Bahir Dar University

Bahir Dar Institute of Technology

Faculty of Computing

Industrial project on

Online distance education management system for Admass

University of College for Bahir Dar branch

Submitted to the Faculty of Computing in partial fulfilment of the requirements for the Degree of Bachelor of Science in Computer Science

Group members

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Bahir Dar, Ethiopia January, 2010 E.c

DECLARATION

This project en-titled "develop online distance education management system for Admass University of College" has read and approve as the requirement of the department of computer science in the partial fulfilment for the award degree of bachelor in computer science, Bahir Dar University.

Advisor Name	**signature**	**date**
Hailu Beshada (Msc)	**……. .**	**……**

Team member's	**Signature**	**date**
Abebaw Gebeyehu	**…….**	**……**
Awoke Alemayhu	**…….**	**……...**
Haimanot Abere	**……**	**…….**

Faculty: Computing

Program: Degree

Project Title: Online distance education management system for Admass University of Collage for Bahir Dar Branch

This is to certify that I have read this project and that in my opinion it is fully adequate, in scope and quality, as a project for the degree of Bachelor of Computer Science.

_____ _____

Name of Advisor **Signature**

Examining committee members	**Signature**	**Date**
1. Examiner 1	.....	.....
2. Examiner 2	.....	.....

It is approved that this project has been written in compliance with the formatting rules laid down by the faculty.

ROLES AND RESPONSIBILITIES OF THE GROUP MEMBERS

The following role assignment matrix and put a tick mark(✓) under each member in line with each task to indicate who has participated in carrying out the activities to produce the draft deliverable for discussion to the group so that they will discuss on the issue and come to consensus. Finally each group member will well understand the entire work of the project by sharing experiences among the Colleagues.

List of tasks	List of members		
	Abebaw Gebeyehu	Awoke alemayhu	Himanot Abere
Statement of the problem	✓		
Requirement gather	✓	✓	✓
Scope of the project		✓	✓
Objective of the project	✓	✓	
Back ground	✓	✓	✓
Use case	✓	✓	✓
Persistent model	✓	✓	✓
Class diagram	✓	✓	
Existing system	✓		✓
Use case description		✓	✓
Deployment model	✓	✓	
User interface	✓	✓	✓
Sequence diagram		✓	✓
User interface prototype	✓		✓
Activity diagram	✓	✓	✓
Benefit of the project		✓	
Component diagram	✓		✓
Proposed system	✓	✓	✓

ACKNOWLEDGMENT

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We would like to thank our advisor Mr. Hailu Beshada (Msc) who is best Guide for us. We are also like to thank Ato Degu Germew the Coordinator of Admass University of College Distance Education in Bahir Dar branch. And also we would like to thank ato Ayala Haile the coordinator of Admass University of Collage in Amahara region being open and volunteer to give information regarding to the organization. Finally, we would also like to thank our friends and classmates who co-operate us during the preparations of our project their ideas helps us a lot to improve our project.

ABSTRACT

The project entitled as develop online distance education management system for Admass University of College. Currently Admass University of College distance education uses a manual way of giving services to the Students. Because of this, there are a number of different challenges that are available in this organization such as lack of space to store records, human and computational error, and loss of data, hard to retrieve information, maintenance and so on. So that, to solve the problems we overcome with the new developed system that enhances the existing system which is computerized online system.

This system is implemented using the programming language PHP, uses the MySQL database and WAMP server. The purpose of the system is to manage the College and promote the name of the college throughout the world and also to reduce the problems. This online system is user friendly, error free and contains all the necessary details of the College. To conduct the project in effective and efficient manner we are gathered information by using different data collection methodology such as interview, observation, internet and Questions. As the result of developing new system we can get effective management of College activities.

ACRONYMS

MYSQL:	My Structure Query Language
HTML:	Hyper Text Mark-up Language
PHP:	Hyper Text Pre-processor
CD-R:	Compact Disk-Readable
RAM:	Random Access Memory
GPA:	Grade Point Average
UML:	Unified Modelling Language
PC:	Personal Computer
CSS:	Cascading Style Sheet
OS:	Operating System
MS:	Microsoft
Admin:	Administrator
HD:	Hard Disk
MB:	Megabyte
GB:	Gigabyte
GHZ:	Gigahertz
AUDEMS	Admass University Distance Education Management System
UC	Use case
UID	User Id
STUDID	Student Id
Dep-Head	Department Head
Ccode	Coures Code

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CHAPTER ONE

1. INTRODUCTION

In the lives of human being education is one of the most important thing that we need to interact with others. Education is not only learning at class room and having of any educational level certificates or graduating from College or University. It is getting or having any know how in any methods about something that is important for us to communicate with the rest of people or to perform any action (task). Even though we have ability to do something in any governmental or privet organizations or companies, we need to have certificates or graduating from College or University. So, we need to learn at Colleges or Universities.

As history of education going from the begging up to now, there are a lot and different challenges and success. As the generation changed and different technologies fabricated to education distributed to the whole world using different teaching and learning methods and education getting become easily accessible.

From different technologies that make teaching and learning process easily accessible, online distance education is the ability of teaching and learning process without going to the Collage or University. Teachers and administrators want the teaching learning process to be easy, exciting and effective. Allow educational institutions to utilize databases applications such as online registration, online uploading reading materials and post updated information thus making the accessing of records centralized.

1.1. Background of the Organization

The University innovated by two person and one non-governmental organizations namely ato GeberhamNway G/ Mikhail, Genet Mekonnen G/ Medhn and best hail yetbaberut Campania the initial capital of 200,000 birr. It was established in 1991 E.C. The main office is found in Addis Ababa.

The University has 56 branches in Ethiopia and 16 branches in our region. Among these branches one is in Bahir Dar city. The branch established in 1997 with the goals of offering relevant and quality undergraduate and post graduate education in the distance and general education programs.

Admass University distance education in Bahir Dar gives educational program for only distance learners since it is branched which cannot have full resource to give a program for regular Students , its history extends up to 13 years. At present many employees are working attached to several fields of study. Currently the existing system of managing the activities of the University is manual.

1.2. Existing System study

In existing system Admass University of collage Distance Education Management System works manually. So it is time consuming and tedious. The existing system of Admass University of collage Distance Education does not maintain the information regarding number of years or semesters in each course, Students' details in each semester, subjects of each semester, and exam and result details of each Student. The system announces the students' registration date with notice board and the Students come to office to register. Also Students see their result by coming at the branch office. There is no provision of dynamic management of events and notices.

At present many employees are working attached to several fields of study. Currently the existing system of managing the activities of the college is manual. All the process done manually at the canters and all the records are maintained on the papers. So the maintenance of the record is very difficult in the departments and as well as it's very difficult for the workers to check the record. The existing system is paper based, time consuming, monotonous, less flexible and provides a very hectic working schedule and difficult to search a document .

1.3. Statement of the problem

Currently the college faces different problems when registering Students and keeping the files of the College Students properly. These problems make the working of the College somewhat ambiguous for managing the College Students and entire tasks. Since the College uses human power for performing Student's registration and to keep the Students file it needs much more amount of cost to be paid for the professionals who work with in the registration office of the College and the activities within the registration system needs much more amount of time for performing tasks.

The other problem here is that the mismanagement of data is occurring, that means the records and files are documented in papers. This leads to loss of Student's files and records and there may be redundancy of data (the occurrence of one or more record redundantly or repeatedly). Since the registration system does not have their own database to store Students file, the files need much more storage space in the office. The other problem here is there is no any system for registering Students online, i.e. when Students need to register as the member of the College to take courses, they must physically come to the College unless they cannot register.

The main problem in the College is that there are loads of works in the office because Students come every time to register and take module and see their result and filling documents categorically is time consuming and tedious exercise. Keeping the information in the manual system leads to loss of records since the information of Students and staff are maintained by paper work.

So in order to reduce these problems we will develop online system for Admass distance Education University of College in Bahir Dar branch.

Generally keeping the information in the manual system leads to the following problems:

Poses question always: Filing the documents categorically is a time consuming and tedious exercise and also result of student may do not exist.

Retrieval: It becomes difficult to access and filter out documents easily.

Flexibility: any process done manually at the centres and the records are maintained on the papers, so the easily update of the record is difficult.

Slow Processing: is slow due to paper work and requirement of staff.

Loss of records: the chance of loss of records and damages of record is high. Almost Information's of students and staff or instructor are uses paper work, which is difficult and time consuming to access and search data and information.

Less secure: as it is vulnerable to unauthorized access; any one enters to the office see owners profile, edit manual document, data theft and unauthorized data modification as it's accessible by anyone who has access to the office.

1.4. Proposed system

After looking the existing system and identifying all the problems occurred during over all activities of the University of College, the project team has decided to develop online distance education management system for Admass University of College. The proposed system would solve the problem and limitation of the existing system seen above. After developing the proposed system is online at anytime and anywhere.

The proposed system will use the major functionality of the existing system and able to advance in accordance with speed, performance and efficiency with respect to existing system using new technologies.

1.5. Objective

1.5.1. General Objective

The general objective of the project is developing online distance education management system for Admass University of Collage in Bahir Dar branch.

1.5.2. Specific objective

The specific objective of our project is:

- Collect data, analyse and design the system requirements and identity problems of the existing system.
- Design or propose a new system that solves the problems in the existing system.
- Design user interface that allow Students to view Course result online and to download course material.
- Minimizing work load in the office.
- To develop a database that stores all information of Students and Staff members
- Developing and implementing a new system that meets the goals of the project.
- Finally testing the system to overcome the system function.

1.6. Scope of the project

There are different activities that performed in the system. It includes Online registration, online grade. Upload and Download module, Upload and Download assignments, Manage user account including create, update, deactivate and activate accounts. And also Update the Student information and contains other important material.

The project is limited to developing online education management system for Admass University of College distance Education in Bahir Dar branch.

1.7. Limitation of the Project

Due to the shortage of time and other mini projects the following activities are not include to be automated in the existing system. It is better to inform others who are interested to do on this project.

- ✓ Providing tutorial online
- ✓ Online examination
- ✓ Online video learning
- ✓ Online payment

1.8. Significant of the project

After completion of this project it will provide the following significant for Admass University of collage distance education for Bahir Dar branch.

- Providing full access of course material for Students.
- Allowing Students to receive and submit their assignment with short period of time without coming to the College.
- Eliminate preparation of modules per year and modules will be edited easily
- Reduce wastage of College's resource.
- Making course grade showing process simple.
- Minimize work overload of the employee.
- Enabling students to use today's ICT technology.

Specially our project used for the following

For the Students:

Easily access data without going to the College

Improve knowledge regarding to new technology

Helping themselves and parents economically

For the College:

Reduce money and time for preparation of modules

Minimize number of employees

Improve satisfaction of its Students

For the Employees:

Reduce job over load

Help Instructors to contact with their Students any time and any where

1.9. Constraint

During the development of small or wide project there may be expected some problems/obstacles. We face some problems starting from group arrangement to final during the development of the new system.

- Disagreement with the group arrangement

- Being confused to alter the project title
- Disappearance of college dean when we need
- Unavailability of data source (information gathering) and documents for references on time may extend the project completion time
- Being let to start the project lead us for shortage of Time
- When the student register at the first time to check the payments

1.10. Methodologies

Gathering data is a main thing to do or develop any system to solve existed problem the first thing is collecting relevant data. So, we try to use different data collection methods: Interview, Observation, Questionnaire and Internet are the main methods we use to collect information needed. For model designing of proposed system we will use Unified Modelling Language (UML) and we are going to develop user friendly system using PHP programming language at the back end.

1.10.1. Data collection methodology

The data collection process to conduct this project includes the qualitative data. This will be done through the use of instruments such as observations, interviewing, questioner and Internet. From these four data gathering tools, interview will be used to collect data from the office of the registrar and from the instructors. Observation will also be used to oversee the required things in the College.

1.10.1.1. Primary data collection

Observation:-We observed the distance education College activities as the Students are serve at the office and how the management carried out its managerial activities. We find out that the distance Education College indeed is in a great need for automation of its activities to realize its maximum potential.

The Student's files and courses files were not well managed by the current manual system, hence; we came up with this system to clearly outline the management. We also observe that the Student's records are not well protecting from unauthorized access, this implies that it can easily

access by someone. From our observation we noted that the manual system is not properly managed the whole activities of the distance education starting from Student records up to employee records.

Interview:-To get the basic information and background information about the existing management system, before interview the team members we use a systematic sampling techniques. We select Coordinator of the organization because of the Coordinator well knows about the organization work follow and structures in detail. And also we interview Students because of the Students easily know the problem of the Collage, and the problems associate with that environment.

Questionnaire:-we prepare question to get more information. Because when we use observation and interview data gathering methodology we cannot get enough information about the Collage. So we select the Collage Coordinator and give the Question. The condition occurs by question and answer with the Admass University of Collage Coordinator.

1.10.1.2. Secondary data collection

Internet:-to get more information and other guide line of the distance learning management

1.11. System development approach

We use object oriented programming of system methodology to develop Proposed system .choose OOP approach from structured one is because of increase usability and also it supports inheritance, encapsulation, abstraction and polymorphism.

- Is more secure as having data hiding feature.
- Provides more abstraction more flexibility.
- Models the real world more clearly.
- Object is reusable.

And next this system uses an Iterative model Approach, Because of selecting this approach from other approaches its projects the development process in cyclic manner repeating every step after

every cycle of software development cycle. Therefore this model is used to discover errors easily. In this development model the software is first developed on every small scale and all the steps are followed which are taken consideration then added to the software. And this model is easier to manage and perform the development process. It has also the ability to back up the system. This means the developers got comment from users, friends and from ours until the team have finished the project

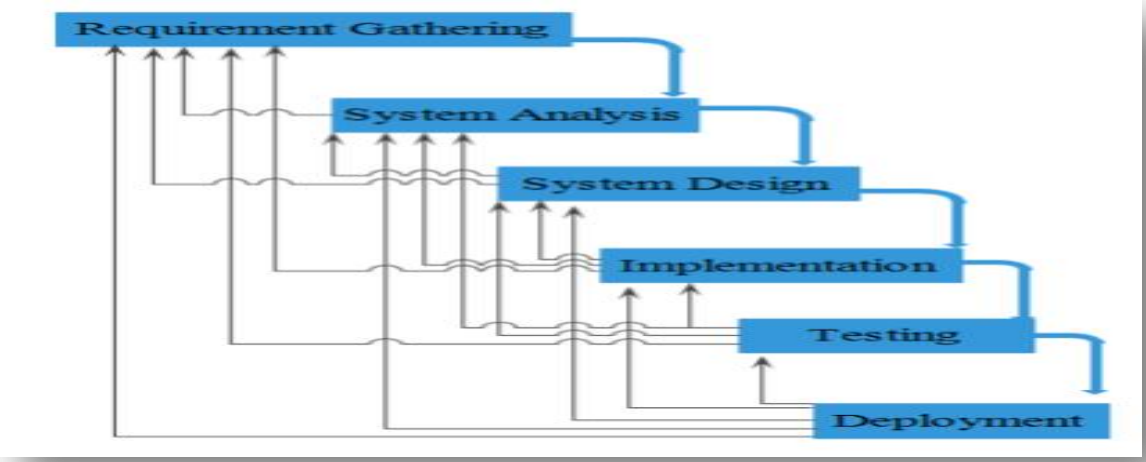

Figure1. 1 Iterative model approach

1.12. System Development Tools

In developing this project we will use different software tools. Some of them are include HTML-which is used to design the user interface for client side by creating forms to receive input from users and display output. WAMP server and the programming languages PHP- which is a server side scripting language used in order to collect information from the user interface storing in a data base and retrieving data from the database and displaying the data retrieved on the user interface and used for validation, MY-SQL server- a database management tool that uses popular SQL for adding, accessing and processing data in a database**.**

1.13. **Specification for the project**

To develop or work on this system (project) as it is online, we need different tools .These development tools are hardware tools and software tools both collaboratively work to achieve specific goals. Hardware tools are all tools that we touch and help to work with the project. Software tools that give instructions or programs for hardware that help us to simplify work. Here are some development tools for both hardware and software:-

1.13.1. Hardware requirement specification

Any Computer: - to work our project

Flash memory and other: - to store files

1.13.2. Software requirements specifications

- Microsoft word :-to write documentation
- Microsoft power point - used to prepare presentation slid.
- Notpad++ (HTML):- to write html, php code.
- Local validation(PHP):- check the validation of the user
- Server side language (PHP):- to connect html code into server side program.
- Database(My Sql):- for database
- Web Server(WAMP server):-to run php code
- Web Browser (Internet Explorer 8/ Mozilla Firefox and others)
- Operating system (Server Side and Client Side) can be any Windows operating system.
- Client end language(HTML)
- UML to draw different Diagram

CHAPTER TWO

2. SYSTEM FEATURE

2.1. Introduction

In this chapter we are going to describes Overview of the existing system and proposed system that are forwarded by us to solve those problems by developing system, and its essential use case diagrams, user interface prototype, activity and sequence diagram will be discussed. The existing system that we have observed is faced a lot of problems, due to this reason we analyse those problems to provide some alternative solutions.

2.2. Overview of the existing system

As we discussed in statement of problem and proposed solution section, the existing teaching and learning system of Admass University of College distance Education is manual. It is different from proposed system that we are going to develop and the existing system faced various problems.

In existing system distributing modules, allocating assignments and showing Student grade are performed through hard copy of papers. Students to add and drop courses they are going to the registrar and fill forms to announce by the college. Before the students are starting the class in the College they must be register. To be register by the College the give request to the registrar, the registrar office views their request and approves their request if the students full the rule of the college. Registrar offices give ID for those students. The Student views the announcement and other new information only through by going to the offices notice board.

The Coordinator administrators the college facilities and programs to be done.. Asks each department for Instructors/Tutors and arrange tutorial classes according to the schedule. Production and distribution materials like (modules, pen and Paper) exams, and any other needed material and distributes those materials. This unit takes the number of Students from the

Coordinator office and duplicates the materials according to the number of students or takes the number of material to be produced.

