INTERNATIONAL BURCH UNIVERSITY
FACULTY OF ENGINEERING AND NATURAL SCIENCES
DEPARTMENT OF INTFORMATION TECHNOLOGIES

SOFTWARE REQUIREMENTS (SRS) PROJECT

COURSE: SYSTEM ANALYSIS AND DESIGN

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Sarajevo, January 2020

Table of Contents

Project Specification

OVERVIEW

The topic of this paper is education center. For more effective content, we focused on the faculty as an educational center. The goal of this project is to create an application for the same. The accompanying documentation, as a mandatory part of this project, aims to explain in a simple and effective way its basic structure and how to use it. Before starting the implementation of the application, we need to thoroughly analyze all the details that need to be considered for the best possible validation so that users can manage the application as easily as possible. This application covers various mechanisms related to the various segments required for the smooth operation of a faculty, such as logging into your profile, reviewing activity schedules, work materials, payments, etc. All of this is made easy for the user to use, which is a priority.

Feature details

Feature name: Refresh Page

Role(s): Every visitor

Feature description/steps:

1. This feature will be located in the upper left corner of the application.
2. When the user clicks on the logo, the page will refresh and the user will be directed to the homepage of the application, that is, the registration page.

Dependencies: This feature does not have any dependencies. Any visitor can click on the logo at any time.

Feature name: Student Registration

Role(s): Any student with student ID card

Feature description/steps:

1. When the Registration page opens, in the middle of the window, a registration form will appear, which must be filled out in order for the user to register.
2. The student will enter all the requested information, ie. first name, last name, email, and ID number from student card.

3. When the Register button is clicked, all fields will be validated and the user will be prompted to confirm the entry.

4. If all the information is entered correctly, a pop-up will be displayed with the message that the link for that comfirm email has been sent to the email.

5. When the user confirms the email, ie clicking on the link sent to him, he will return to the registration page, where he will enter his index number (ID number from student card) and create a password.

6. If the data is entered correctly, a pop-up will be displayed asking the user if they want to save their username and password.

7. Each form field must be entered correctly in order for the user to register. If some of the data is missing or wrong, the form field is red and a message is displayed that if the field is blank it must be filled in and

if the data is not entered correctly, the user is asked to repeat the data entry for the given field.

The password must be between 8 to 20 characters long and contain at least one lowercase letter, one uppercase letter and one numeric digit. If the password is not entered correctly, a message will be displayed with the given password entry rules. The pasword must match in both required fields, if not, the message "Password match match" is displayed.

First and last name can only contain letters.

Dependencies:

User cannot register if he / she does not have a student card.

Feature name: Login

Role(s): Every visitor who is registered

Feature description/steps:

1. This feature will be located in the upper right corner of the application

2. When the user clicks on this button, which says login, a form will appear, which contains fields for entering username and password, as well as button for executing login.

3. When the user enters the data and clicks on the login button from the form, if the data is entered correctly, the User Homepage is shown.

4. If the user is not registered or incorrectly entered username, login will not be possible and a red message will appear: „The username you entered does not belong to any account. Please register first.".

If the user enters an incorrect password, the message: "Your username and password don't match will be displayed. Try logging in again.".

Dependencies: User cannot register if he / she does is not registred.

Feature name: Forgot your password?

Role(s): Every visitor that is registered

Feature description/steps:

1. This feature will be on the login form, below the login button. It will appear as a link.
2. When a user clicks on this link, a page will be created to create a new password.
3. The page will contain a message: To create a new password, you must enter your file number and email address. A form for entering them will also be displayed.
4. When the user enters the form information and clicks on the reset password button, a message will be displayed: "We sent a message to" user email "so you can pick your new password".
A new password will be sent to his / her email.
5. When a user clicks on a submitted link in an email, a page will open where the user will enter a new password.

Dependencies:
The password reset will only be possible if the user is registered. If not, the message will be shown: „The username you entered does not belong to any account.“.

Feature name: Menu Bar

Role(s): Registered visitors

Feature description/steps:

1 . When the user login to the page, a new application homepage will open, which will be the News page. A menu bar (navbar) will be displayed at the top of the page.
2. There will be icons on the menu bar: "News page", "Profile", "Documents", "My works", "Attendance", "Success" and "My certificates".
3. If the user clicks on one of these, he / she will be directed to the site to which the given icon.

Dependencies: Only registered users can use this option.

Feature name: News page

Role(s): Registered visitors

Feature description/steps:

1. When the user login to the page, the News page opens. Also, the menu bar will have a "News page"

icon, which will return to the specified page.
2. The news page will contain all student announcements.

Dependencies: Only registered users can see the news page.

Feature name: Profile

Role(s): Registered visitors

Feature description/steps:

1. Profile icons will be on the menu bar.
2. When the user clicks on the "Profile" icon, they collapse, where the user can select from three buttons: Personal information, settings and tuition fees.
3. By clicking on the personal information button, the student's personal information will be displayed: Idex number, First name and last name, Parent's name, JMBG, Date of Birth, Residence address and Residence.
4. Clicking on the settings button will display a form where the user can change their email address or phone.
5. Clicking the tuition button will show information about the paid tuition fees: date, amount and installment, and how much more tuition the student has to pay.

Dependencies: Only registered visitors can see the student profile.

Feature name: Documents

Role(s): Registered visitors

Feature description/steps:
1. The "Documents" option is located on the menu bar, next to the profile icon.
2. When the user clicks on this button, the page will show a search bar with a window to enter the name of the item.
3. After the user enters the name of the object, clicks on the enter or search button, all the given documents for the requested object will appear.
4. If the user does not fill the windows correctly, the message will appear "Please enter a valid name for the course".
If the course exists in the database, the message will appear "Course exist".

Dependencies: Only registered users can use this option.

Feature name: Success

Role(s): Registered visitors

Feature description/steps:

1. The "Success" option is located on the menu bar, next to the documents icon.
2. Clicking on the success icon will bring up a spreadsheet page divided into different sections. The sections will represent years of study. The table will show the names of all the subjects the student has taken, in addition to which the student will be able to see their success in the given subject: credits from homework, exams and quizzes.

Dependencies: Only registered users can use this option.

Feature name: Attendance

Role(s): Registered visitors

Feature description/steps:
1. The "Attendance" option is located on the menu bar, next to the success icon.
2. Clicking on the attendance icon will display a page showing the names of all the subjects the student has taken or is currently taking, along with a percentage of the student attending the class.

Dependencies: Only registered users can use this option.

Feature name: My works

Role(s): Registered visitors

Feature description/steps:

1. The "My Works" option is located on the menu bar next to the icon.
2. An icon of my work will lead to a page divided into two sections.
3. The upper part of the page will contain the student's previous work, where the student can review all the work he has added so far.
4. At the bottom of the page there will be a submit button where the student adds their new work.

Dependencies: Only registered users can use this option.

**Feature name:** My certificates

Role(s): Registered visitors

Feature description/steps:

1. My confirmation icon is on the menu bar next to my icon work.
2. Clicking on this icon will open a collapsed page, where students can choose which certificate they need: Certificate of status of stundet and / or certificate of passed exams.
3. When a student chooses, by clicking the submit request button, he / she sends a request to the student service for certification.
4. When the confirmation is complete, a notification is displayed in the newes page.

Dependencies: Only registered users can use this option.

