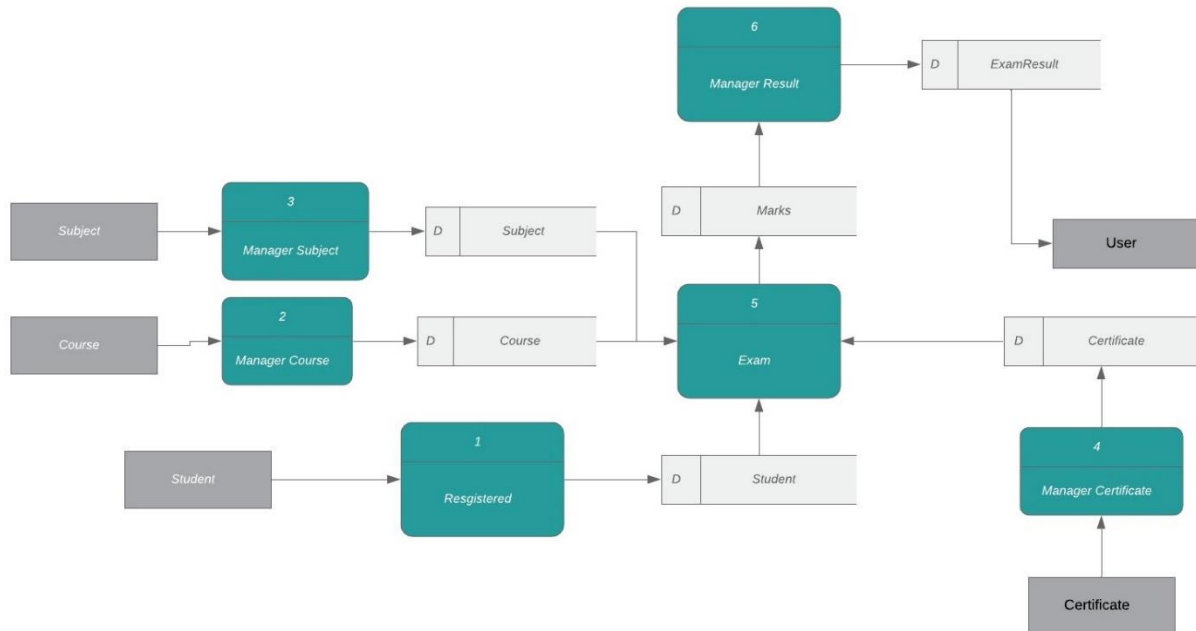
## 1.6 DFD process 5



	<b>Prepared By (Student)</b>	<b>Approved By (Teacher)</b>
<b>Date: Oct 15<sup>th</sup>, 2019</b>	<b>Nghi Dang Quang</b>	<b>Anh Luong The</b>

<b>Design Plan: Certificate Management System</b>	<b>Document Name: Process Description Document</b>	<b>SWD/Form No. 8</b>
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## 1.7 DFD process 6