Instructors selected from each department conduct the classes, exam, and correct the exam, and submit result to registrar with hard copy. The registrar unit sends copy of the grade to the Student.

2.3. Overview of the proposed system

After looking the existing system and identifying all the problems occurred during over all activities of the University of College, the project team has decided to develop online distance education management system for Admass University of College. The proposed system would solve the problem and limitation of the existing system seen above. After developing the proposed system is online at anytime and anywhere.

The proposed system will use the major functionality of the existing system and able to advance in accordance with speed, performance and efficiency with respect to existing system using new technologies.

It Minimize the extravagancy of the College's resource, Reduce the time taken and task required to perform a certain operation in the College, and also improve speed, efficient, Flexibility and reliability of teaching and learning process , Reduce the work load of employees in the College.

The Student gets satisfaction of the speed provided by the Instructor, Coordinator in material distributing, seeing course result, grade and submitting assignment. And it improves the moral (motivation) of the users.

The Instructors easily contact with students anytime and anywhere they need. It helps give and see assignment of Students. Can easily edit and distribute course materials.

2.4. Requirement specification

In requirement specification there are two main ideas defined or explained functional requirement (what things are performed by the system that we developing) and non-functional (what are system aspects). So, it consist two parts: - Functional Requirement and Non-functional Requirement.

2.4.1. Functional Requirement

Functional requirement explains and describes what things are performed by the system. Describe user tasks that the system needs to support. Generally it's the interaction between the system and the users or functionality we are going to get from this system. Functional requirements also capture the intended behaviour of the system. This behaviour may be expressed as services. The following are some functionality of proposed system:-

System Administrator

REQ-1: The system shall allow System Administrator to Create User Account

REQ-2: The system shall allow System Administrator to Update User Account

REQ-3: The system shall allow System administrator to Deactivates User Account

REQ-4: The system shall allow System administrator to Activates User Account

REQ-5: The system shall allow System Administrator to change Password

Student

REQ-1: The system shall allow the Student to view announcement

REQ-2: The system shall allow Student to view comment.

REQ-3: The system shall allow Student to Apply to register

REQ-4: The system shall allow Student to view grade

REQ-5: The system shall allow Student to download assignment question

REQ-6: The system shall allow Student to upload assignment answer

REQ-7: The system shall allow Student to download Module

REQ-8: The system shall allow Student to give comment.

REQ-9: The system shall allow Student to add or drop course.

Registrar officer

REQ-1: The system shall allow the Registrar officer to Register Students

REQ-2: The system shall allow Registrar officer to register Department

REQ-3: The system shall allow Registrar officer to give comment

REQ-4: The system shall allow Registrar officer to register course

REQ-5: The system shall allow Registrar officer to Generate report

REQ-6: The system shall allow Registrar officer to view comment

REQ-7: The system shall allow Registrar officer to grade report

REQ-8: The system shall allow Registrar officer to view curriculum

Coordinator

REQ-1: The system shall allow Coordinator to Assign Instructor

REQ-2: The system shall allow Coordinator to Post announcement

REQ-3: The system shall allow Coordinator to view comment

REQ-4: The system shall allow Coordinator to add curriculum

REQ-5: The system shall allow Coordinator to view report

REQ-6: The system shall allow Coordinator to give comment

REQ-7: The system shall allow Coordinator to manage course

REQ-8: The system shall allow Coordinator to upload module

Instructor

REQ-1: The system shall allow Instructor to upload assignment question

REQ-2: The system shall allow Instructor to download assignment Answer

REQ-3: The system shall allow Instructor to download Module

REQ-4: The system shall allow Instructor to give comment

REQ-5: The system shall allow Instructor to view comment

REQ-6: The system shall allow Instructor to view announcement

Department-Head

REQ-1: The system shall allow department head approve result

REQ-2: The system shall allow department head give comment

REQ-3: The system shall allow department head to view curriculum

REQ-4: The system shall allow department head to view comment

2.5. System use case

A use case diagram is a summary of who uses the system and what they can do with it. It describes the relationship among the requirements, users and the major components of the system. Use case diagram shows the relationships between users (actors) and use cases with in a system or applicant. They provide an overall view of how the systems are used and the various roles and actions that take place within the system

Table2. 1 Selection of actors and use case

Actors	Use case	
• Administrator • Instructor • Student • Registrar • Dep-Head • Coordinator	• Register • *Login* • *Logout* • View Grade • View Comment • Submit Result • Update Account • Create Account • Deactivate Account • Activate Account • Add Curriculum • Post Announcement • Add/drop course • View profile • Update password	• Apply to register • Upload/Download assignment question/Answer • Download/Upload module • Sublimit Result • Approve Result • View announcement • View Comment • Give Comment • Register Student • Register Department • Register Course • Assign Instructor • View Report • Generate report

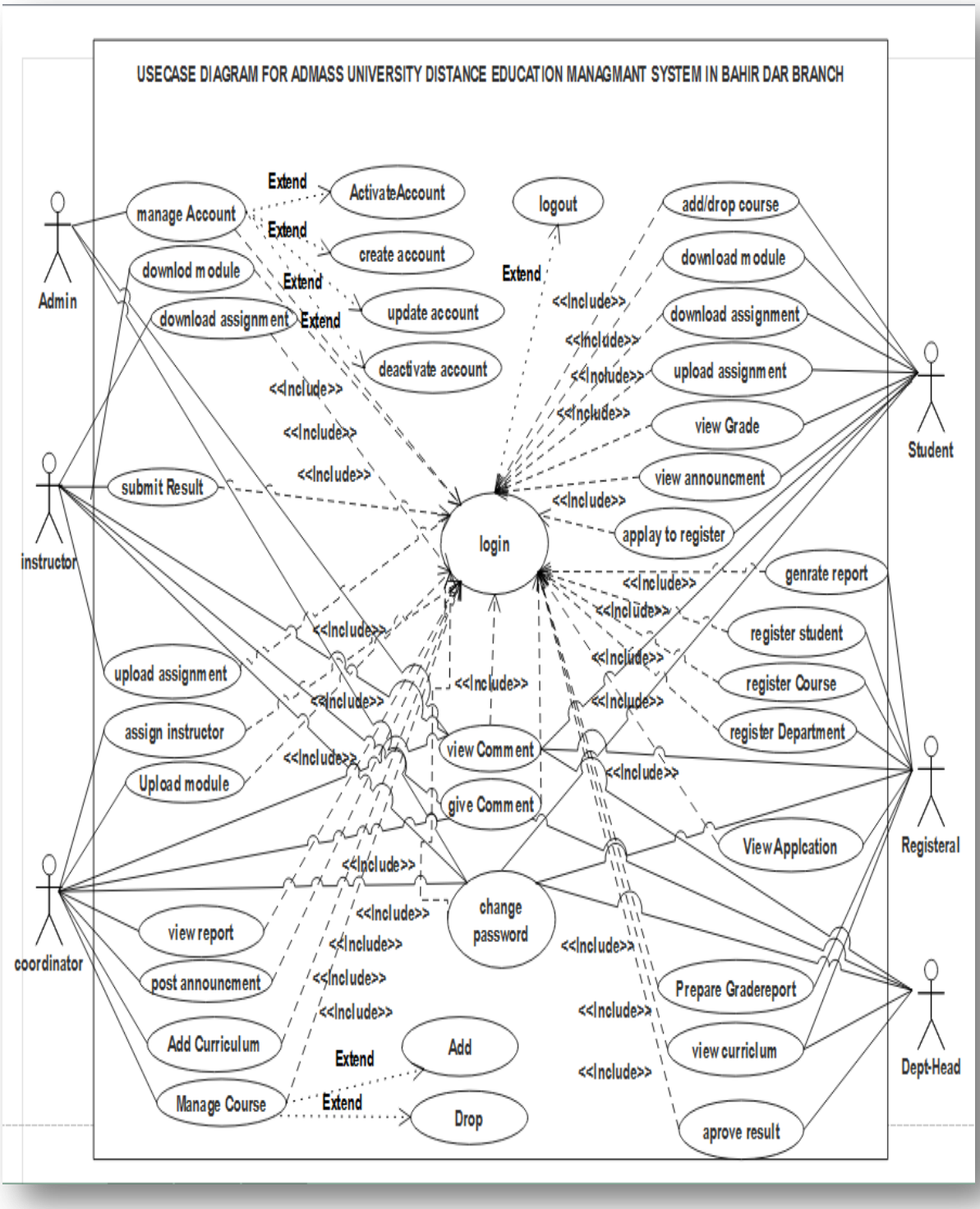

Figure2. 1 System use case diagram

2.5.1. Use Case Documentation

Table2. 2 Login Use Case Description

Use Case Name	Login
Identifier	Uc1
Description	All the actors must be login first before using the system by users own account in order to perform their action.
Actor	System admin, Coordinator, Registrar-officer, Instructor, student and department head are actors of this System
Pre-condition	The user who wants to login must have user name and password.
Post-condition	The authenticated user gets the appropriate page. User gets access to the system according to their predefined system privilege and Finally the user can logout or turn off the page.
Extendes	Logout
Include	_____
Flow of events step	1. Select the login link 2. The system displays the login form 3. Fill user name and password 4. System validates user name and password. 5. The system displays the appropriate page.
Alternative flow	If user name and password are incorrect return bake to step 2 in flow event

Table2. 3 Manage account Use Case Description

Use case name	Manage account
Identifier	Uc2
Description	1. System admin manages users' account that extends update, create, deactivate and activate accounts. 2. Admin Updates user account like changing user name and password. 3. Admin Creates new account for instructors, student, registrar, Coordinator and Department head 4. Admin Deactivate User account 5. Admin Activate User account
Actor	Admin
Pre-condition	Account is created for all, Students to have account they must be registered first Admin should have to enter a valid user name and password in order to create, update, activate and deactivate user account.
Post-condition	1. You update, create, deactivate and activate user account successfully message will be displayed. 2. Finally logout from the page.
Extends	Update, create, activate, deactivate account
Include	Login
Flow of event step	1. Admin should have to choose account item 2. Then click on the selected account item. 3. Then Admin should have to update, create, deactivate and activate. The user's account.
Alternative flow	Confirmation/rejection message will be displayed and the admin try again to manage user account.

Table2. 4 Description of Upload module use case

Use-case name	Upload module
Identifier	Uc3
Description	The process will start by activating the system or the window or the home page and click login link then form will be displayed.
Actor	Coordinator
Pre-condition	The Coordinator should prepare file to upload And Coordinator should have to enter a valid user name and password.
Post-condition	Upload module successfully. Finally logout from the page
Extends	_____
Include	Login
Flow of event steps	1. The Coordinator should clicks on upload Module link. 2. Coordinator should have to click on browse the file button 3. browses where the file to be uploaded 4. Then click on upload button. 5. Display success full message
Alternative flow	If the size or type of file to be uploaded is out of size, the Coordinator should try to upload the file.

Table2. 5 Download module use case Description

Use-case name	Download module
Identifier	Uc4
Description	The process will start the Student and Instructor by activating the system or the window and the home page and click login link then form will be displayed.
Actor	Student, Instructor
Pre-condition	1. There should be download module. 2. Student must insert his/her ID number as user name and password.
Post-condition	1. Download module material successfully 2. Finally logout from the page
Extends	_____
Include	Login
Flow of event step	1. The Student should click on download module link. 2. He/she enter module code and module name 3. Student click on download file button
Alternative flow	if file not downloaded it shows No file message and the Student try to down load the file

Table2. 6 download Assignment use case Description

Use-case name	Download assignment
Identifier	Uc5
Description	This process can be performed by Instructor as well as student. 1. An instructor can download assignment answers submitted by Student. 2. Student can download assignment questions that uploaded by Instructor.
Actor	Instructor, Student
Pre-condition	There should be uploaded assignment questions to Students and There should be submitted assignment answer for Instructor.
Post-condition	1. The assignment was downloaded successfully. 2. Finally logout from the page
Extends	_____
Include	Login
Flow of event step	1. The user click on download assignment link 2. User enters course code and course name. 3. Then user press on download button.
Alternative flow	If no uploaded assignment no file message will be displayed

Table2. 7 Upload assignment use case Description

Use-case name	Upload assignment
Identifier	Uc6
Description	This process can be performed by instructor as well as Student. 1. An Instructor uploads assignment questions for Student. 2. Student uploads assignment solutions submit for Instructor.
Actors	Instructor ,Student
Pre-condition	1: An Instructor must prepare assignment questions to upload. 2: Students must do their assignment to submit
Post-condition	1. The assignment was uploaded successfully. 2. Finally logout from the page
Extends	_____
Include	Login
Flow of event step	1. The user click on upload assignment link 2. User fills the form. 3. Then he/she press on upload button 4. The system should have to check the submission date.
Alternative flow	If submission date has been passed the Student cannot upload the assignment so, Student must submit on the provided date.

Table2. 8 Register student use case Description

Use case name	Register student
Identifier	Uc7
Description	Registrar office registers Students who fulfil necessary criteria. Send information of Student for Instructor, Academic dean
Actor	Registrar officer
Pre-condition	1 Registrar officer enters valid user name and password to get Student registration form.
Post-condition	1. Instructor can access the registered Student list 2. Finally logout from the page
Extends	_____
Include	Login
Flow of event step	1. The registrar officer fills the basic information of the Student. 2. After completion of filling the form he/she click on register button. 3. If ID repetition occurs the error message will be displayed
Alternative flow	If the same id is present on the same academic year the system displays this Student already registered message. So the registrar officer must give unique ID for each Student on the same academic year.

Table2. 9 Register department use case Description

Use case name	Register Department
Identifier	Uc8
Description	Registrar office registers Department which is add to the system by Coordinator
Actor	Registrar officer
Pre-condition	1 Registrar officer enters valid user name and password to get Department registration form.
Post-condition	1. Registrar officer can access the registered Department list 2. Finally logout from the page
Extends	_____
Include	Login
Flow of event step	1. The registrar officer fills the basic information of the Department. 2. After completion of filling the form he/she click on register button. 3. If Department ID repetition the error message will be displayed
Alternative flow	If the same id is present on the same academic year the system displays this course already registered message. So the registrar officer must give unique ID for each course on the same academic year.

Table2. 10 Register course use case Description

Use case name	Register Course
Identifier	Uc9
Description	Registrar office registers course which is add to the system by Coordinator
Actor	Registrar officer
Pre-condition	1 Registrar officer enters valid user name and password to get course registration form.
Post-condition	1. Registrar officer can access the registered course list 2. Finally logout from the page
Extends	_____
Include	Login
Flow of event step	1. The registrar officer fills the basic information of the course. 2. After completion of filling the form he/she click on register button. 3. If occurs ID repetition the error message will be displayed
Alternative flow	If the same id is present on the same academic year the system displays this course already registered message. So the registrar officer must give unique ID for each course on the same academic year.

Table2. 11 View comment use case Description

Use case name	View Comment
Identifier	Uc10
Description	Student, Admin, Coordinator, Registrar, Instructor and Department head can view comment.
Actor	Student, Admin, Coordinator, Registrar, Instructor and Department head
Pre-condition	1. There should be posted comment by Student, Admin, Coordinator, Registrar, Instructor and Department head. 2. They should have to enter a valid user name and password in order to view comment.
Post-condition	1. The system displays the comment of the staff. 2. Finally logout from the page.
Extends	_____
Include	Login
Flow of event step	1. They click on view comment link. 2. The system display comment 3. Then staff clicks on view button.
Alternative flow	If the comment giver fills incorrect user name and password try again.

Table2. 12 Change Password use case description

Use Case Name	Change password
Identifier	Uc11
Description	To change the current password.
Actor	System admin, Coordinator, Registrar-officer, Instructor, Department head and Student.
Pre-condition	The user should have an account and the users should know the current password to change them.
Post-condition	The system display password is changed successfully message.
Extends	_____
Include	Login
Flow of events step	1. Select the change password link 2. The system displays the change password form 3. Fill current password and new password confirm password. 4. The system displays password is changed successful.
Alternative flow	If current password and new password confirm password. Incorrect Tri again

Table2. 13 Apply to Register use case description

Use case name	Apply to register
Identifier	Uc12
Description	The Students send request to Register
Actor	Student
Pre-condition	1 The system display home page and contains the apply links.
Post-condition	1. The system display request is sent successfully
Extends	_____
Include	Login
Flow of event step	1. Student clicks on apply link. 2. Then he/she fills the form of the apply link. 3. Then he/she click on apply button.
Alternative flow	If the Student fills incorrect apply the system display try again the apply request.

Table2. 14 Assign Instructor use case description

Use case name	Assign instructor
Identifier	Uc13
Description	The Coordinator assign Instructor to the students
Actor	Coordinator
Pre-condition	To assign the instructor First the instructor present in the Collage
Post-condition	1. The Instructor assign successfully 2. Finally logout from the page.
Extends	_____
Include	Login
Flow of event step	1. Coordinator clicks on assign Instructor link. 2. Then Coordinator fills the form. 3. Then Coordinator clicks on assign instructor.
Alternative flow	If the Coordinator fills incorrect form must check it.

Table2. 15 post announcement use case description

Use case Name	post announcement
Identifier	Uc14
Description	The announcement should be posted by the Coordinator
Actor	Coordinator
Pre-condition	The announcement upload by Coordinator
Post condition	Successfully add, successfully update and successfully delete
Extends	_____
Include	Login
Flow of events	1. Execute browser 2. open the home page 3. click on user menu for login 4. select user type as dean which is displayed in the page 5. Fill the login information 6. click on Submit button 7. hover on access menu and click on announcement 8. Access and manage the event and news module like add, update and delete the event and news information
Alternative action	Successfully add, successfully update and successfully delete

Table2. 16 view report use case description

Use case name	View report
Identifier	Uc15
Description	The report should be send by the registrar
Actor	Coordinator
Pre-condition	1 The report sends by the registrar. 2 The Coordinator should insert valid user name and password to view the report.
Post-condition	1. Coordinator views the report. 2. Finally logout from the page.
Extends	_____
Include	Login
Flow of event step	1. Coordinator clicks on view report link. 2. Then he/she fills View report code. 3. Then he/she click on view button.
Alternative flow	If the registrar fills incorrect Report he/she must check it.