Use case diagram
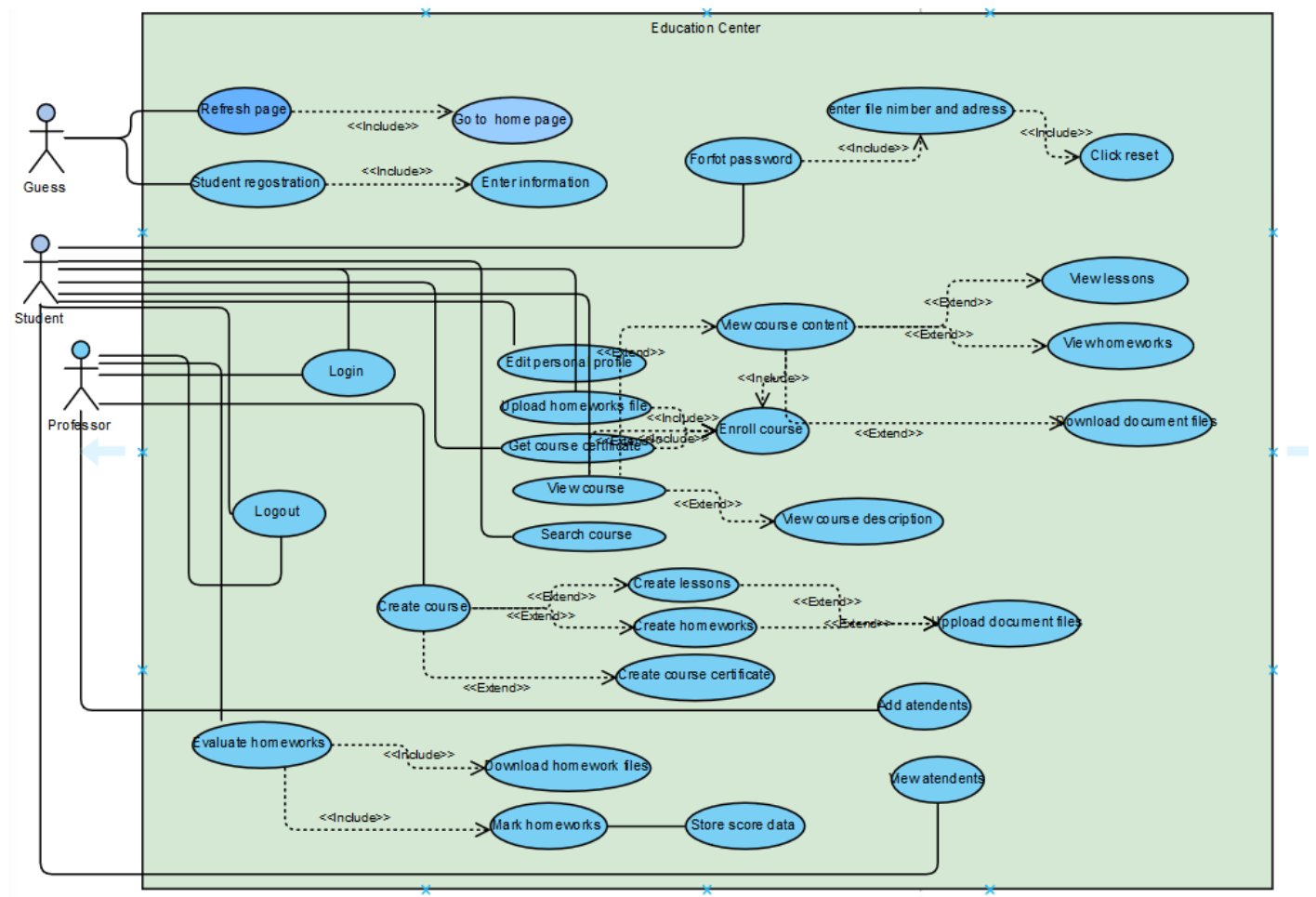
Name: Education Center

Description: This is use case diagram which showes aviable options for registred and unregistred users on this site.

Actors: Guest, Student, Professor

Activity diagrams

Registration
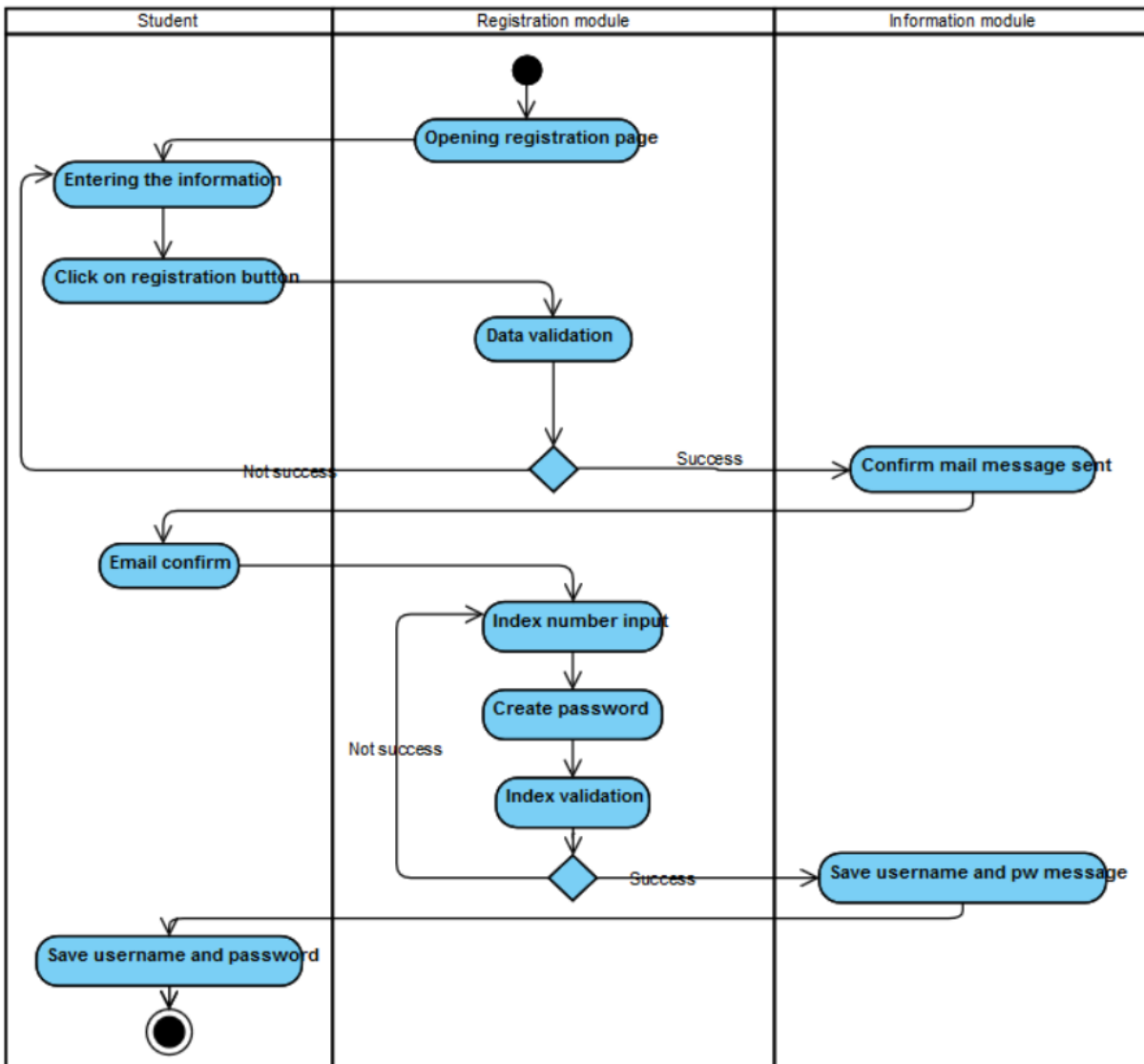
If all the information is entered correctly, a pop-up will be displayed with the message that the link for that comfirm email has been sent to the email. User will be asked if he wants to save his username and password.