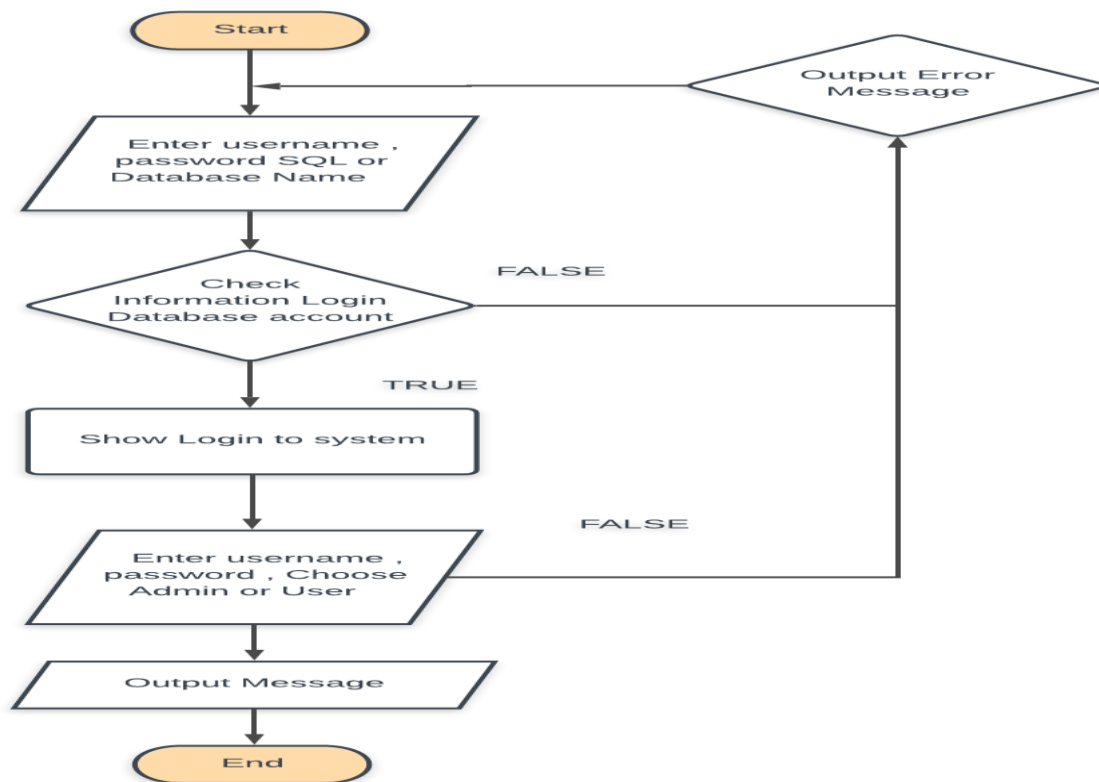
	<b>Prepared By (Student)</b>	<b>Approved By (Teacher)</b>
<b>Date: Oct 15<sup>th</sup>, 2019</b>	<b>Nghi Dang Quang</b>	<b>Anh Luong The</b>

<b>Design Plan: Certificate Management System</b>	<b>Document Name: Process Description Document</b>	<b>SWD/Form No. 8</b>
<b>Effective Date: Oct 15<sup>th</sup>, 2019</b>	<b>Version: 1</b>	<b>Page No. 5 of 7</b>