Table2. 17 Generate report use case description

Use case name	Generate report
Identifier	Uc16
Description	From this use case the registrar generate report
Actor	Registrar
Pre-condition	1. There should be generating report. 2. Registrar should have to enter a valid user name and password in order to generate report.
Post-condition	1. The report is generate successfully 2. Finally logout from the page.
Extends	_____
Include	Login
Flow of event step	1. Registrar clicks on generate report link. 2. Then he/she fills generate report code. 3. Then he/she click on view button.
Alternative flow	If the Registrar fills incorrect Report he/she must check it.

Table2. 18 View Announcement use case description

Use case name	View Announcement
Identifier	Uc17
Description	The Student View announcement posted by Coordinator
Actor	Student
Pre-condition	1. There should be posted announcement by Coordinator. 2. The Student should have to enter a valid user name and password in order to View announcement.
Post-condition	1. The system displays the announcement of the Student. 2. Finally logout from the page.
Extends	_____
Include	Login
Flow of event step	1. Student clicks on view announcement link. 2. The system display announcement 3. Then Student clicks on view button.
Alternative flow	If the Student fills incorrect view announcement system admin must check it.

Table2. 19 view grade use case description

Use case name	View Grade
Identifier	Uc18
Description	Students need to view their grades
Actors	Student
Pre-condition	Enter Username and Password to login
Post-condition	Grades are available for students.
Extends	_____
Include	Login
Flow of events	1. A user selects the view grade option. 2. System request what the user needs. 3. The user selects the course grade to be displayed. 4. The system displays the request grade automatically. 5. The user views the grade. 6. Use case ends.
Alternative Flow of events:	1. The requested course grade is not complete to be viewed. 2. The system prompts the student the request grade is not complete. 3. The system returns to step 2 of normal course. 4. Use case ends.

Table2. 20 Give Comment use case descriptions

Use case name	Give Comment
Identifier	Uc19
Description	Student, Department Head, Instructor, Coordinator, Registrar Give Comment to the staff members.
Actor	Student, Department Head, Instructor, Coordinator, Registrar
Pre-condition	1. There should be posted Comment by Student, Department Head, Instructor, Coordinator and Registrar. 2. The Staff should have to enter a valid user name and password in order to give Comment.
Post-condition	1. The system displays the Comment of the Staff. 2. Finally logout from the page.
Extends	_____
Include	Login
Flow of event step	1. Instructor clicks on Give Comment link. 2. The system display Comment 3. Then Staff clicks on Give button.
Alternative flow	If the Staff fills incorrect Give Comment system the system must display pleas try again message.

Table2. 21 Submit Result use case description

Use case name	Submit Result
Identifier	Uc20
Description	The Instructor insert the result of Students
Actors	Instructor
Pre-condition	1. First Enter Username and password to login
Post-condition	The Instructor the student results in to registrar.
Extends	_____
Include	Login
Flow of events	1. Instructor selects the submit option. 2. System displays submit result page. 3. Instructor selects which course result to be submit. 4. The system submit result Use case ends.
Alternative Flow of events	1. System check the data entered. 2. System inform to the Instructor, you enter incorrect data or empty data and re-enter. 3. The system returns to step 2 of normal course. **3.** Use case ends.

Table2. 22 Add curriculum use case description

Use case name	Add curriculum
Identifier	Uc21
Description	To describe how the Coordinator add course curriculum in to the system
Actors	Coordinator
Pre-condition	First Enter Username and password to login
Post-condition	The Coordinator Add course curriculum into the system
Extends	_____
Include	Login
Flow of events	1. The Coordinator selects the add course curriculum option. 2. System displays add course curriculum page. 3. The Coordinator selects which course curriculum to be posted in to the system.
Alternative Flow of events	1 System check the data entered. 2 System inform to the Coordinator, you enter incorrect data or empty data and re-enter. 4. The system returns to step 2 of normal course. 5. Use case ends.

Table2. 23 Add/Drop Course use case description

Use case name	add/drop Course
Identifier	Uc22
Actor	Student
Description Actors	To describe how the Student add/drop Course
Pre-condition	First Enter Username and password to login in order to access the system
Post-condition	The Student performs the activities Add or Drop Courses.
Extends	_____
Include	Manage Course
Flow of events	1. The Student selects the add/drop form. 2. System displays add /drop course form. 3. Then Students fill the appropriate information to add/drop course.
Alternative Flow of events	1 System check the data entered. 2 System inform to the student, you enter incorrect data or empty data and re-enter. 3 The system returns to step 2 of normal course. 4 Use case ends.

Table2. 24 View Curriculum use case description

Use case name	View Curriculum
Identifier	Uc23
Description	To describe how the Department Head, Student and Registrar office view the course Curriculum
Actor	Department Head, Student and Registrar office
Pre-condition	1 The Curriculum view by them. 2 They should insert valid user name and password to view the Curriculum
Post-condition	1. Department Head, Student and Registrar office views the Curriculum. 2. Finally logout from the page.
Extends	_____
Include	Login
Flow of event step	1. They clicks on view Curriculum link. 2. Then they fill view Curriculum. 3. Then they click on view report button.
Alternative flow	If they fills incorrect View Curriculum system admin must check it.

Table2. 25 Approves result use case description

Use case name	Approve result
Identifier	Uc24
Description	To Describe how the Department Head approves the result which generated by the registrar
Actor	Department Head
Pre-condition	Department Head enters valid user name and password to approve the result.
Post-condition	1. The Department Head can access the approve result form to perform its action 2. Finally logout from the page
Extends	_____
Login	Login
Flow of event step	1. The Department Head fills the basic information to approve result**.** 2. After completion of filling the form he/she click on approve result button. 3. If ID repetition occurs the error message will be displayed
Alternative flow	If the Department Head fills incorrect approve result system admin must check it.

Table2. 26 view result use case description

Use case name	View result
Identifier	Uc25
Description	The Students can view the result of the course including assignments and final exam posted by the Instructor.
Actor	Student
Pre-condition	1. There should be posted result by instructor. 2. Instructor should have to enter a valid user name and password in order to post course result.
Post-condition	1. The result of the course will be displayed successfully 2. . Finally logout from the page.
Extends	_____
Login	Login
Flow of event step	1. Student clicks on view course result link. 2. Then he/she fills course code. 3. Then he/she click on view button.
Alternative flow	If the Student fills incorrect course code he must check it.

2.6. Business rule

This part specifies and gives understanding of activities which are being done in the existing system in terms of business rule. Admass University distance education office is the one who is responsible to control the overall teaching learning process. The office Determines registration date and clarify required criteria like Student qualification before registration applicants who want to join Admass University of Collage must have full of documents and qualification of Ministry of education certificates. Student should be registered on the specified registration date. Each Student should have unique identification card to be identified. Student should have to pay education fee to get access in this program.

To join in Admass University of Collage distance education, to register for one field of study there must be greater than 40 applicants for a single department. Choice of field study is based on the applicant's interest.

2.7. User interface prototype

Prototype is asimulation of real thing.Itis also amodel of system or subsystem under syatem. The prototyes of the system can shown in paper based or computer based. They can model the entire system with real data or just afew screan with sample data. Prototyping is the process of developing prototype. Is a one method of requirement analysis technique. The following prototype shows AUDEMS system:

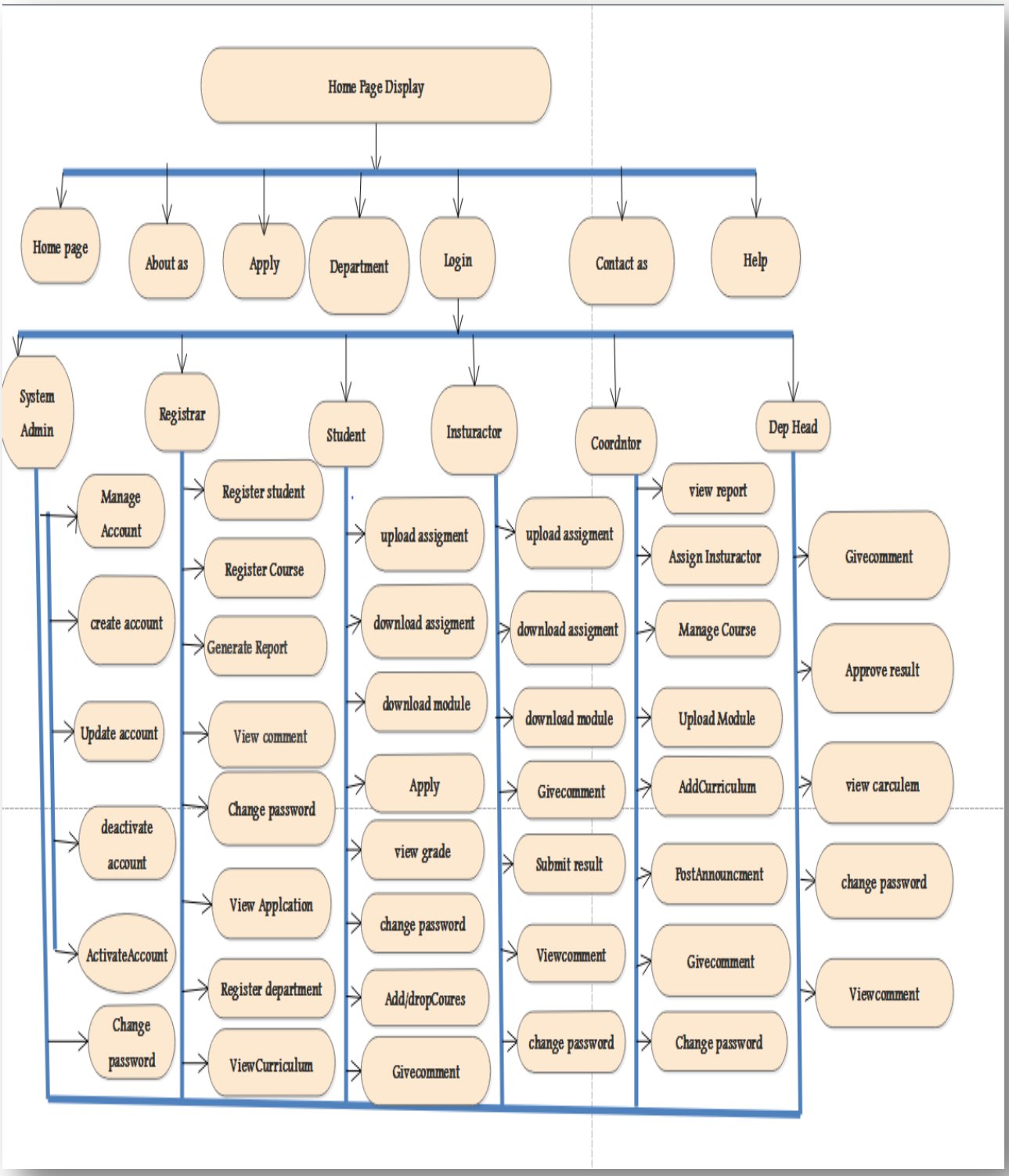

Figure2. 2 user interface prototype

2.8. Activity diagrams

Activity diagrams, which are related to program flow plans (flowcharts), are used to illustrate activities. In the external view, we use activity diagrams for the description of those business processes that describe the functionality of the business system. Contrary to use case diagrams, in activity diagrams it is obvious whether actors can perform business use cases together or independently from one another. Activity diagrams allow you to think functionally. Purists of the object-oriented approach probably dislike this fact.

On the other hand, regard this fact as a great advantage, since users of object-oriented methods, as well as users of functional thinking patterns, find a common and familiar display format, which is a significant aid for business-process modelling. Because it is possible to explicitly describe parallel events, the activity diagram is well suited for the illustration of business processes, since business processes rarely occur in a linear manner and often exhibit parallelisms. Activity diagrams can be developed in various degrees of detail. They can be refined step by step. In the external view, activity diagrams, just like use case diagrams, exclusively.