Login
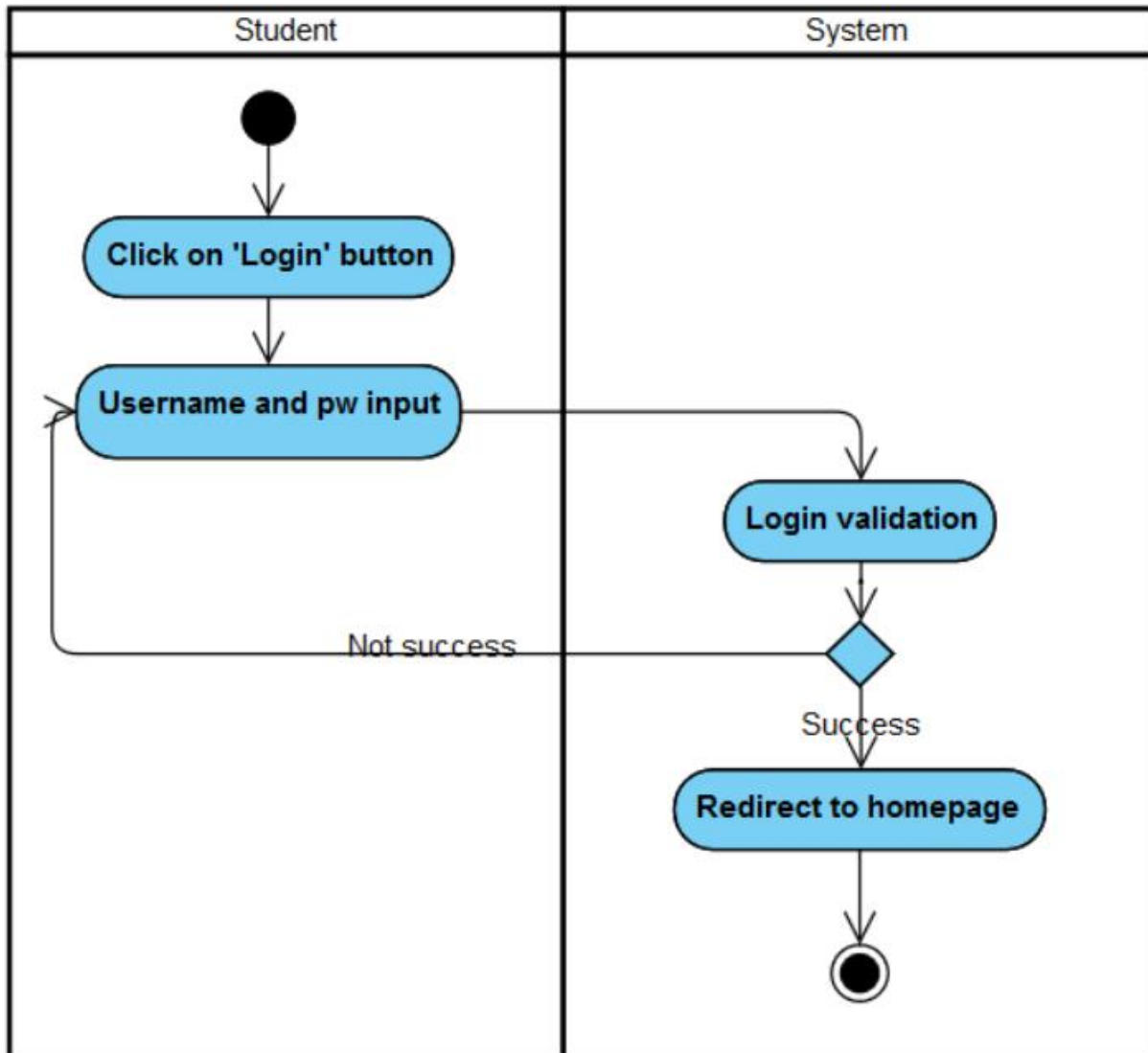
Each form field must be entered correctly in order for the user to register. If some of the data is missing or wrong, the form field must be filled in again. If all data is entered correctly, user will be redirected to homepage.
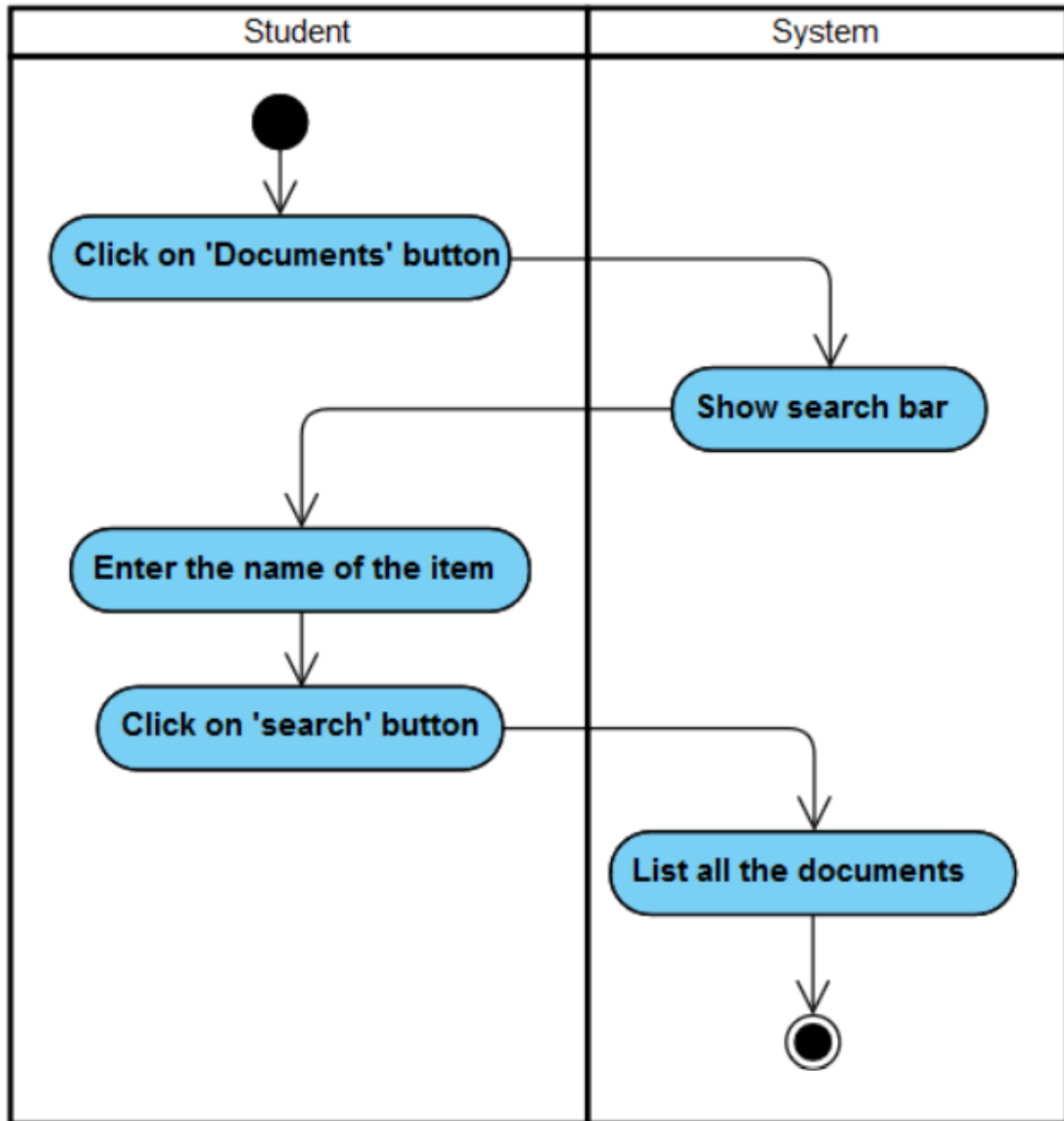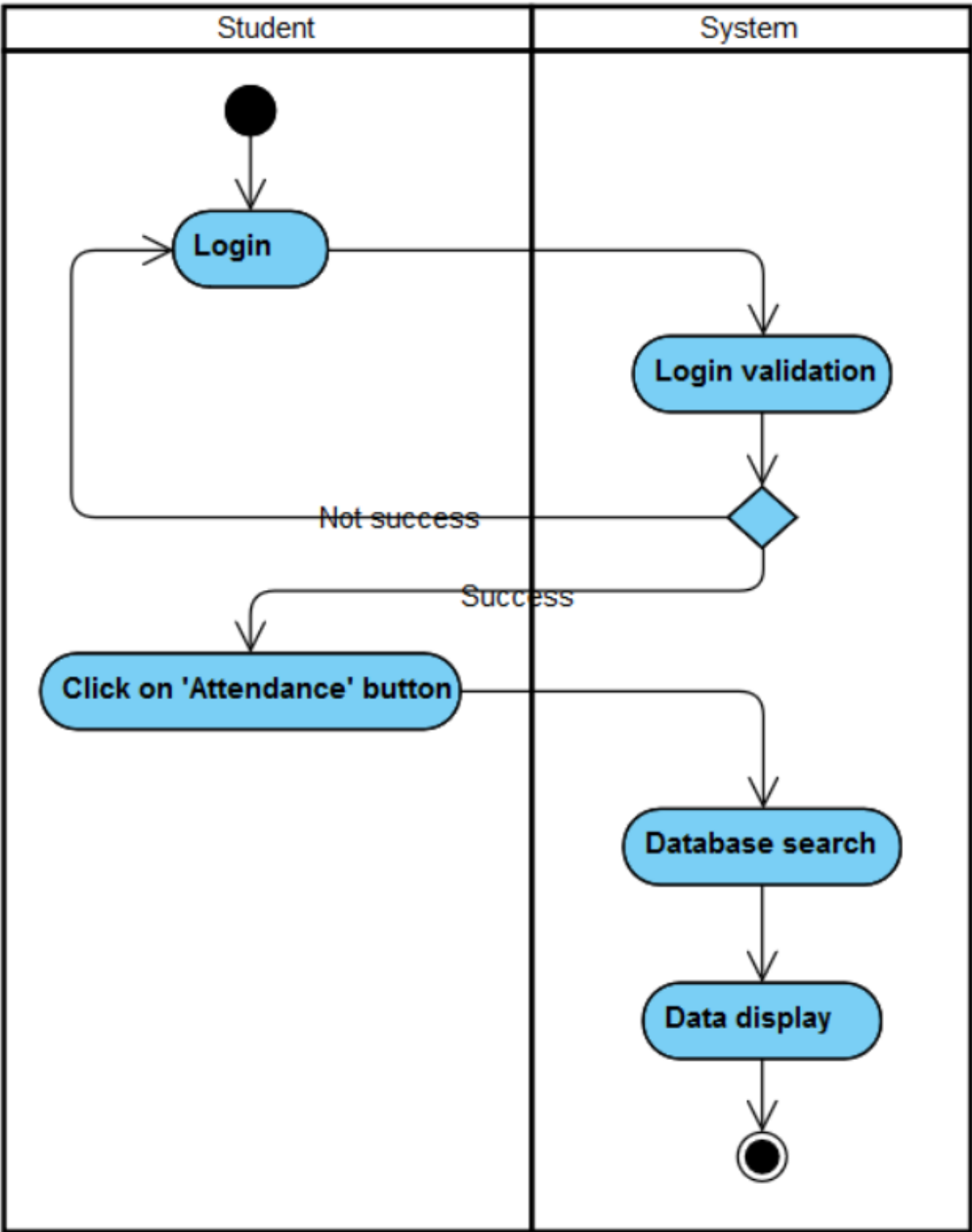
Forgot Password
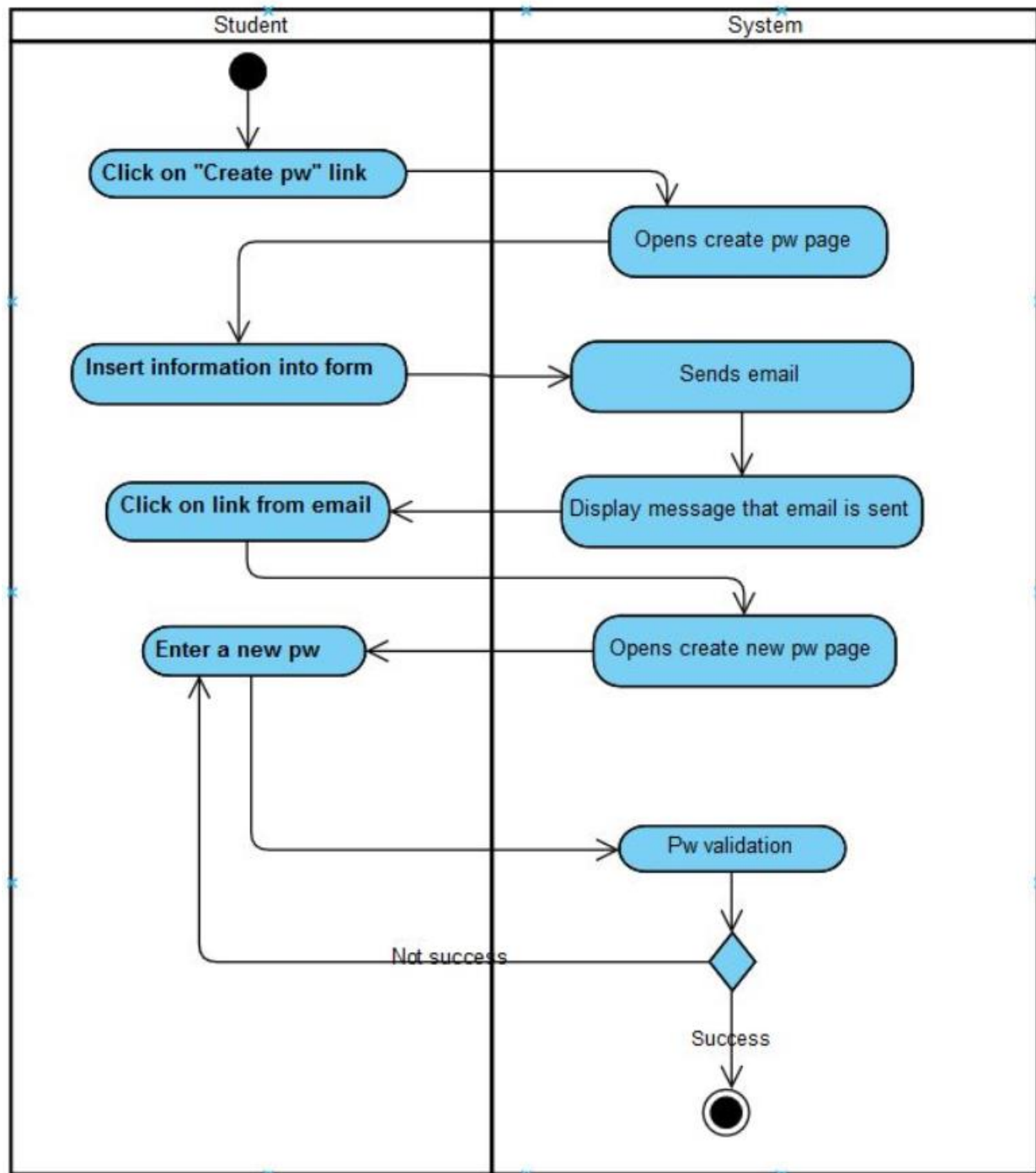
When a user clicks on this link, a page will be created to create a new password. The page will contain a message: To create a new password, you must enter your file number and
email address. A form for entering them will also be displayed. When the user enters the form information and clicks on the reset password button, a message will
be displayed: "We sent a message to" user email "so you can pick your new password". A new password