## 2. Process Name Flow Chart:

### Process Description and Details:

#### 2.1 Connection Database.

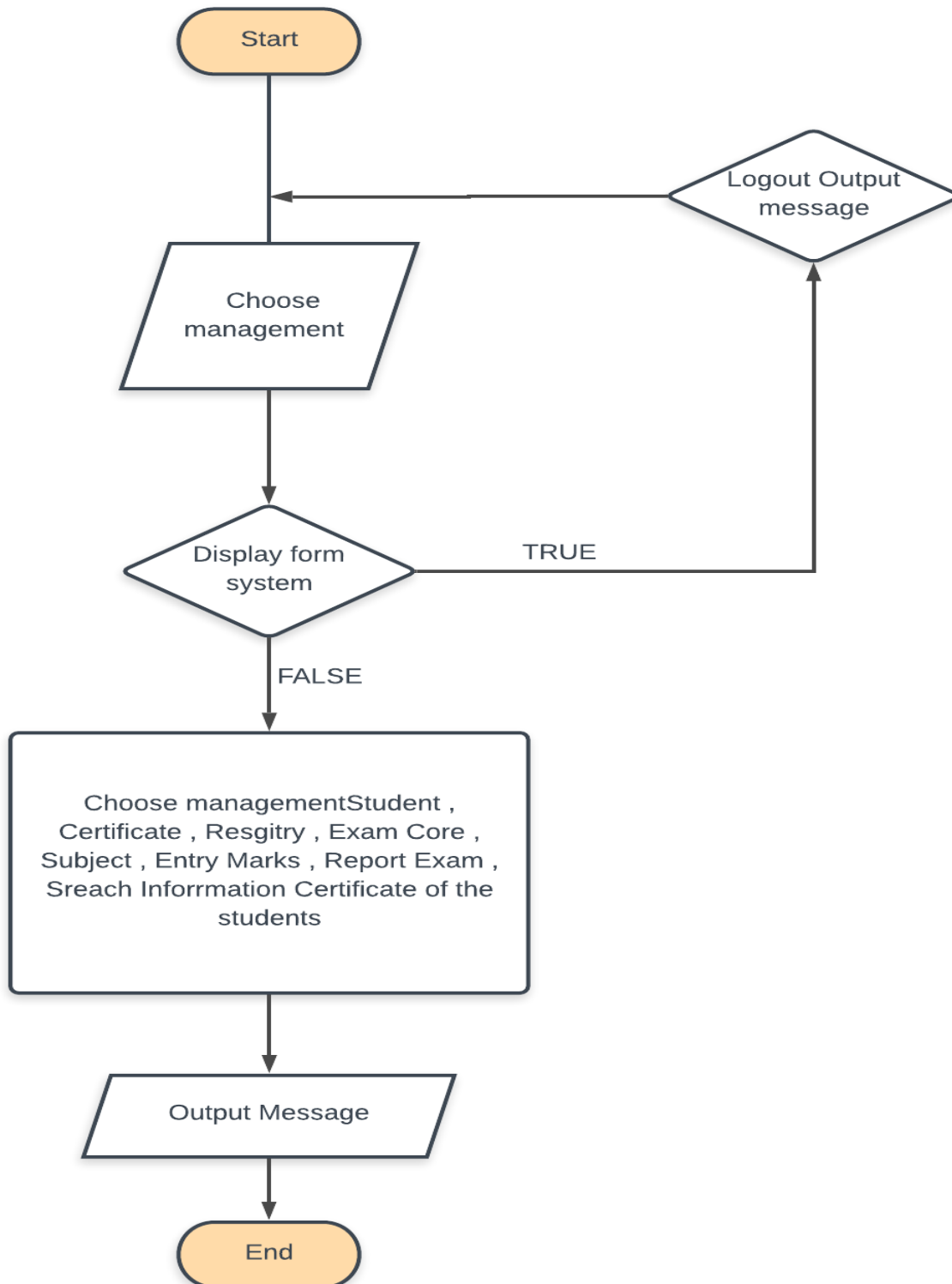


	<b>Prepared By (Student)</b>	<b>Approved By (Teacher)</b>
<b>Date: Oct 15<sup>th</sup>, 2019</b>	<b>Nghi Dang Quang</b>	<b>Anh Luong The</b>



<b>Design Plan: Certificate Management System</b>	<b>Document Name: Process Description Document</b>	<b>SWD/Form No. 8</b>
<b>Effective Date: Oct 15<sup>th</sup>, 2019</b>	<b>Version: 1</b>	<b>Page No. 6 of 7</b>