Login and Create account activity diagram

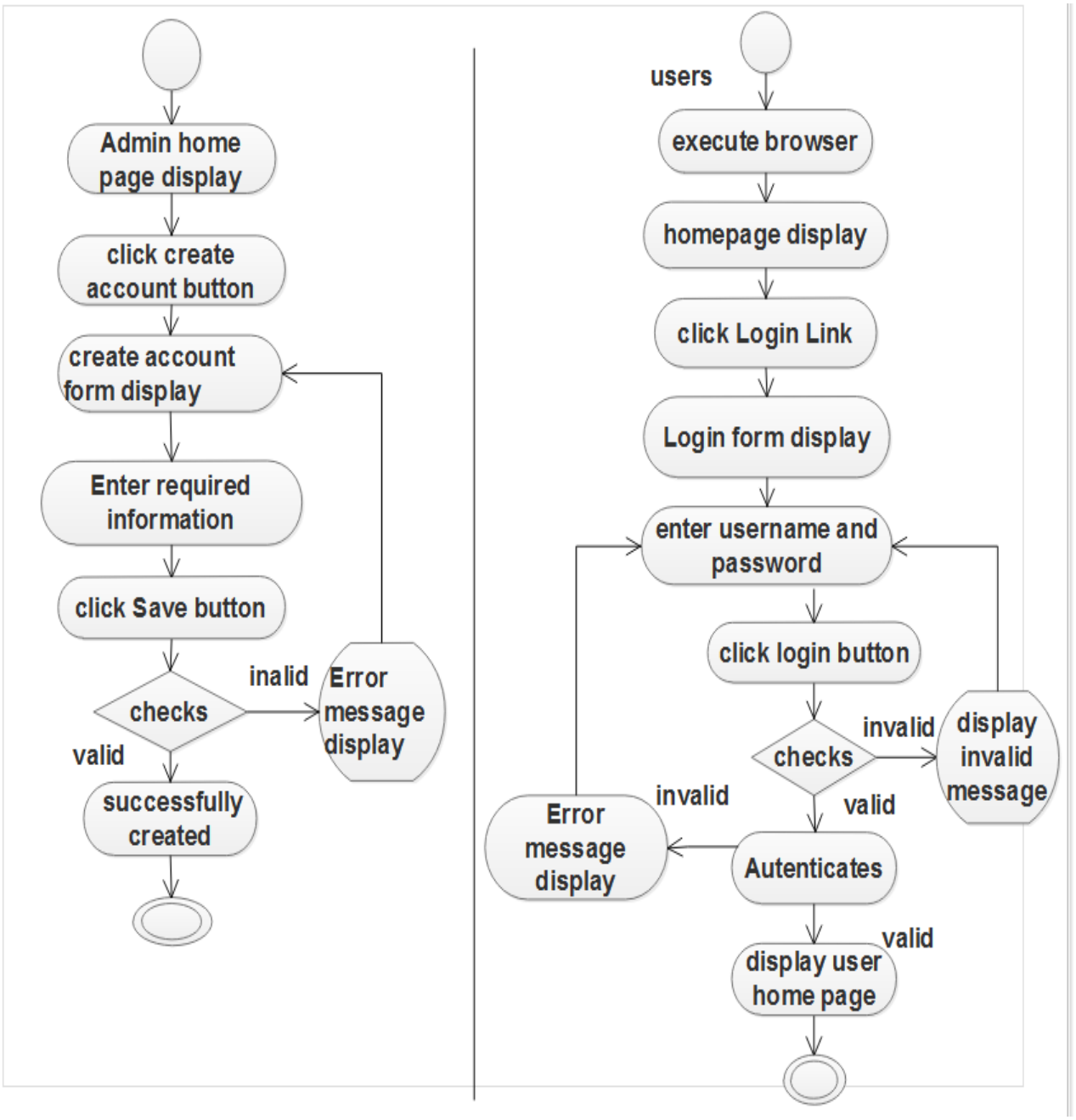

Figure2. 3 Login and Create account activity diagram

Activate, Deactivate and Update activity diagram

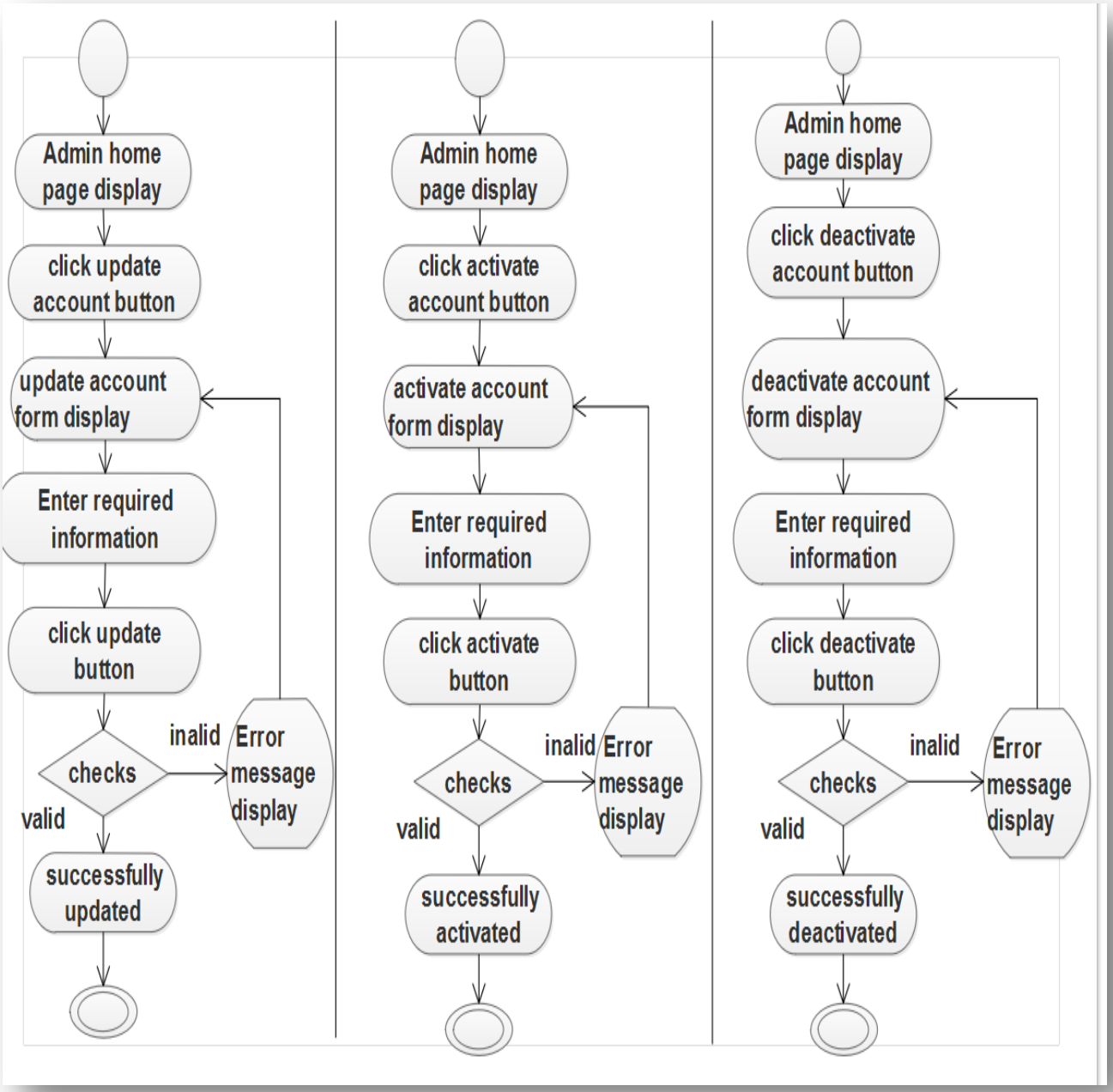

Figure2. 4 Activate, Deactivate and Update activity diagram

Student registration and Assign Instructor activity diagram

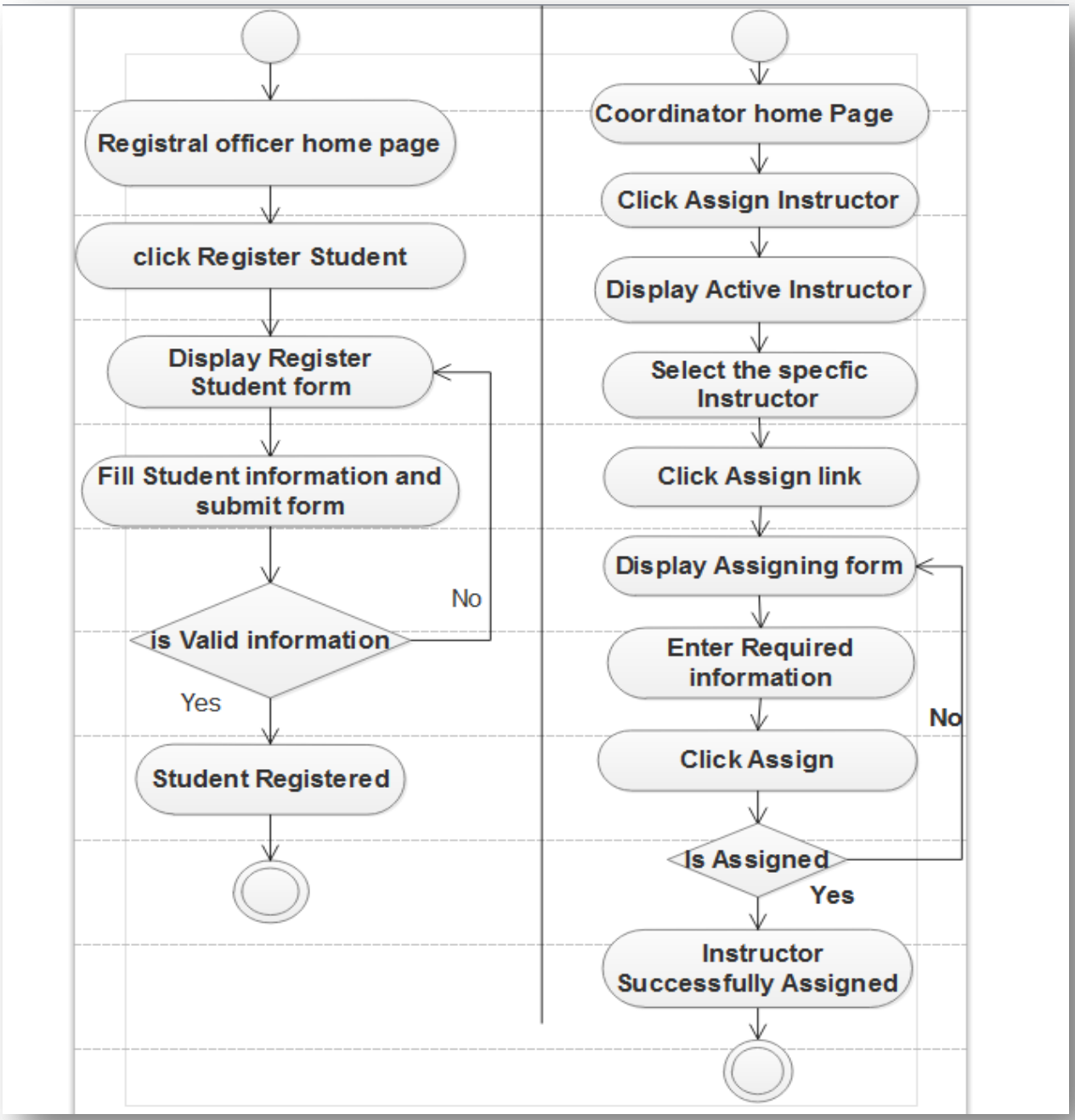

Figure2. 5 Student registration and Assign Instructor activity diagram

Download assignment Question and Solutions activity diagram

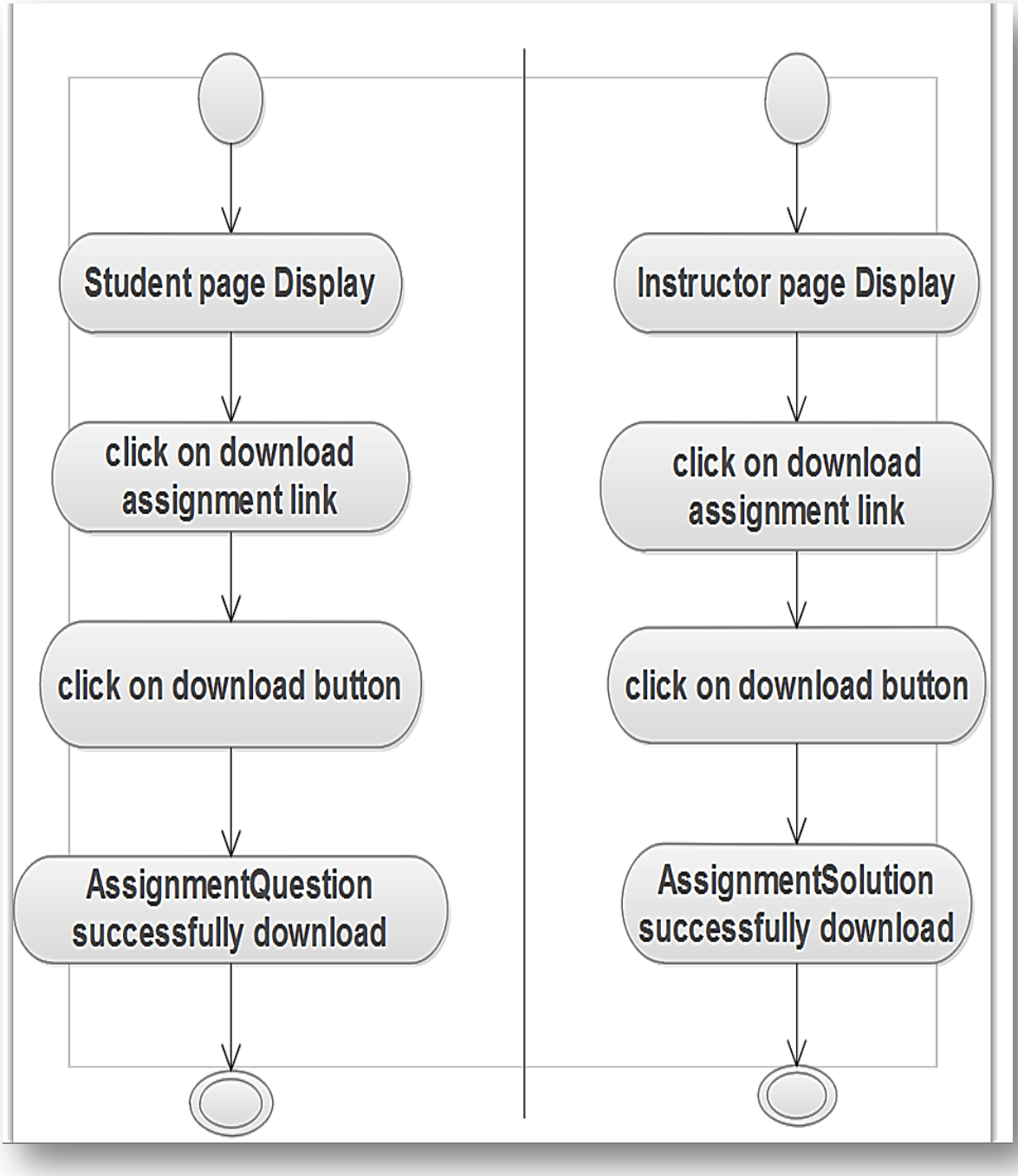

Figure2. 6 Download assignment Question and Solutions activity diagram

Upload and Download Module and Logout Activity Diagram

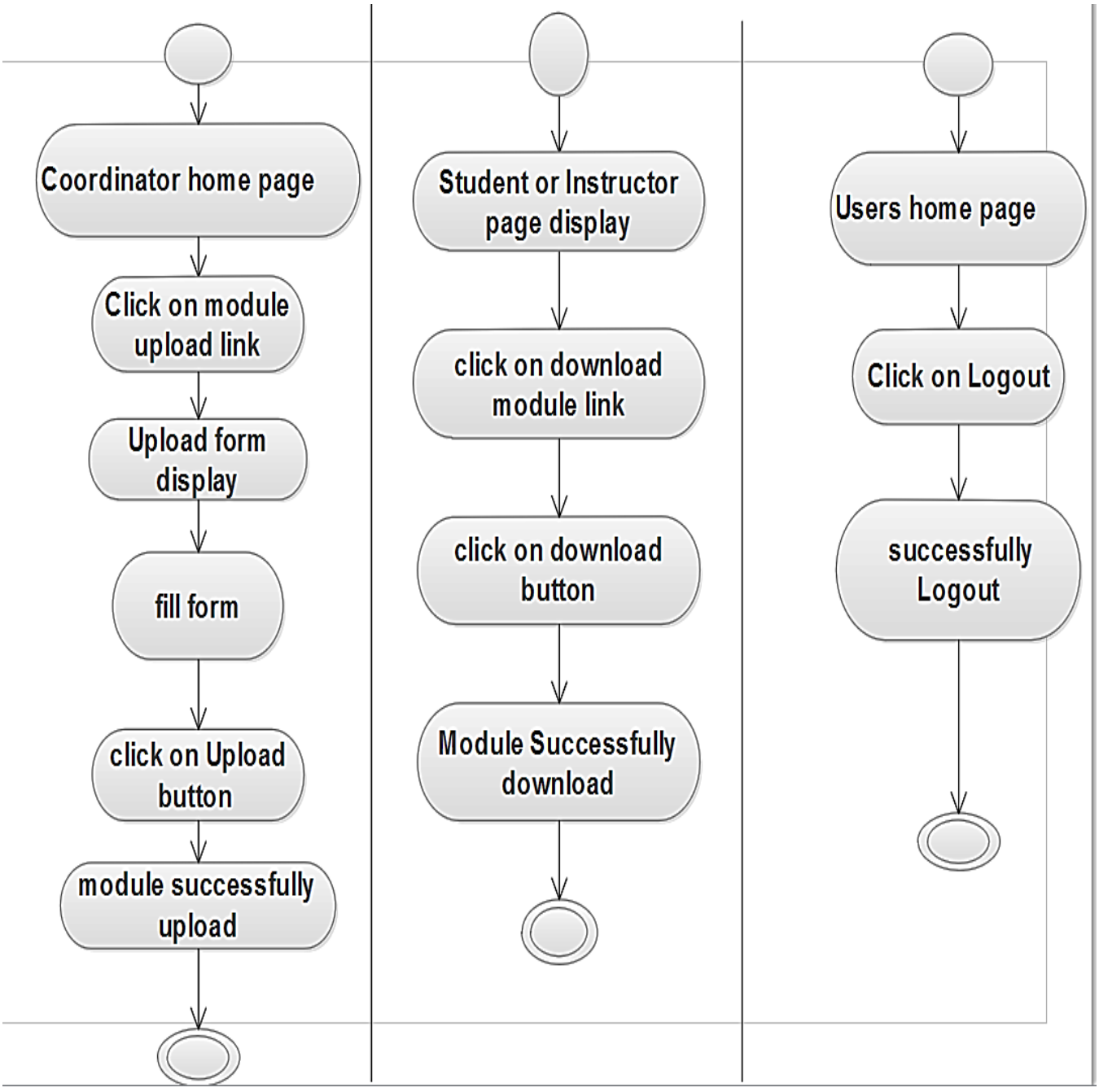

Figure2. 7 Upload and Download Module and Logout Activity Diagram