will be sent to his / her email. When a user clicks on a submitted link in an email, a page will open where the user will enter a new password.
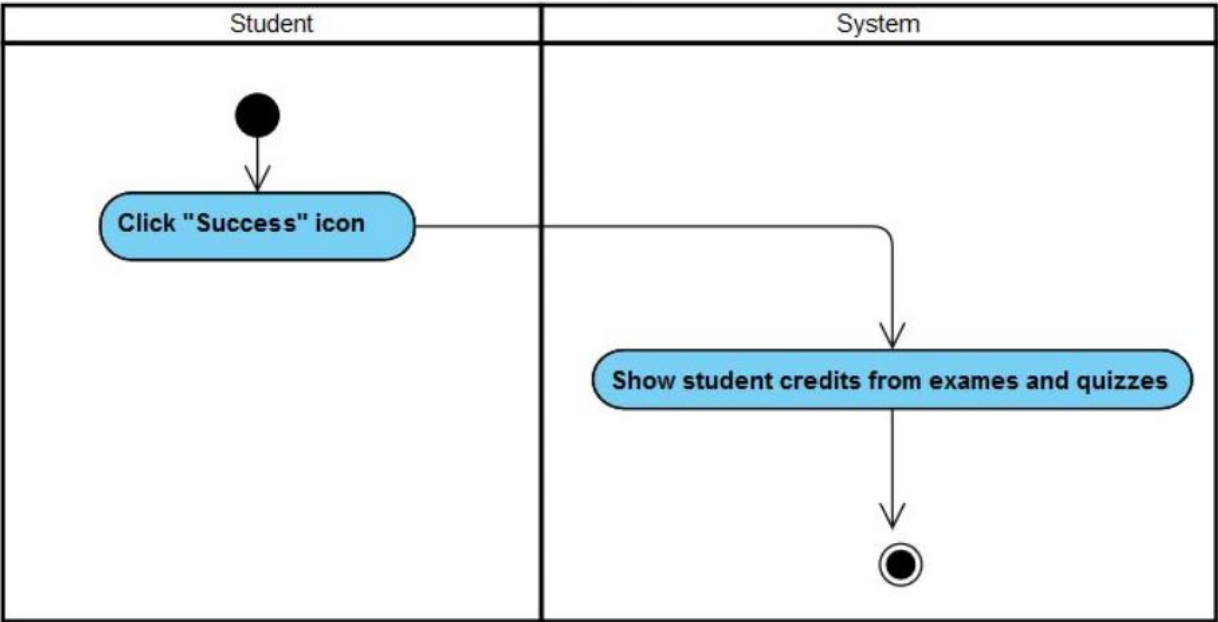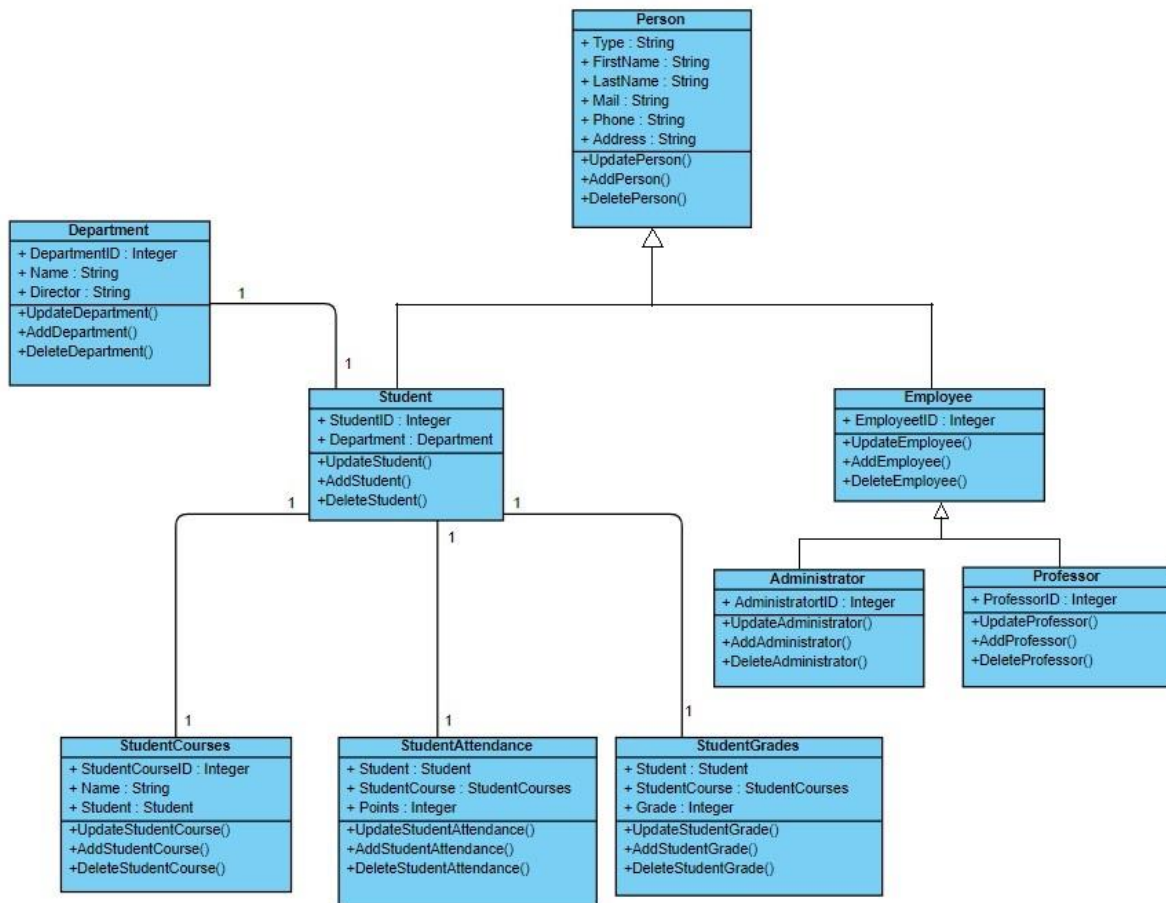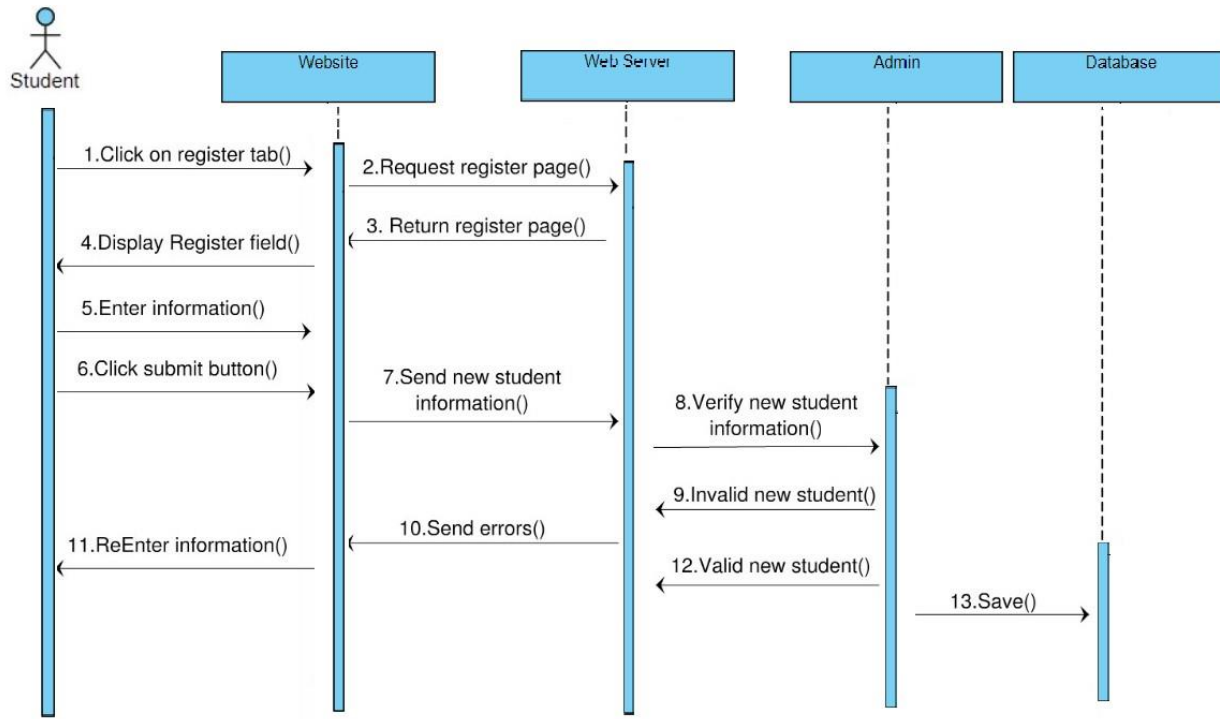
Documents