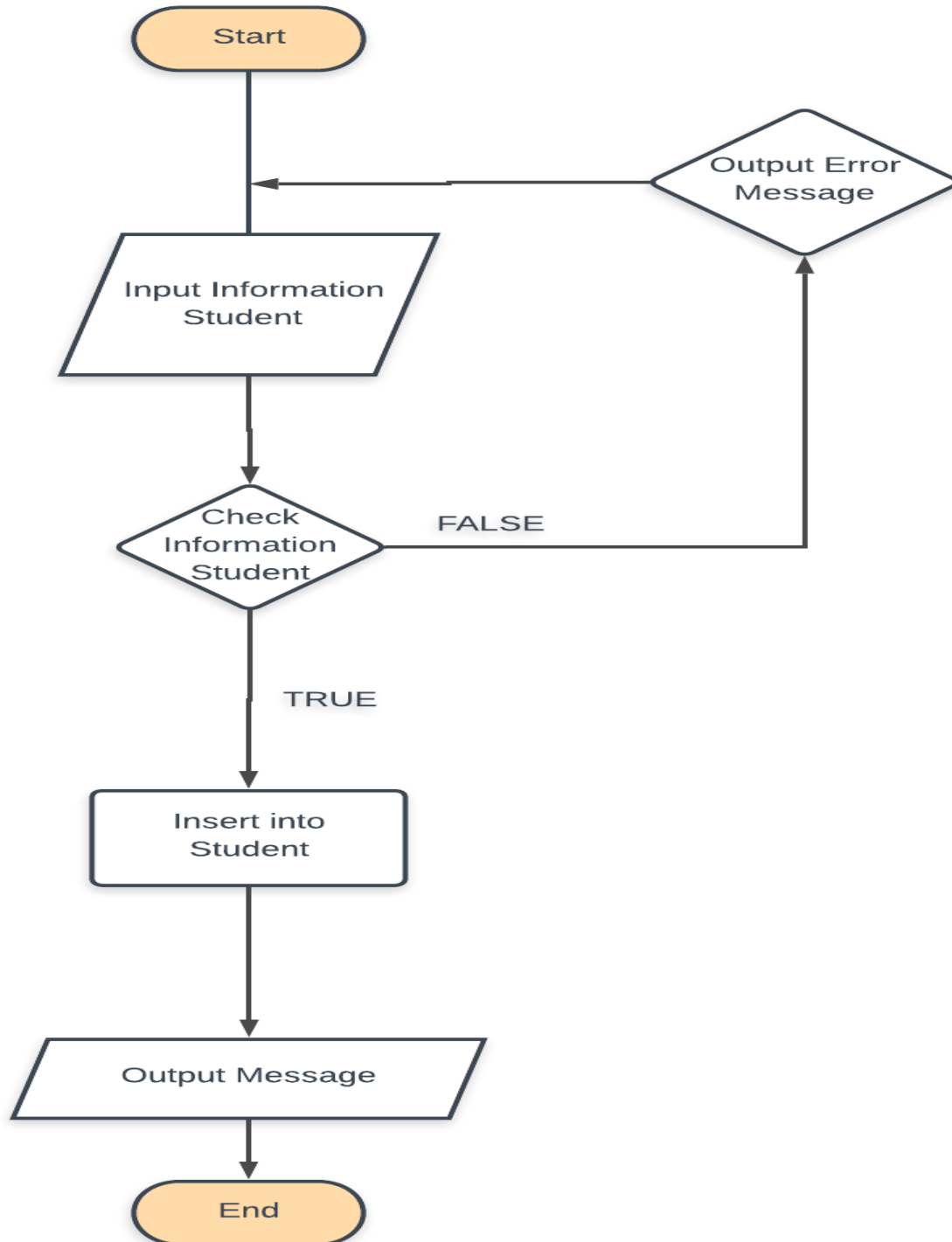
## 2.2 Management system



	<b>Prepared By (Student)</b>	<b>Approved By (Teacher)</b>
<b>Date: Oct 15<sup>th</sup>, 2019</b>	<b>Nghi Dang Quang</b>	<b>Anh Luong The</b>

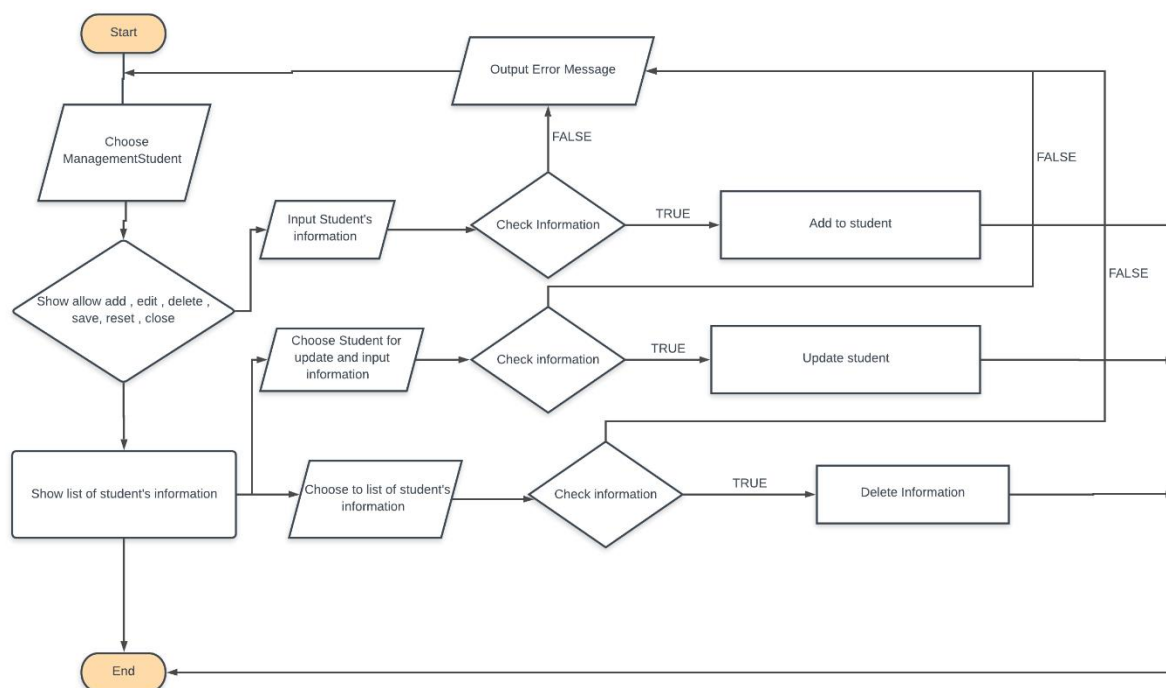
<b>Design Plan: Certificate Management System</b>	<b>Document Name: Process Description Document</b>	<b>SWD/Form No. 8</b>
<b>Effective Date: Oct 15<sup>th</sup>, 2019</b>	<b>Version: 1</b>	<b>Page No. 7 of 8</b>