Generate report and View report Activity Diagram

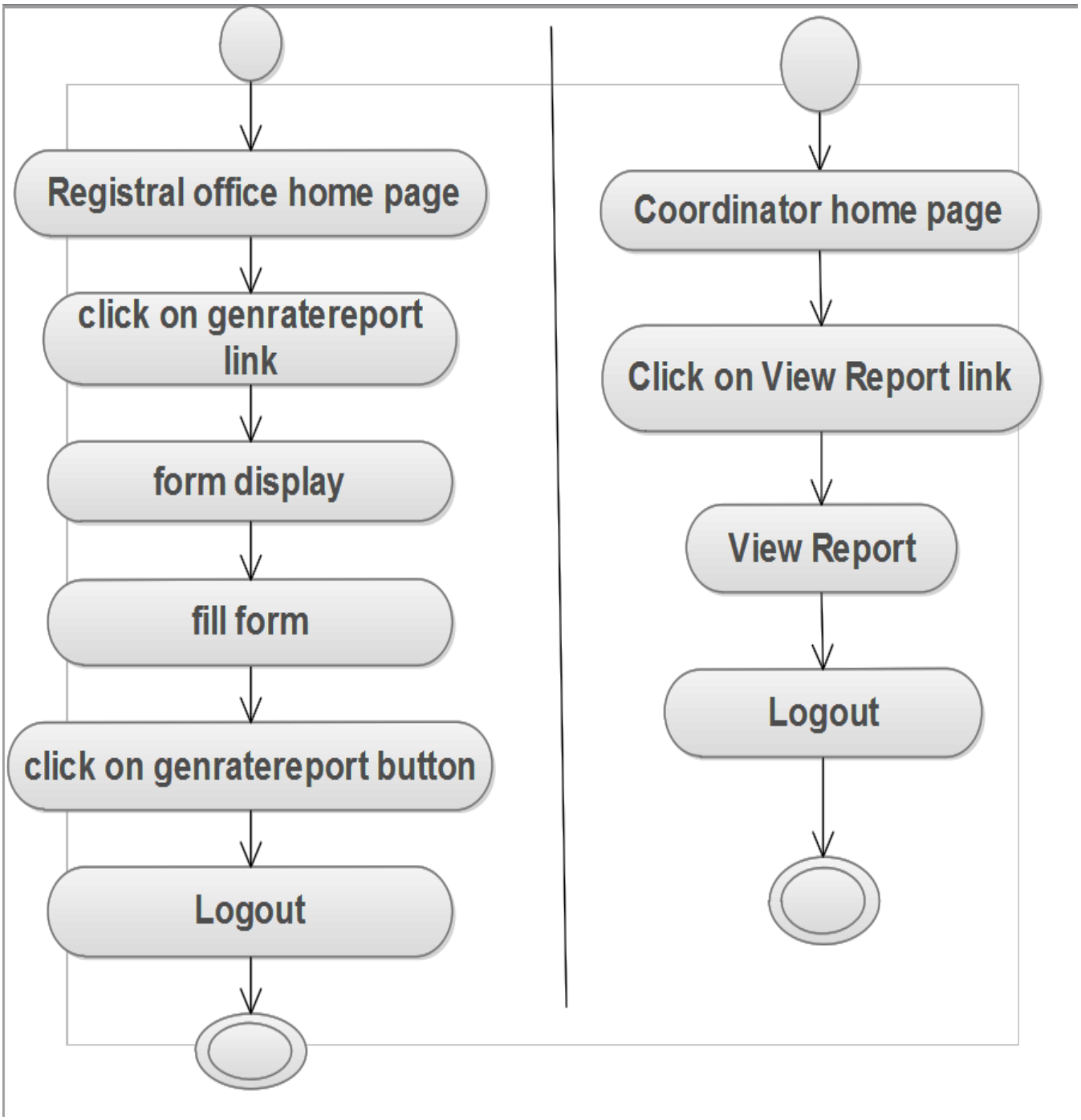

Figure2. 8 Generate report and View report Activity Diagram

Post Announcement and Give Comment activity diagram

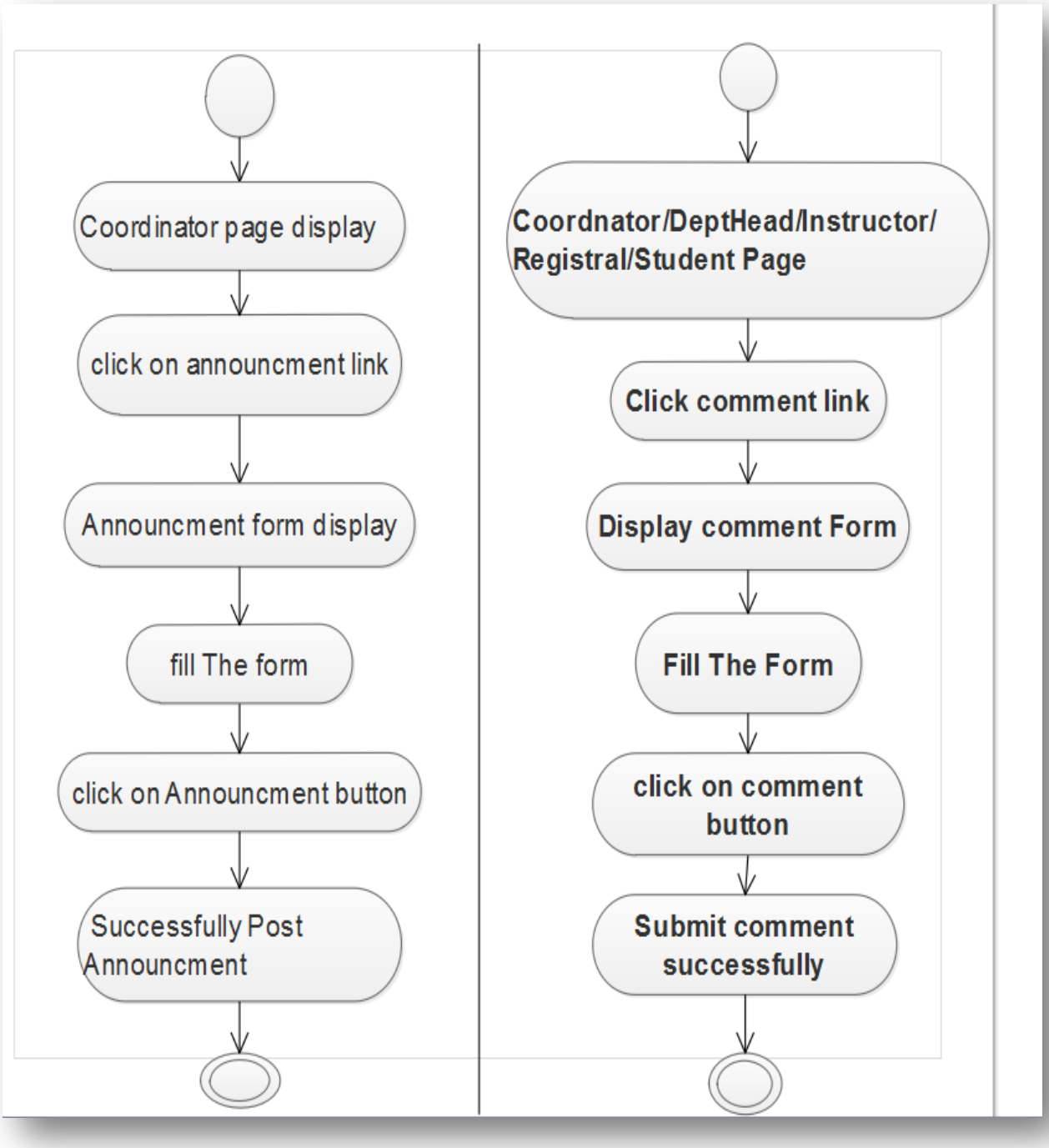

Figure2. 9 Post Announcement and Give Comment activity diagram

Submit and View result activity diagram

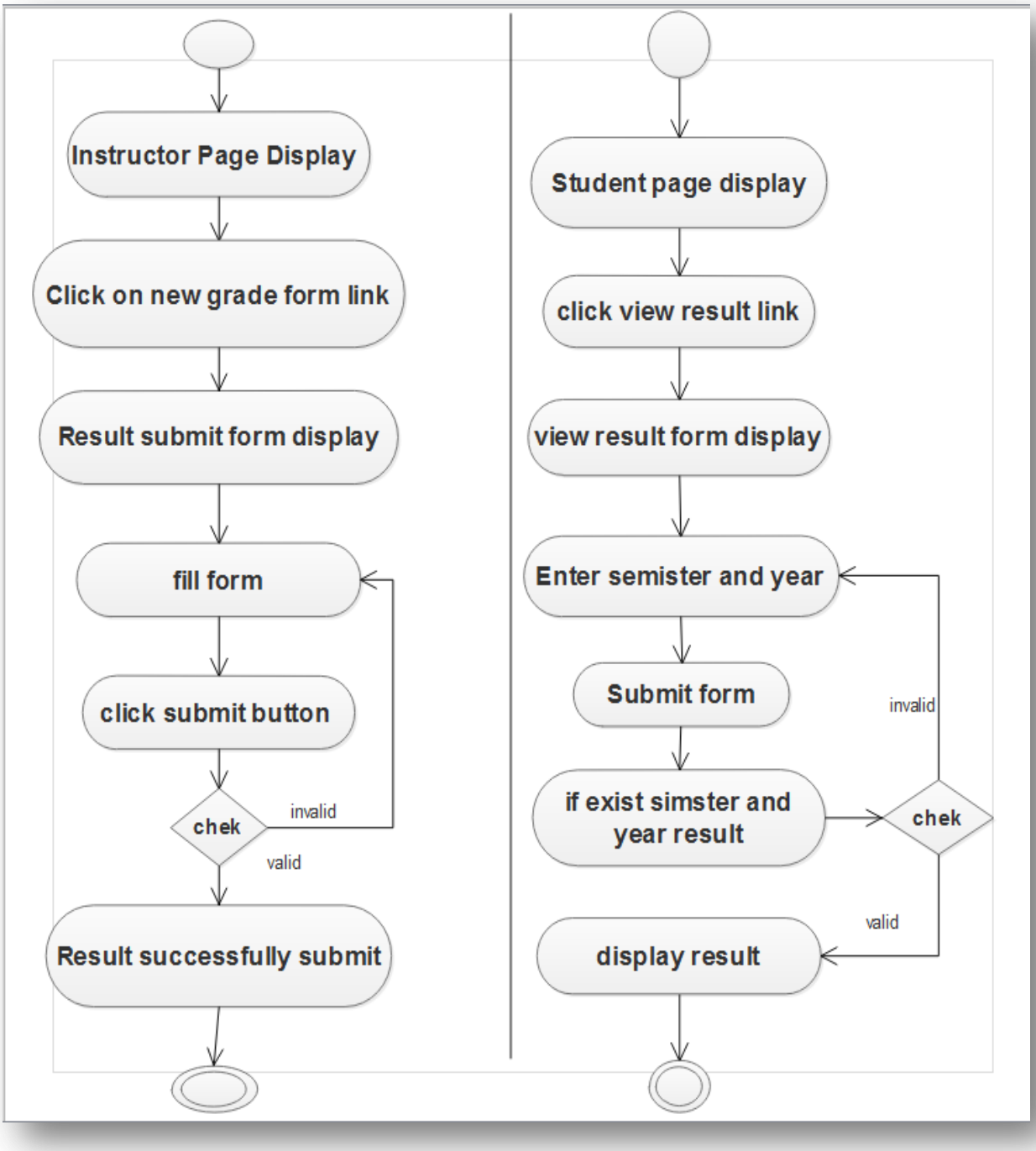

Figure2. 10 Submit and View result activity diagram

2.9. Sequence diagram model

A sequence diagram links use case with objects. It shows the interaction between participating objects in a given use case. It is helpful to identify the missing objects that are not identified in the analysis object model. From the use case and the class diagrams shown in the previous section the sequence diagrams of the system is shown as follows:

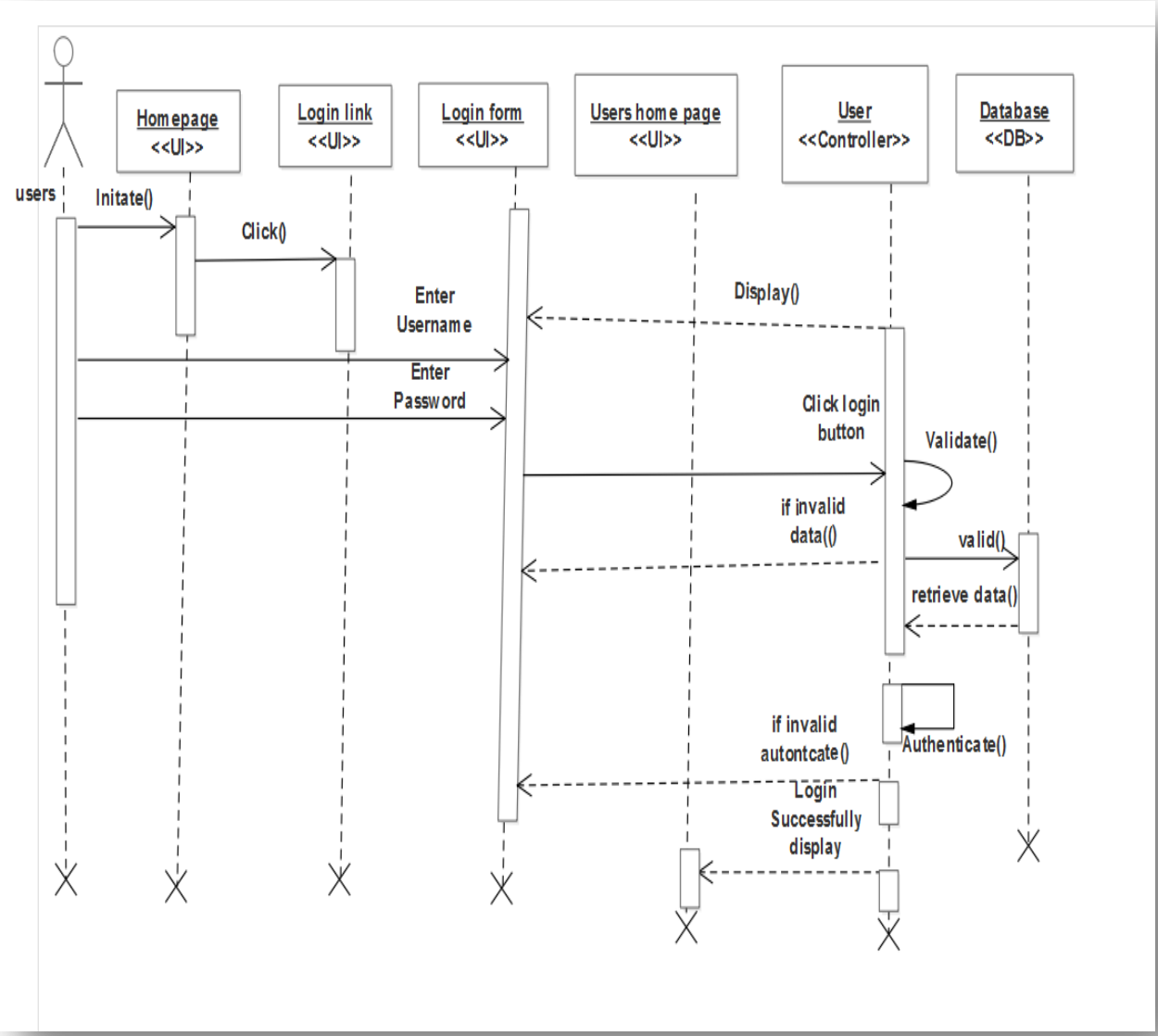

Figure2. 11 Sequence diagram for Staff Member login

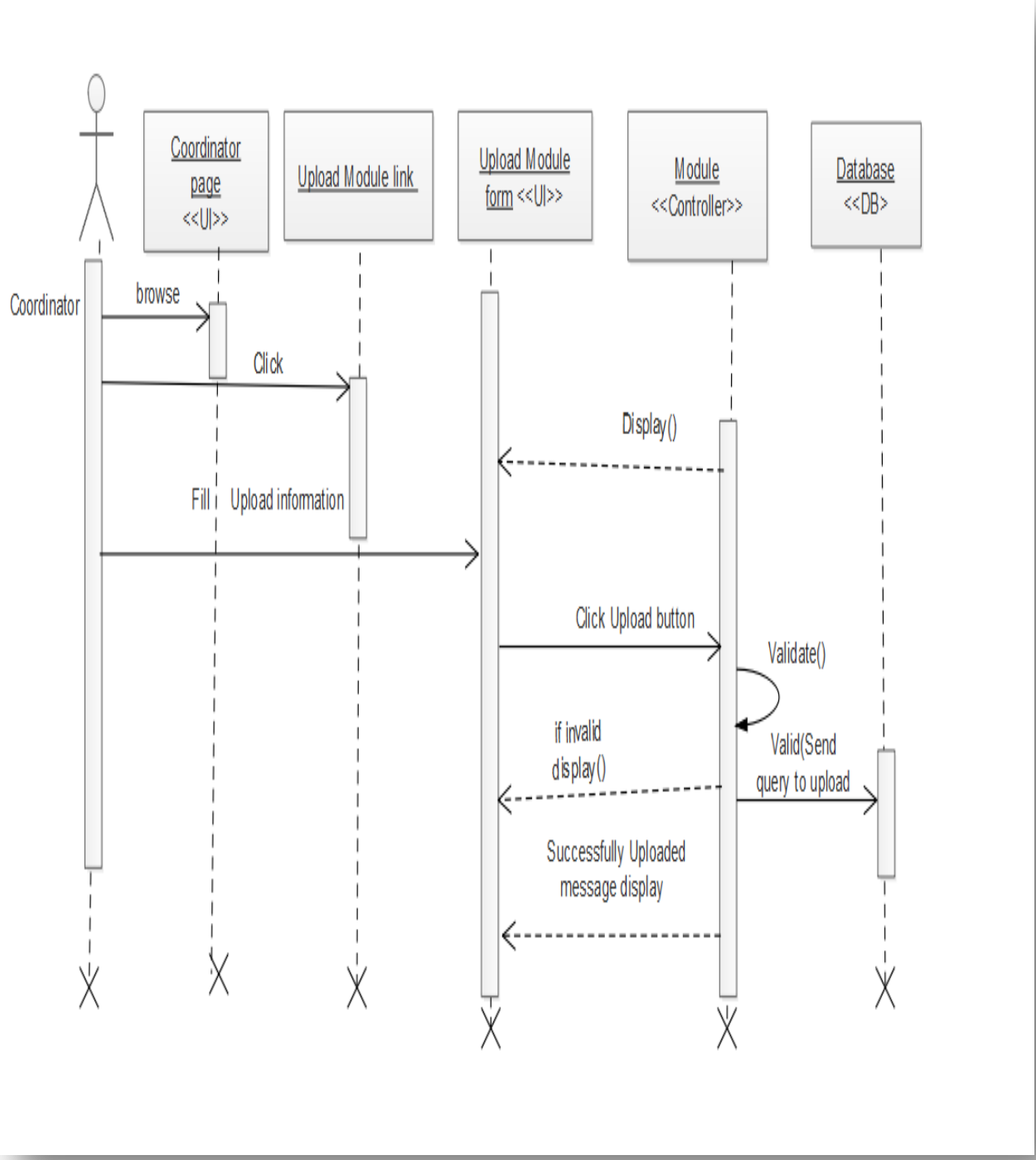

Figure2. 12 Sequence diagram for upload module

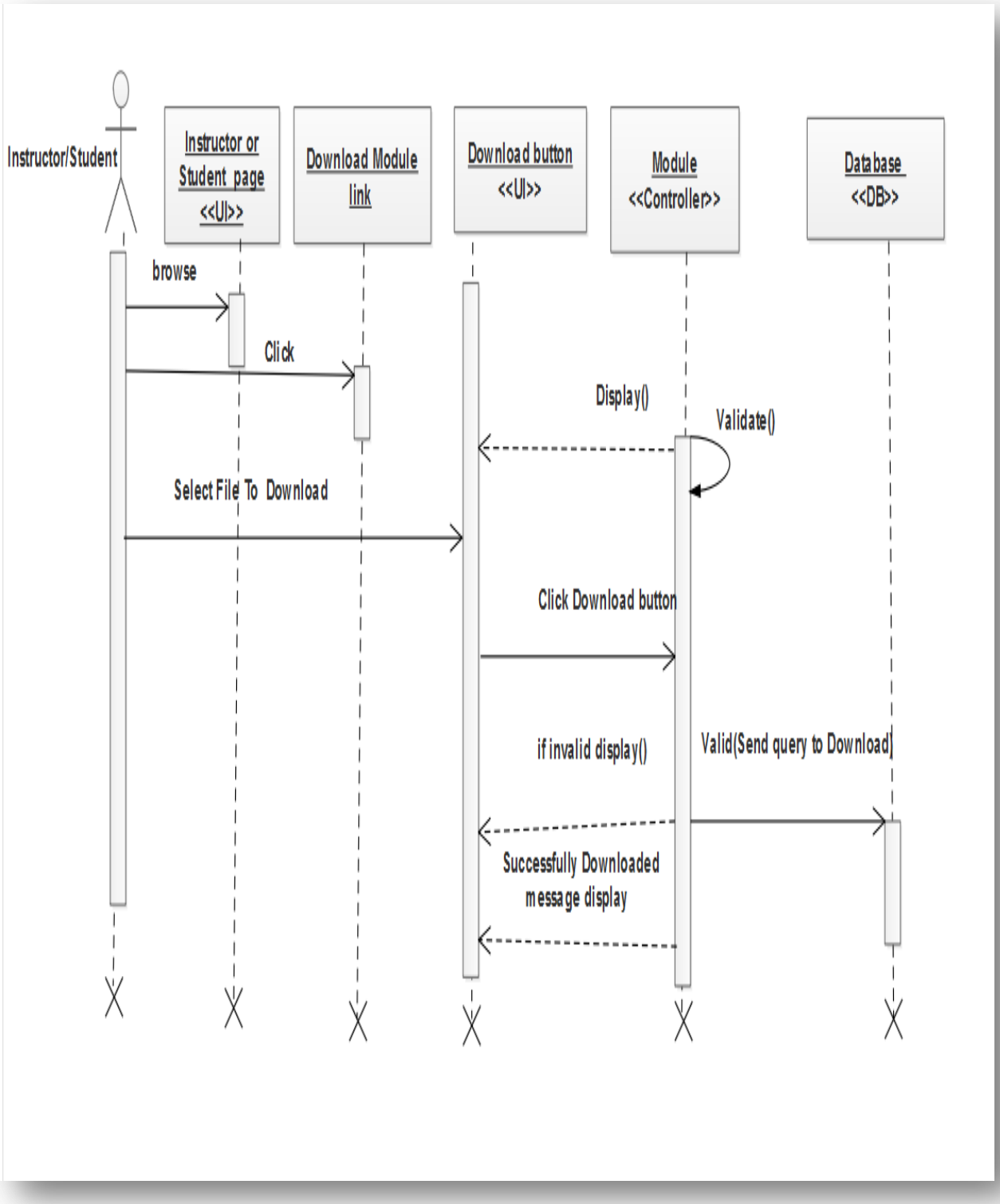

Figure2. 13 Sequence diagram for Download module

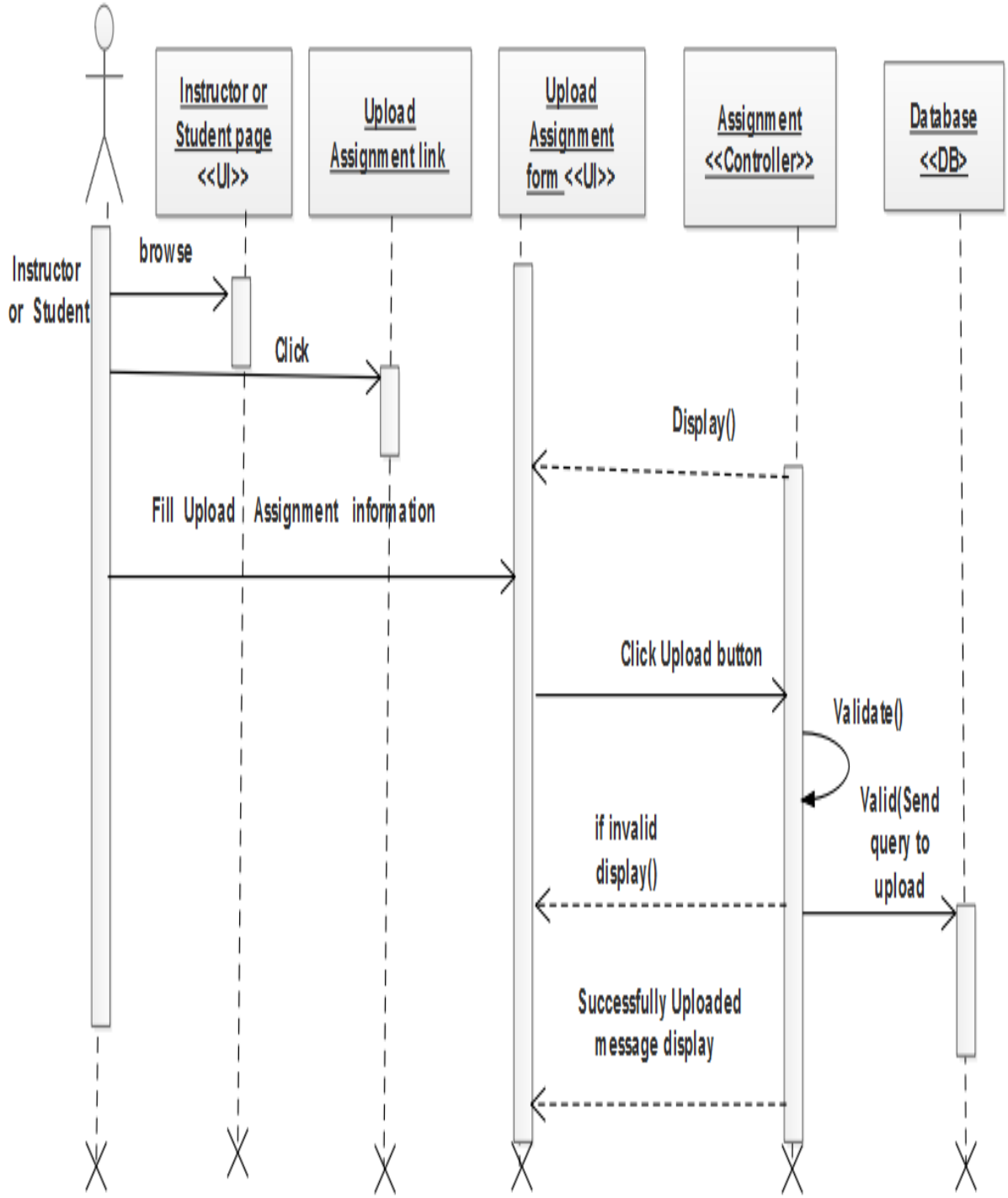

Figure2. 14 Sequence diagram for upload assignment

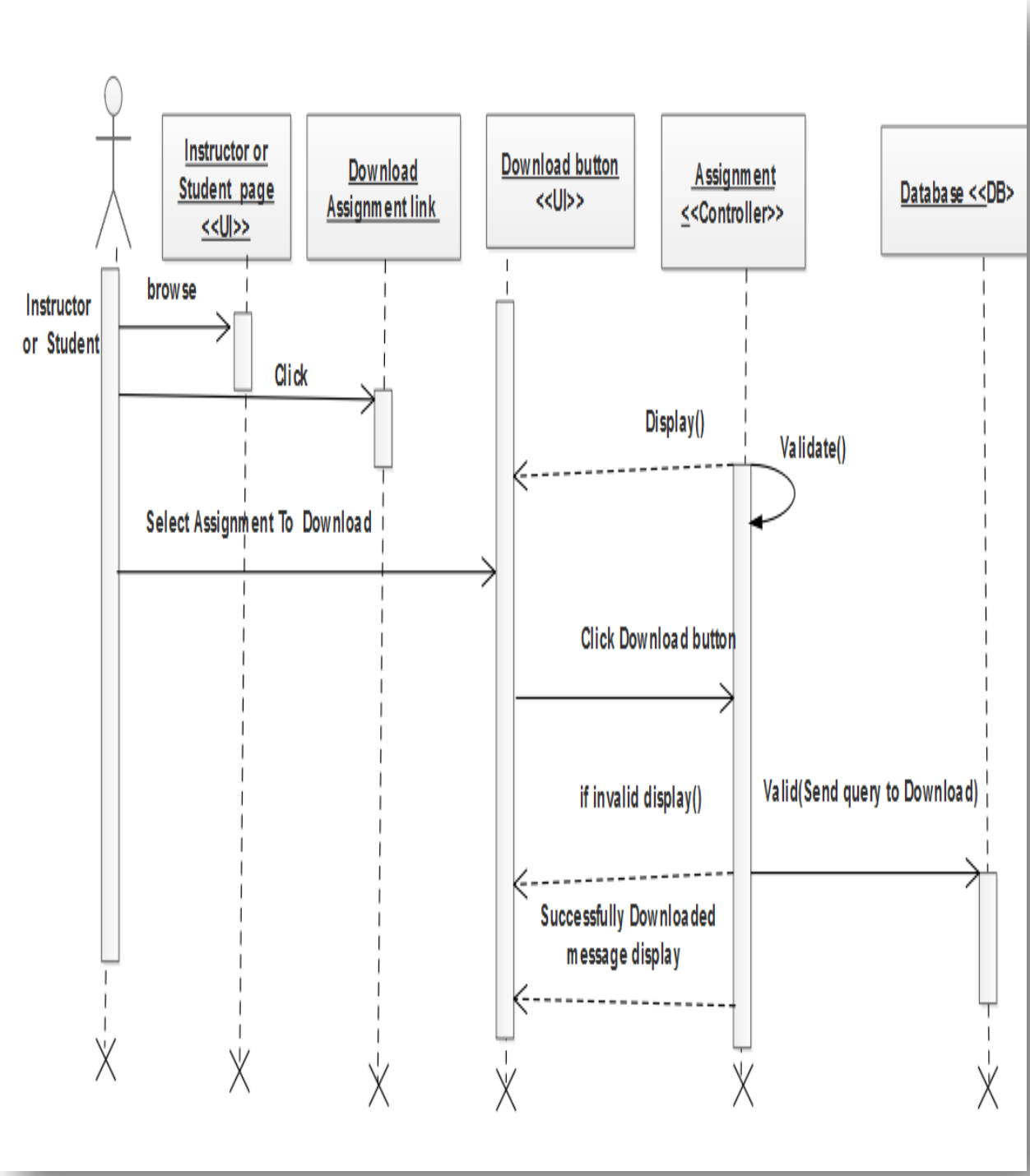

Figure2. 15 Sequence diagram for download assignment

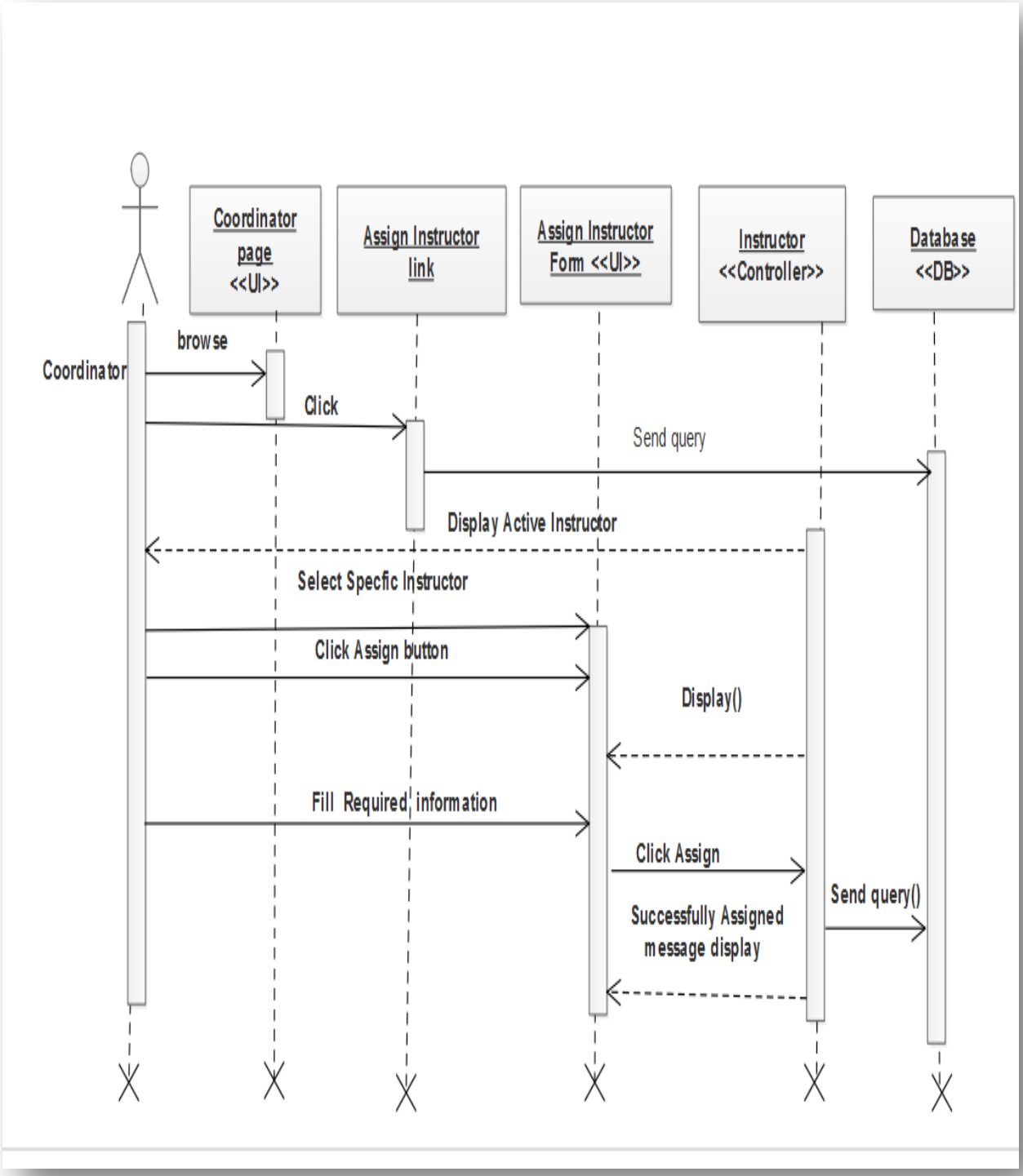

Figure2. 16 Sequence diagram for Assign Instructor

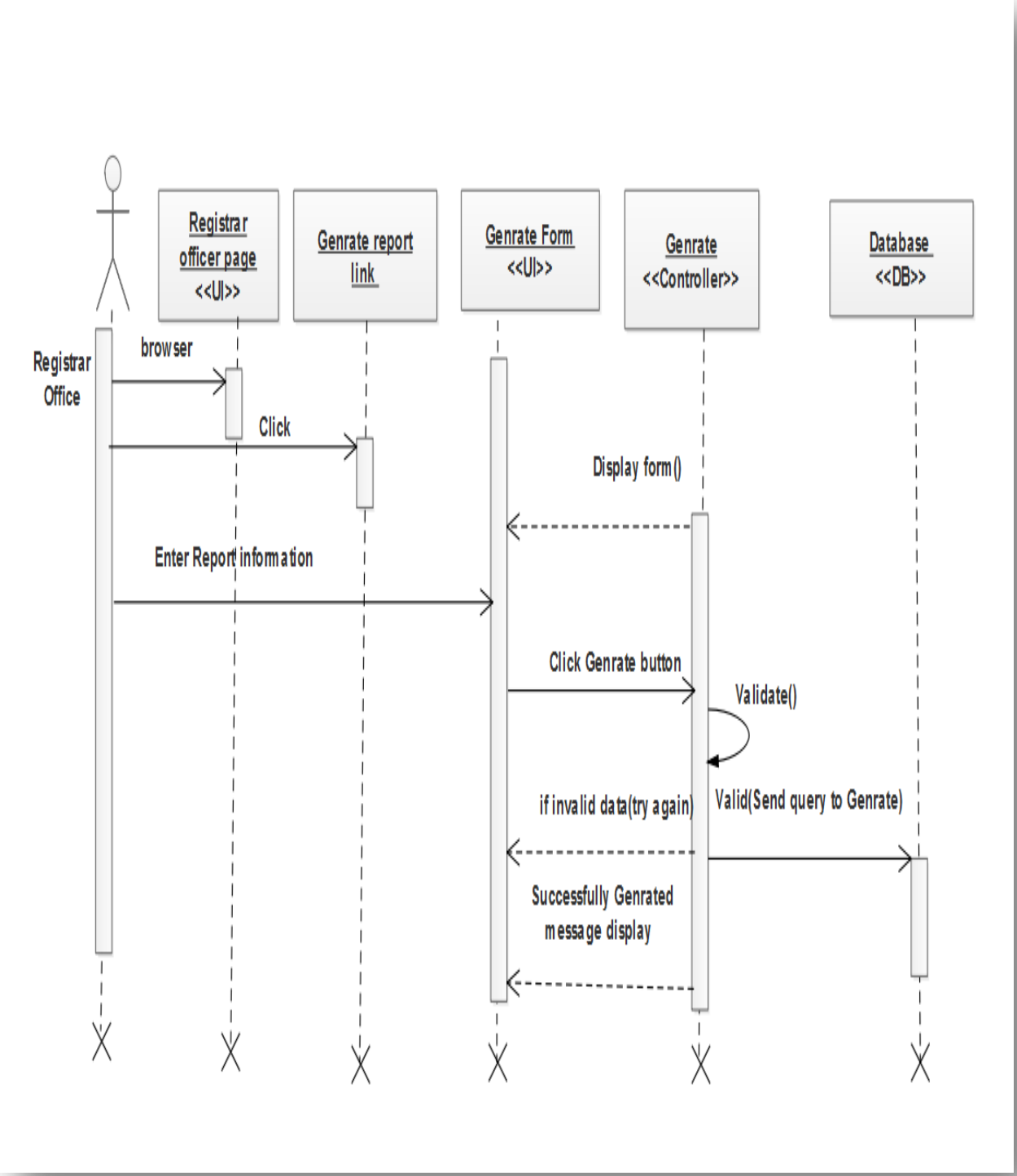

Figure2. 17 Sequence diagram for generate report

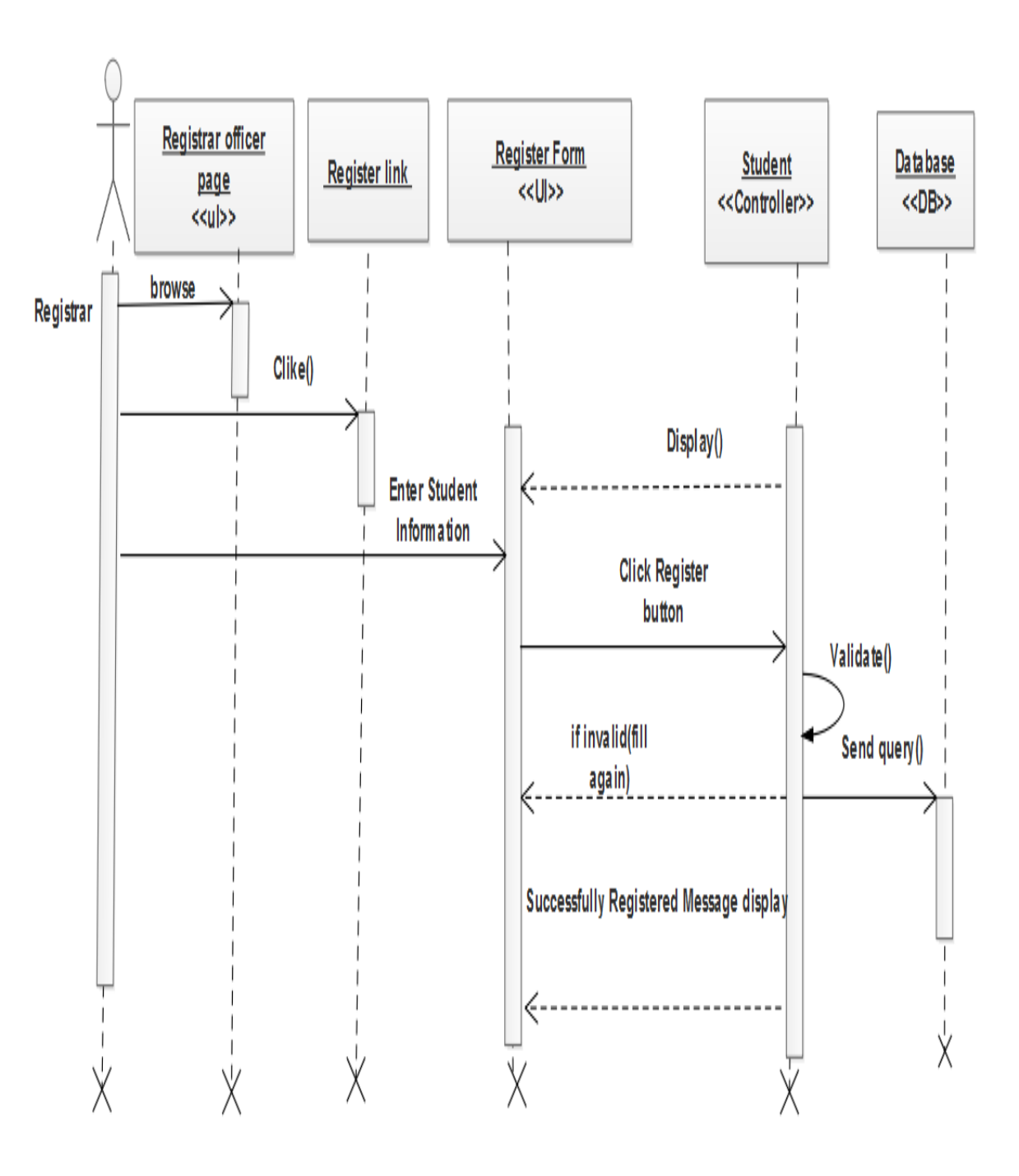

Figure2. 18 Sequence diagram for student registration

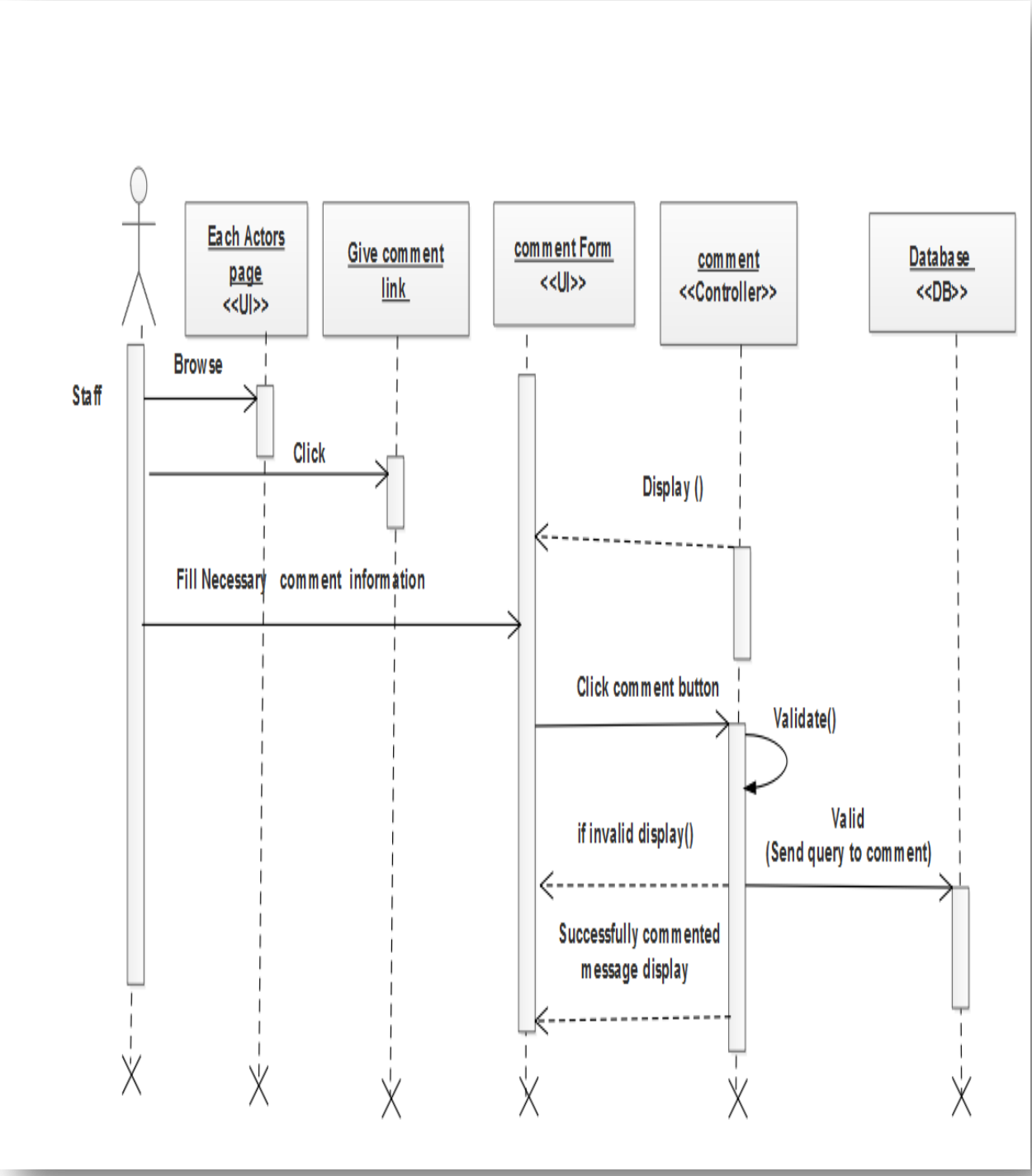

Figure2. 19 Sequence diagram for give comment

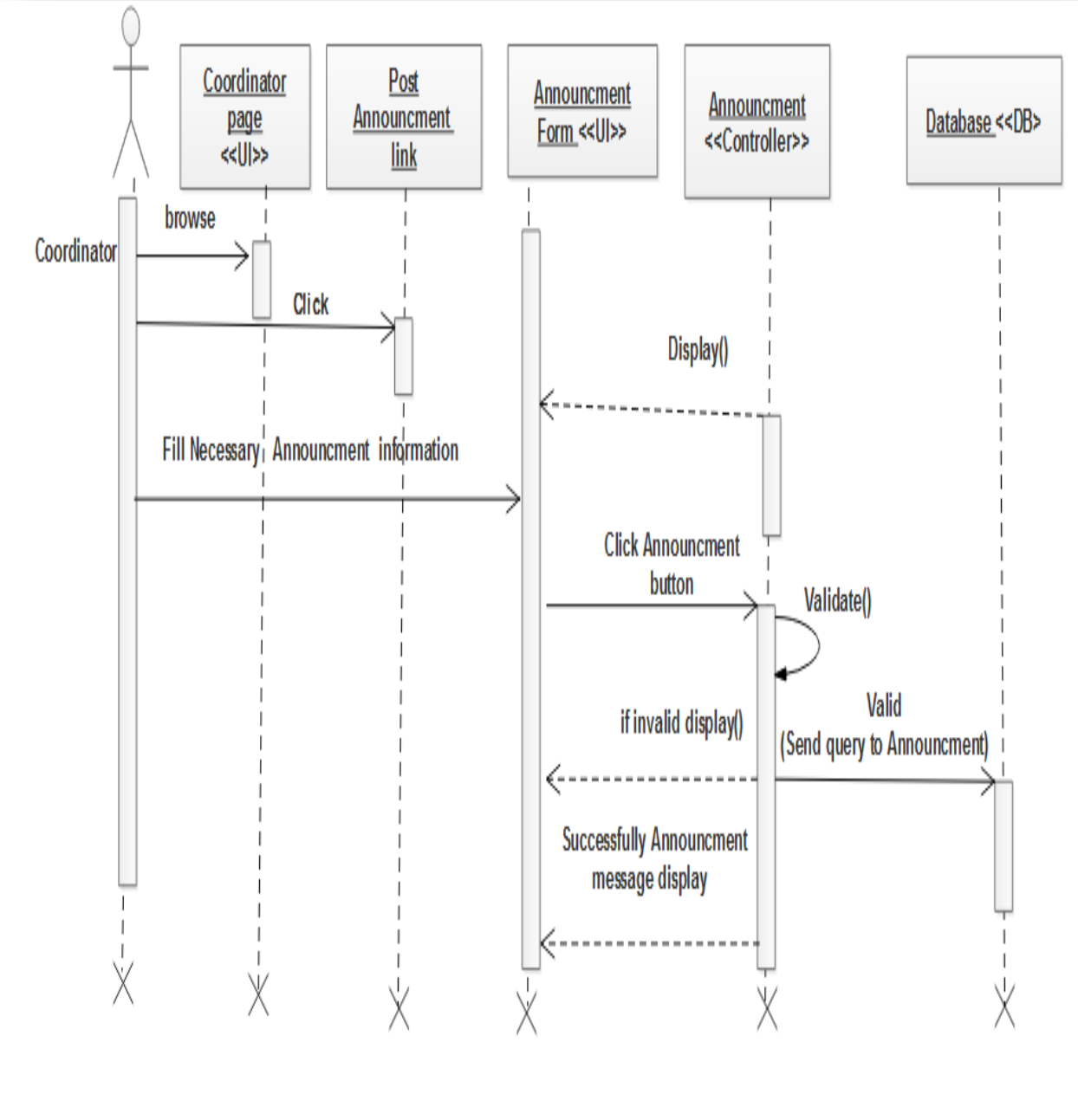