Attendance

Success

Class diagram

Person
+ Type : String
+ FirstName : String
+ LastName : String
+ Mail : String
+ Phone : String
+ Address : String
+UpdatePerson()
+AddPerson()
+DeletePerson()

Department
+ DepartmentID : Integer
+ Name : String
+ Director : String
+UpdateDepartment()
+AddDepartment()
+DeleteDepartment()

1

1

1

Student
+ StudentID : Integer
+ Department : Department
+UpdateStudent()
+AddStudent()
+DeleteStudent()

1

1

1

Employee
+ EmployeetID : Integer
+UpdateEmployee()
+AddEmployee()
+DeleteEmployee()

Administrator
+ AdministratortID : Integer
+UpdateAdministrator()
+AddAdministrator()
+DeleteAdministrator()

Professor
+ ProfessorID : Integer
+UpdateProfessor()
+AddProfessor()
+DeleteProfessor()

1

1

1

StudentCourses
+ StudentCourseID : Integer
+ Name : String
+ Student : Student
+UpdateStudentCourse()
+AddStudentCourse()
+DeleteStudentCourse()

StudentAttendance
+ Student : Student
+ StudentCourse : StudentCourses
+ Points : Integer
+UpdateStudentAttendance()
+AddStudentAttendance()
+DeleteStudentAttendance()

StudentGrades
+ Student : Student
+ StudentCourse : StudentCourses
+ Grade : Integer
+UpdateStudentGrade()
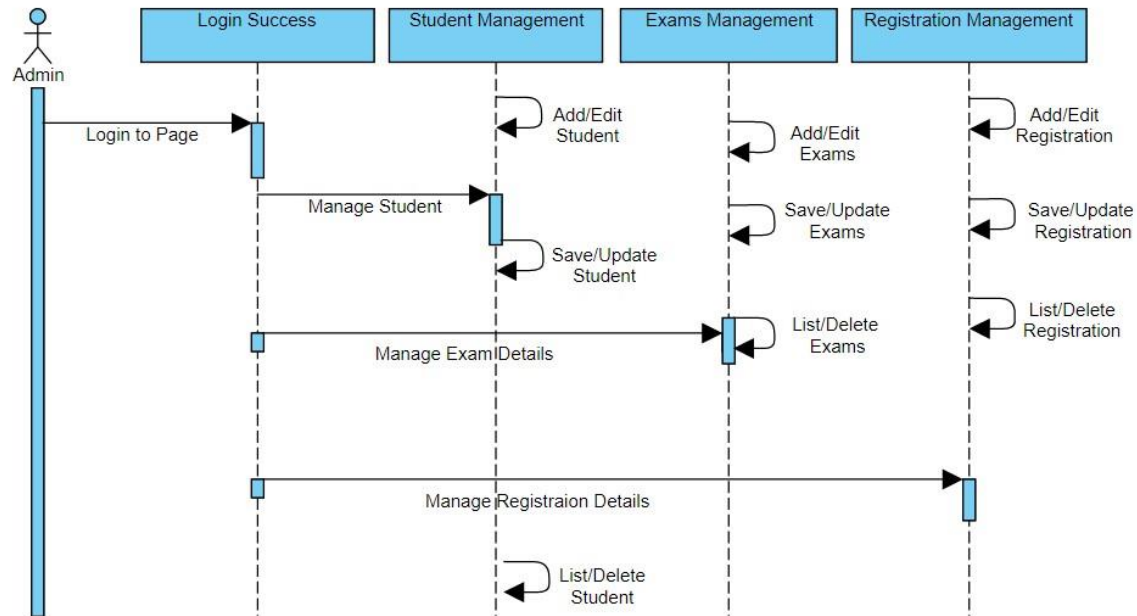+AddStudentGrade()
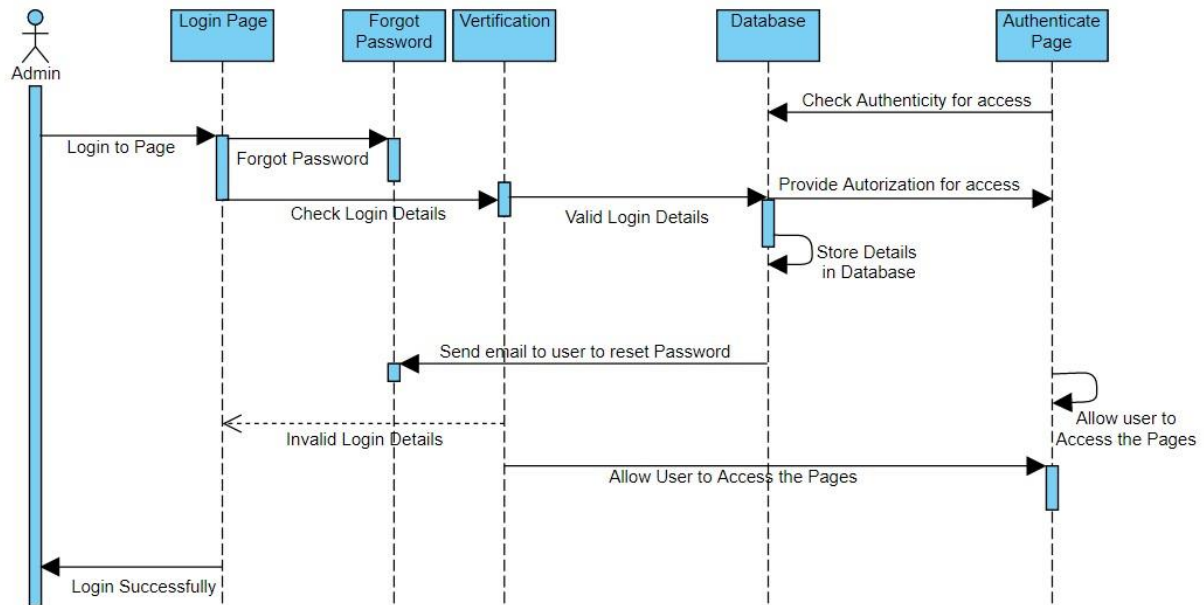+DeleteStudentGrade()