## 2.3 Add, Update, Delete, Students, Subject, Course and Certificates.



	<b>Prepared By (Student)</b>	<b>Approved By (Teacher)</b>
<b>Date: Oct 15<sup>th</sup>, 2019</b>	<b>Nghi Dang Quang</b>	<b>Anh Luong The</b>

<b>Design Plan: Certificate Management System</b>	<b>Document Name: Process Description Document</b>	<b>SWD/Form No. 8</b>
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## 2.4 Update Students, Subject, Course and Certificates.

	<b>Prepared By (Student)</b>	<b>Approved By (Teacher)</b>
<b>Date: Oct 15<sup>th</sup>, 2019</b>	<b>Nghi Dang Quang</b>	<b>Anh Luong The</b>

## Certificate Generation

<b>Design Plan: Certificate Management System</b>	<b>Document Name: Task Sheet</b>	<b>SWD/Form No. 9</b>
<b>Effective Date: Oct 15<sup>th</sup>, 2019</b>	<b>Version: 1</b>	<b>Page No. 1 of 2</b>

### TASK SHEET

<b>Project Ref. No.:</b>	<b>Project Title:</b>	<b>Activity Plan Prepared By: Nghi Dang Quang</b>		<b>Date of Preparation of Activity Plan: Oct 9<sup>th</sup>, 2019</b>		
<b>Task Sub division</b>	<b>Description</b>	<b>Planned Start Date</b>	<b>Actual Start Date</b>	<b>Actual Days</b>	<b>Team Member Names</b>	<b>Status</b>
Form No: 1	Problem Definition	Oct 9 <sup>th</sup> , 2019	Oct 10 <sup>th</sup> , 2019	2	All member	Done
Form No: 2A	CRS	Oct 11 <sup>th</sup> , 2019	Oct 13 <sup>th</sup> , 2019	3	All member	Done
Form No: 2B	Customer Acceptance Criteria	Oct 14 <sup>th</sup> , 2019	Oct 15 <sup>th</sup> , 2019	2	All member	Done
Form No: 9	Task Sheet	Oct 15 <sup>th</sup> , 2019	Oct 15 <sup>th</sup> , 2019	1	Nghi Dang Quang	Done
Form No: 3	Project Plan	Oct 16 <sup>th</sup> , 2019	Oct 16 <sup>th</sup> , 2019	1	Nghi Dang Quang, Khanh Nguyen Le	Pending
Form No: 4	Process Design Document	Oct 17 <sup>th</sup> , 2019	Oct 18 <sup>th</sup> , 2019	2	Thang To Toan, Thanh Nguyen Phuoc	Pending
Form No: 5	Process Description Document	Oct 19 <sup>th</sup> , 2019	Oct 19 <sup>th</sup> , 2019	1	Khanh Nguyen Le	Pending
Form No: 6	Interface Design Document	Oct 20 <sup>th</sup> , 2019	Oct 25 <sup>th</sup> , 2019	6	All member	Pending
Form No: 7	Table Design Document	Oct 26 <sup>th</sup> , 2019	Oct 29 <sup>th</sup> , 2019	4	All member	Pending
Form No: 8	GUI Standards Document	Oct 30 <sup>th</sup> , 2019	Oct 30 <sup>th</sup> , 2019	1	Thang To Toan	Pending