Figure2. 20 Sequence diagram for post announcement

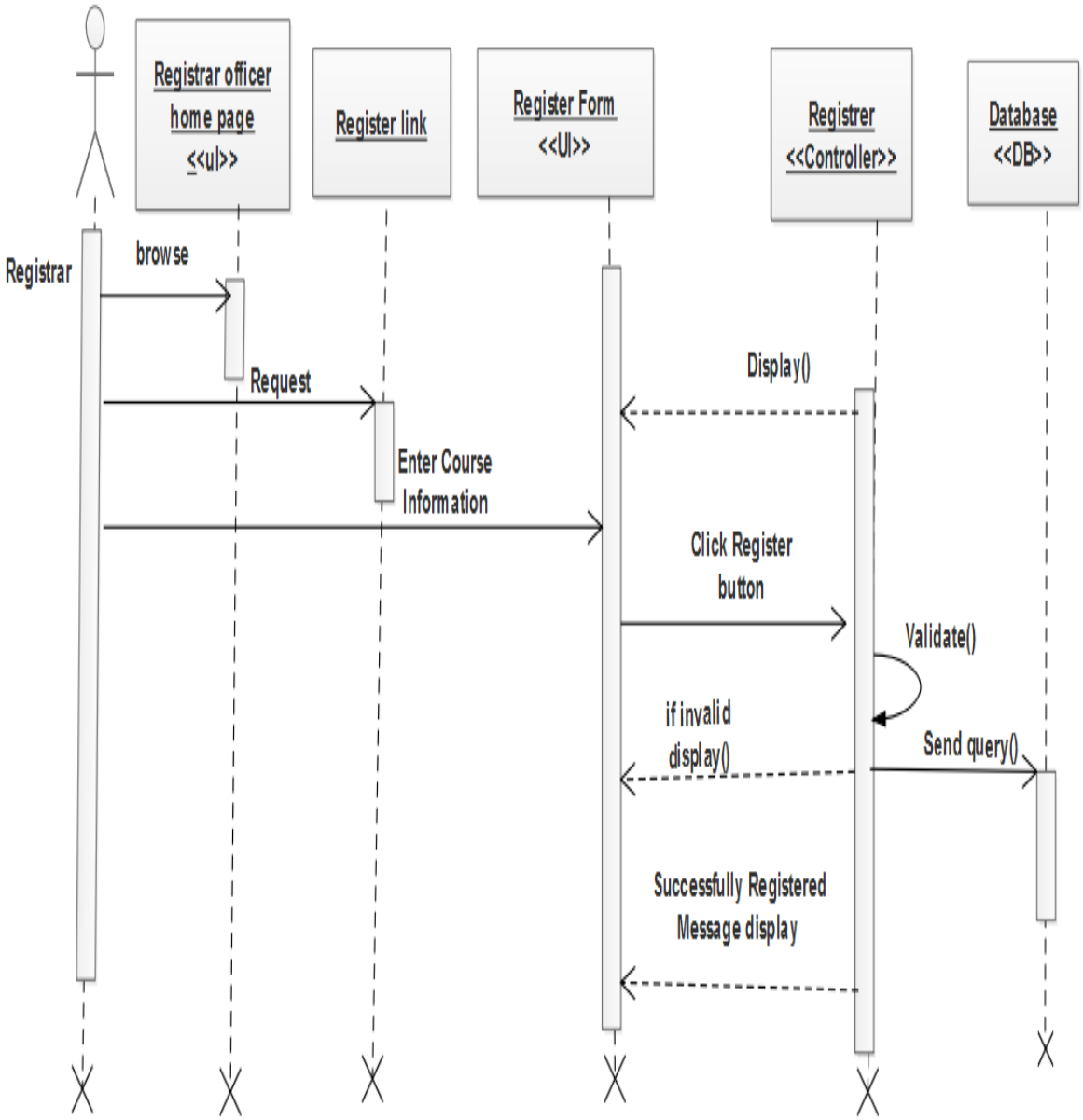

Figure2. 21 Sequence diagram for register course

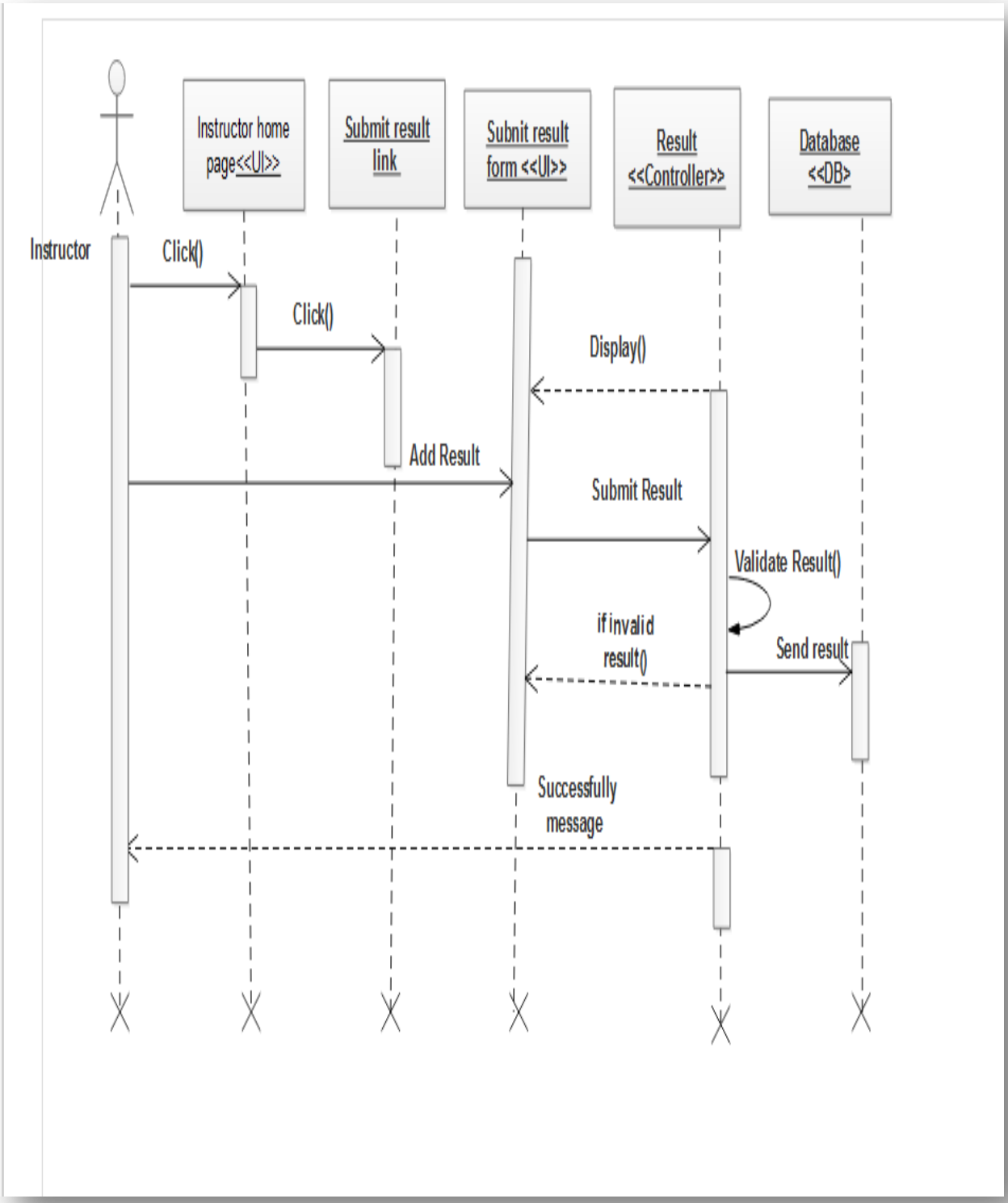

Figure2. 22 Sequence diagram for Submit result

2.10. Logic model

Algorithm/Pseudo code for some process

<<-------_____Algorithm Design___----------. >>

_____pseudo code method for login () _____

Method name: login ()
Begin
Get username;
Get password;
If (username == entered username && password == entered password)
Begin
Then login successful;
End
Else
Begin
Login failed message;
Display again login form;
End
End

_____pseudo code for method: register (); _____

Method name: register ();
Begin
Get: first name, Father's name, Grandfather Name, age, sex, Region, Contact Name
Zone, Woreda, photo, nationality;
If (valid data)
Begin
Store the information to the database.
End
Else ()

Begin

Show error message.