Sequence diagrams

Registration

Here is shown the process of registration. If information are corect, student is added and saved in database. If not, student has to enter information again.
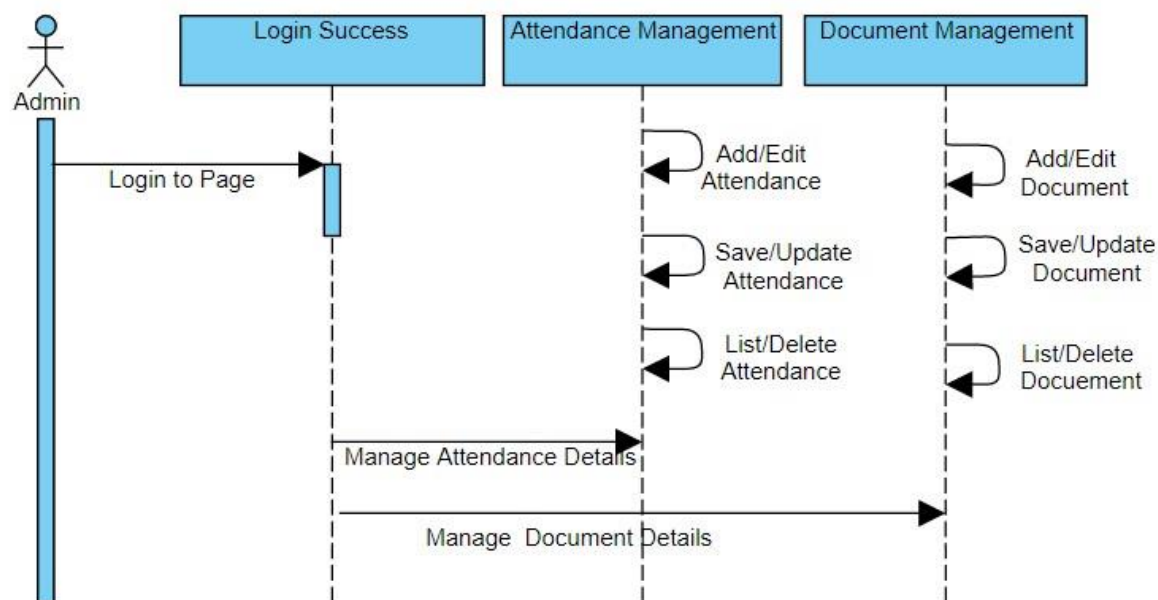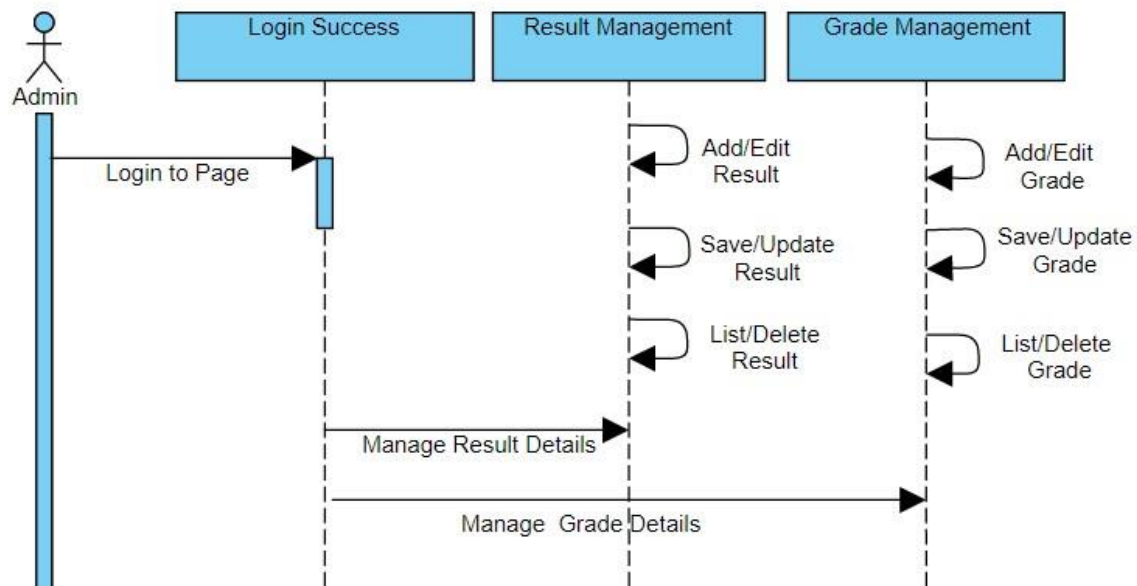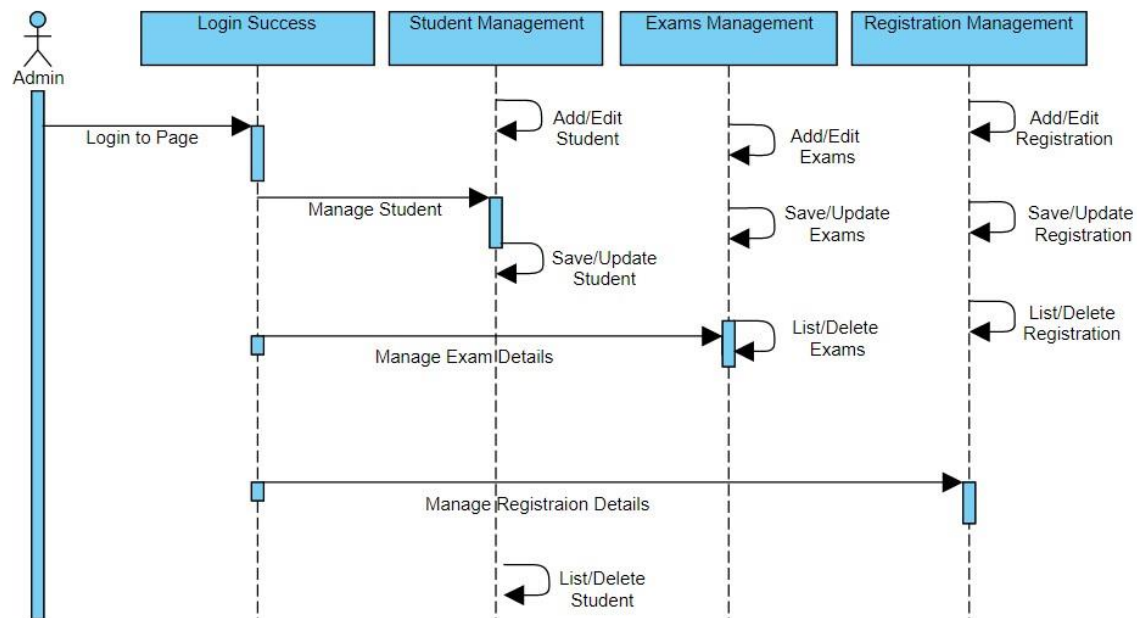
Login