	<b>Prepared By (Student)</b>	<b>Approved By (Teacher)</b>
<b>Date: Oct 15<sup>th</sup>, 2019</b>	<b>Nghi Dang Quang</b>	<b>Anh Luong The</b>

## Certificate Generation

<b>Design Plan: Certificate Management System</b>	<b>Document Name: Task Sheet</b>	<b>SWD/Form No. 9</b>
<b>Effective Date: Oct 15<sup>th</sup>, 2019</b>	<b>Version: 1</b>	<b>Page No. 2 of 2</b>

Form No: 10	Coding Standards Document	Oct 31 <sup>th</sup> , 2019	Nov 12 <sup>th</sup> , 2019	13	Thanh Nguyen Phuoc	Pending
Form No: 11	Integration Testing Report	Nov 13 <sup>th</sup> , 2019	Nov 17 <sup>th</sup> , 2019	5	All member	Pending
Form No: 12	Review Report	Nov 18 <sup>th</sup> , 2019	Nov 18 <sup>th</sup> , 2019	1	Khanh Nguyen Le	Pending
Form No: 13	Final Checklist	Nov 19 <sup>th</sup> , 2019	Nov 26 <sup>th</sup> , 2019	8	All member	Pending

	<b>Prepared By (Student)</b>	<b>Approved By (Teacher)</b>
<b>Date: Oct 15<sup>th</sup>, 2019</b>	<b>Nghi Dang Quang</b>	<b>Anh Luong The</b>

## Certificate Generation

<b>Design Plan: Certificate Management System</b>	<b>Document Name: Interface Design Document</b>	<b>SWD/Form No. 5</b>
<b>Effective Date: Oct 15<sup>th</sup>, 2019</b>	<b>Version: 1</b>	<b>Page No. 1 of 5</b>

### INTEGRATION TESTING REPORT

S. No.	Features Tested	Remarks

	<b>Prepared By (Student)</b>	<b>Approved By (Teacher)</b>
<b>Date: Oct 15<sup>th</sup>, 2019</b>	<b>Nghi Dang Quang</b>	<b>Anh Luong The</b>

## Certificate Generation

<b>Design Plan: Certificate Management System</b>	<b>Document Name: Interface Design Document</b>	<b>SWD/Form No. 5</b>
<b>Effective Date: Oct 15<sup>th</sup>, 2019</b>	<b>Version: 1</b>	<b>Page No. 1 of 5</b>

### REVIEW REPORT

<b>Date:</b>	<b>Project Plan Activity/ Milestone</b>	<b>Work Specification</b>	<b>Status of the Activity</b>	<b>Remarks</b>	<b>Responsibility</b>

	<b>Prepared By (Student)</b>	<b>Approved By (Teacher)</b>
<b>Date: Oct 15<sup>th</sup>, 2019</b>	<b>Nghi Dang Quang</b>	<b>Anh Luong The</b>

<b>Design Plan: Certificate Management System</b>	<b>Document Name: Interface Design Document</b>	<b>SWD/Form No. 5</b>
<b>Effective Date: Oct 15<sup>th</sup>, 2019</b>	<b>Version: 1</b>	<b>Page No. 1 of 5</b>

### **FINAL CHECKLIST**

(This document has to be filled by the teacher only. The teacher will do a complete functionality testing of the application and his/ her findings and suggestions to this form.)

<b>S. No.</b>	<b>Aspect tested</b>	<b>Suggestion/ Remarks</b>
1.	Have all the modules been properly integrated and are they completely functional?	
2.	Does each unit meet its objective and purpose? Are all the validations happening as specified in Process Design?	
3.	Have all Design and Coding standards been followed and implemented?	
4.	Is the GUI design consistent all over?	
5.	Are the codes working as per the specification?	
6.	Does the application's functionality resolve the client problem, and satisfy his needs completely?	
7.	Have the hardware and software been correctly chosen?	
8.	Additional features and utilities that give value addition to the entire project.	

	<b>Prepared By (Student)</b>	<b>Approved By (Teacher)</b>
<b>Date: Oct 15<sup>th</sup>, 2019</b>	<b>Nghi Dang Quang</b>	<b>Anh Luong The</b>