Forgot Password

Attendance and Document

*Result and
Grade*

Student and Exames

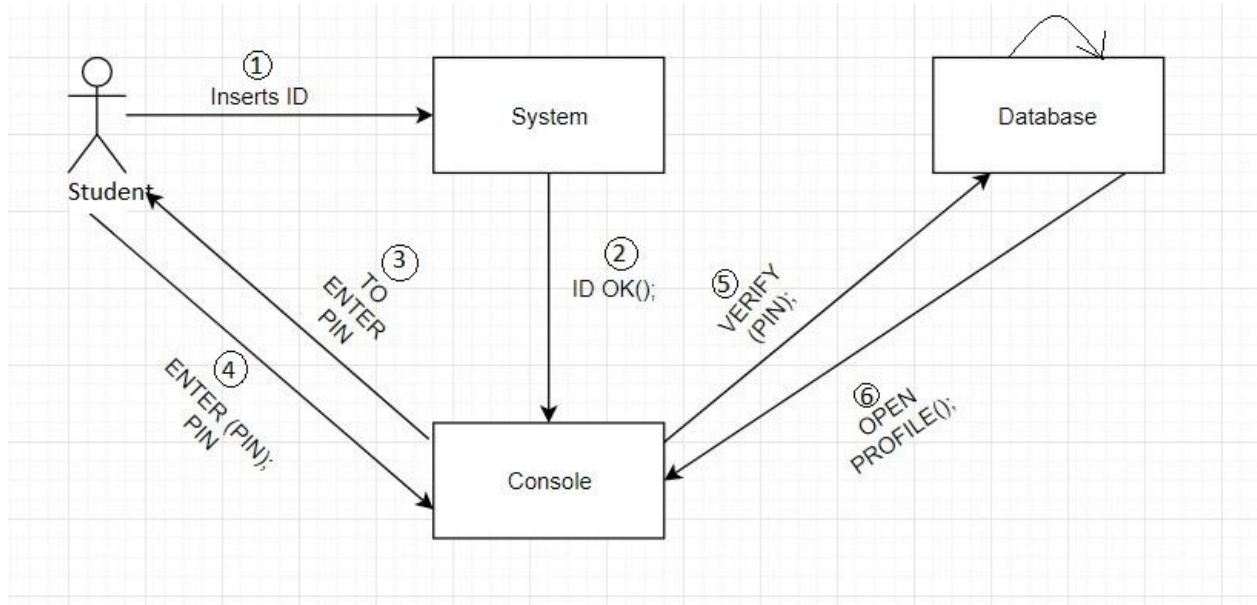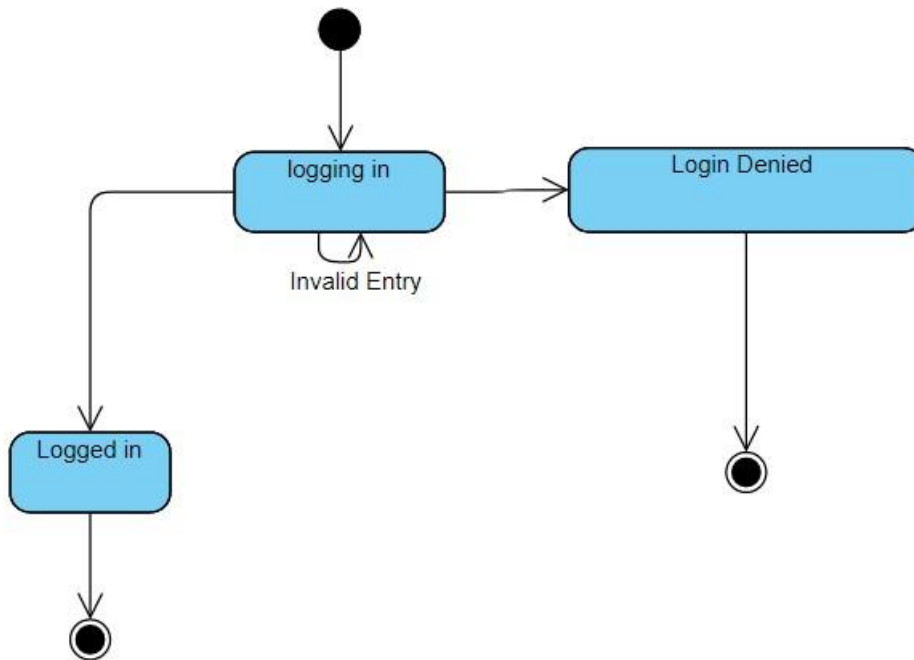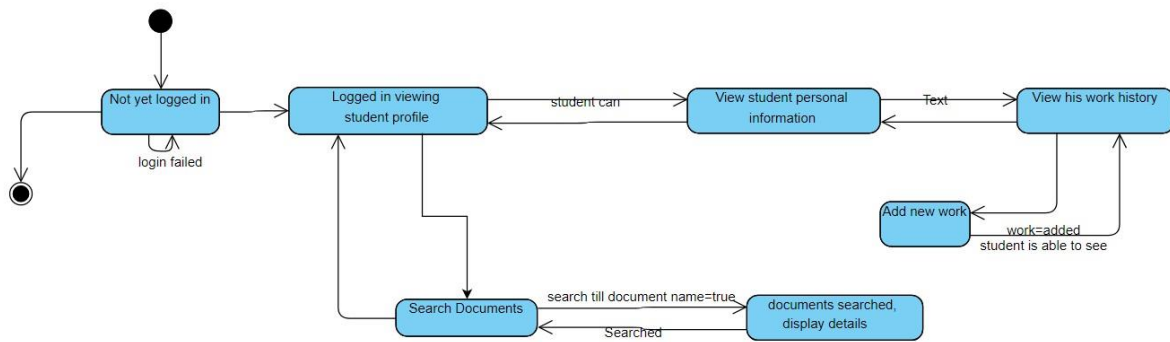# Communication diagram

Login

Behaviour state diagrams

Package diagram