Then

Back to registration form to fill again

End of else

End

_____pseudo code for update () _____

Method name update ()

Begin

Get: first name, father's name, Position, Uid

search **(**first name, father's name, Position, uid**);**

If **(**found**)**

Begin

Display information;

Edit information to be changed;

Save the edited information;

End

Else ()

Begin

Error message display;

End

End

_____pseudo code for create account () _____

Method name: create account ()

Begin

Get id;
Check user id from database
If (true)
Begin
Get first Name, father's name, username, password, email, role;
(Check input validity)
If (valid input is true)
Begin
Register account to user database
Show success message
End of if
Else if
Begin
Display message to enter valid account information
End of else if
Else
Display error message and ask to enter the correct id
End of if
End

2.11. Non-functional requirement

Non-Functional requirement explains and describes the user visible aspects of the system. Constraints on the services or functions offered by the system are constraints of timing, the development process; standards, etc. are things we have to focus on developing new systems to achieve its functionality.

Non-functional requirements are requirements which specify criteria that can be used to judge the operation of a system. This is contrasted with functional requirements that specify behaviour or functions. The new online distance education management system for admass university of

College of Teaching education has the following Non-Functional Requirements to achieve its functionality:-

Usability

Usability mean the system is user-friendly which is easy to learn, use, input data interpret outputs of system or component and operate. The User interface for this system will be simple and clear. The distance education services are easy to gain and use i.e. the service doesn't require expert.
To say system is usable or user friendly we need to develop:-

- Well-formed graphical user interfaces
- Well-structured user manuals
- Check for validation and display error messages
- Help facilities for users

Performance*:*-Performance is the ability of system to response quickly and optimal workload. Is how fast (speed) of operation of a system. Which is mean:-
How much the system can accomplish within a specified amount of time. How quickly the system reacts to a user input. The system will give response to the users in duration of 16 minute without delaying much time.

Availability:-The system available for service when requested by end-users. This system is available in everywhere (where internet/intranet service reach) and at all time for those who have access to use the system.

Security:-Security is how we protect the system from unauthorized access. Is identification of the system user which part is allowed to access and who has permeation to access .So it needs to have:-
We need to have very strong user name and password in order to secure the system.
It is designed to be very secure by providing a login feature which authenticates the user by means of a user name and password.
Which user will be able to login to his/her respective pages and use the system?

Reliability:-The system is effective and consistent in that integrity of information is maintained and supplied to the system. Is the ability of a system to perform its required functions under stated conditions for a specific period of time?

Portability:-The system is machine and software system independent. It can run to different target platforms. It not affected by type or required hardware or software

Documentation content:-The system contains the required documents needed to implement the project.

Accuracy: The level of accuracy in the proposed system will be better due to reduction of error. The system should give correct output for the users when they want to get services.

Availability: the system will be available at any time for users regarding to the presence of Internet/Intranet.

2.12. System Requirement

2.12.1. Hardware requirements

The following hardware's are necessary to deploy our system

- Any computer (personal computer and desktop)
- CPU and 2GB RAM.
- Memory, Flash, DVD, CD.
- Printer
- Digital camera

2.12.2. Software requirements

Software to be used is:

- Microsoft word 2010: used for documentation.
- E draw max and Microsoft Visio 2007: This is used to draw different UML (unified modelling language) that are necessary to structure of the system.
- Wampserver 2.0: using for database connectivity.
- Php, html, JavaScript to develop user interface

CHAPTER THREE

3. SYSTEM DESIGN

3.1. **Introduction**

System design is the transformation of the analysis model into a system design model. System design is the first part to get into the solution domain in a software development. This chapter provides the design part of the project is discussed. The system design is the building block of the system. It also transforms the analysis model into system design model. The result of the system design is the model that includes the clear description of software Architecture, deployment diagram, design class model, component diagram and system persistent diagram. Generally the purpose of this design phases is to determine how to build the system and the information needed to device the actual implementation of the project.

3.2. Architectural Design

In this project the team uses a three-tier architecture which has three layers. These three layers are the Application or Presentation layer, the business layer and the data access layer. Application or presentation layer is the form which provides the user interface to either programmer or end user. The business layer is the class which the team uses to write the function which works as a mediator to transfer data from application layer or presentation layer to data layer. This layer also has a property layer which is a class where variables are declared corresponding to the fields of the database which can be required for the application and make the properties so that the team can get or set the data using these properties into the variables. The third tire is the data access layer which is also a class to get or set data to the database queries back and forth. This layer only interacts with the database. The database queries or stored procedures will be written here to access the data from the database or to perform any operation to the database.

3.2.1. Component model

Components are generally units of computation or operation in the system. A component has a name, which is generally chosen to represent the role of the component or the functions online distance Education management system for Admass University of Collage in Bahir dar Branch. The different components of a system are likely to interact while the system is in operation to provide the services expected of the system. After all, components exist to provide parts of the services and features of the system, and these must be combined to deliver the overall system functionality.

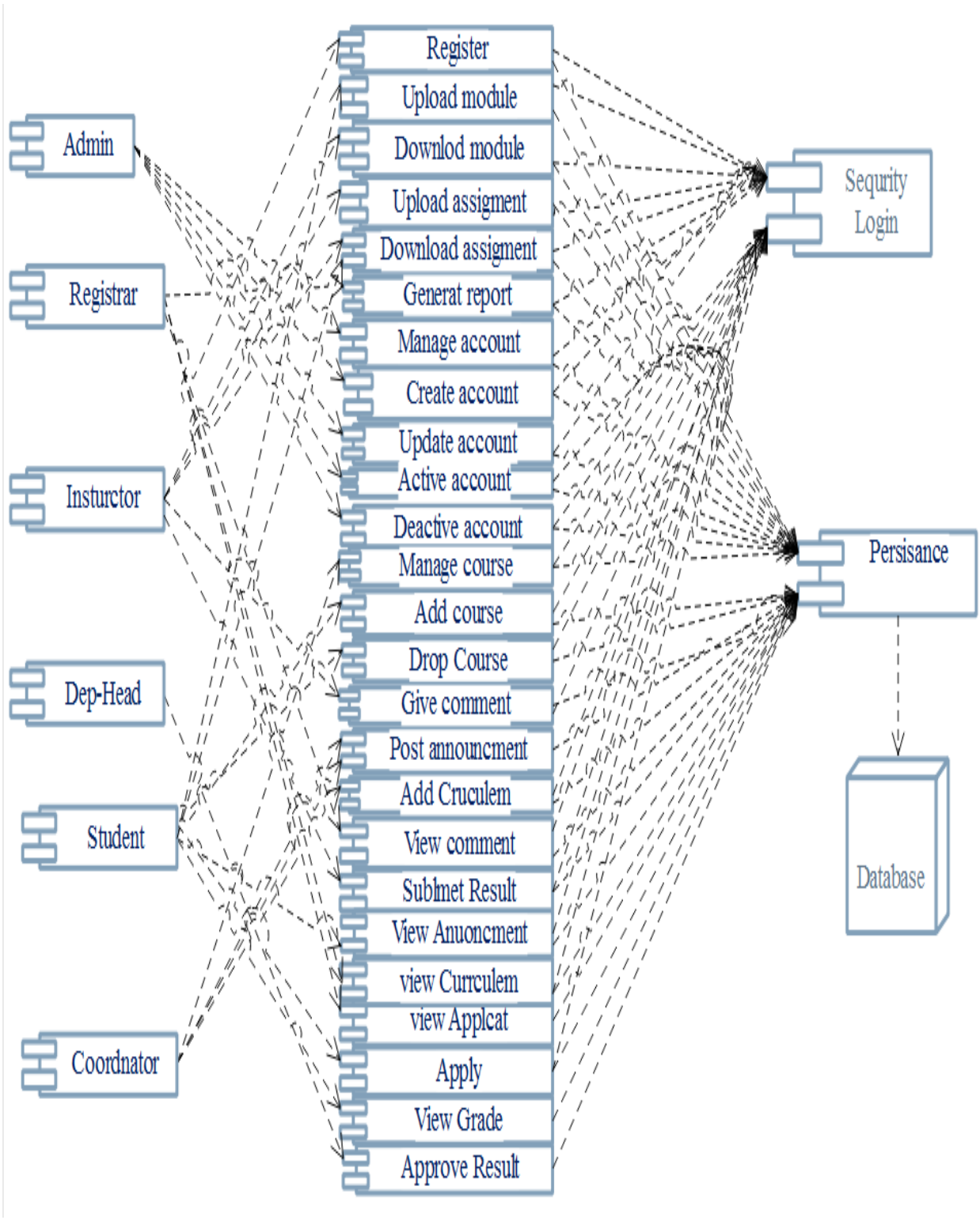

Figure3. 1 component model diagram

3.2.2. Deployment Diagram

Deployment diagram shows the physical relationship between software and hardware components in the delivered system and also it show the hardware in the organization will be connected and which component of the software will be deployed in hardware.

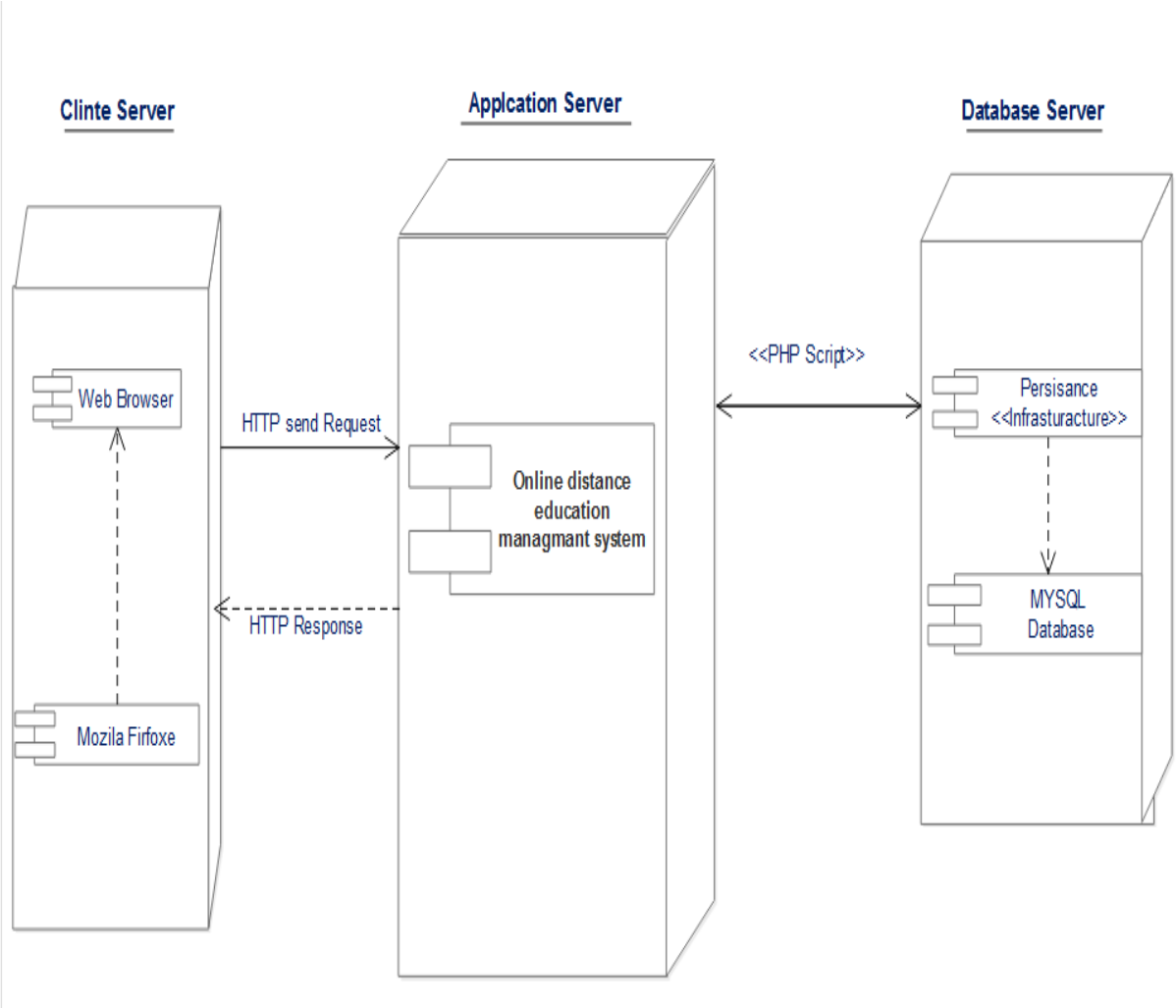

Figure3. 2 Deployment Diagram

3.3. Class Design model

Class is a description of a set of objects that share the same attributes, operations, relationships, and semantics. Graphically, a class diagram is drawn as a rectangle with three compartments holding the class name, attributes, and operation.

Class Names: Every class must have a name that distinguishes it from other classes. A name is a textual string. That name alone is known as a simple name; a qualified name is the class name prefixed by the name of the package in which that class lives.

Attributes: An attribute is a named property of a class that describes a range of values that instances of the property may hold. A class may have any number of attributes or no attributes at all. An attribute represents some property of the thing you are modelling that is shared by all objects of that class.

Operations: An operation is the implementation of a service that can be requested from any object of the class to affect behaviour. In other words, an operation is an abstraction of something you can do to an object that is shared by all objects of that class. A class may have any number of operations or no operations at all.

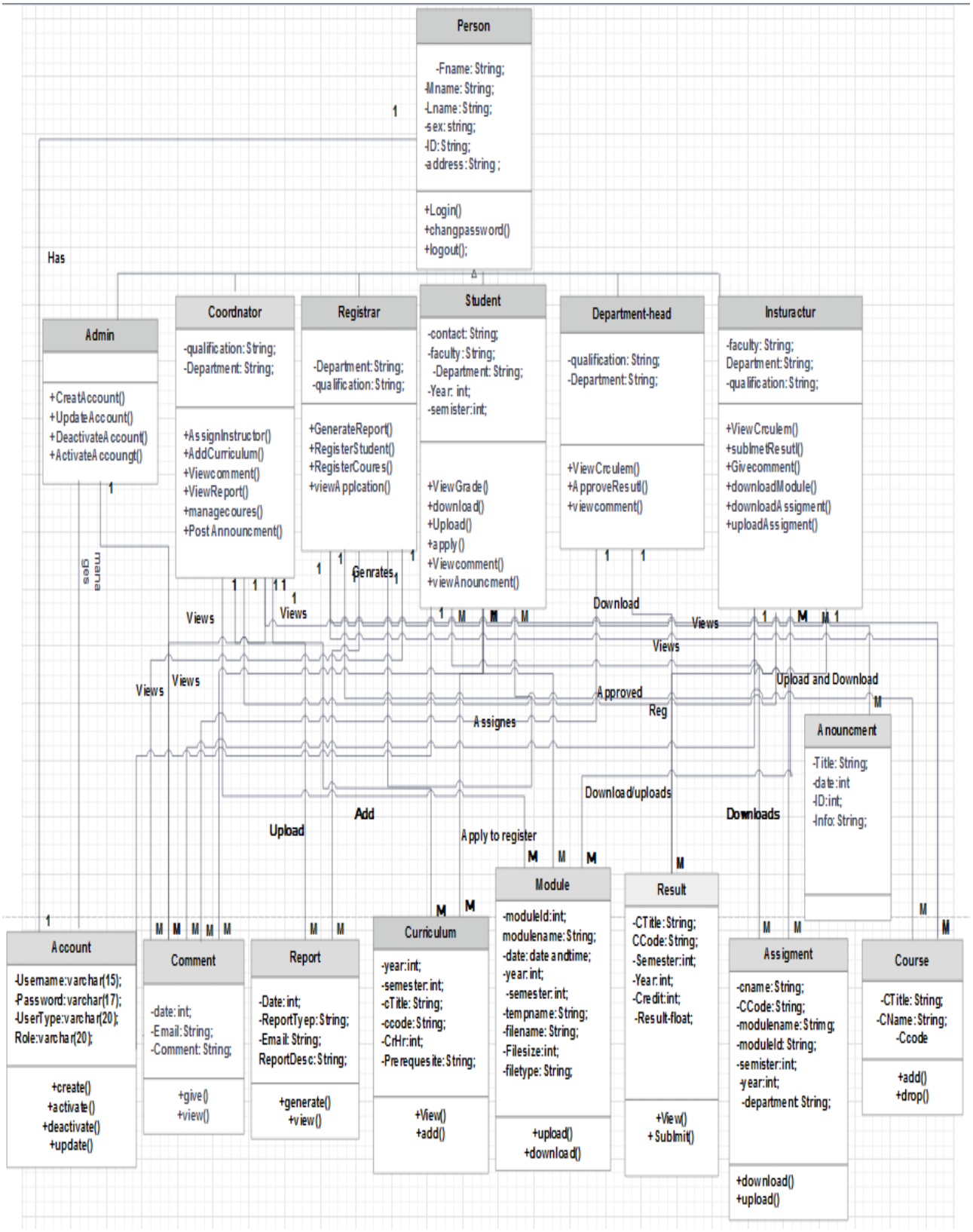

Figure3. 3 Class diagram

3.4. Persistent model

Persistent data management deals with how the system is going to handle the actual data need to be stored on the database of the system. The purpose of persistence modelling is which objects in the system design are required to be stored persistently. Clearly, in a database driven application like this one, almost all system interactions have deal with persistent data. In order to store information persistently we map objects into tables and the attributes of the object into fields to the specific table based on the objects found on the system.

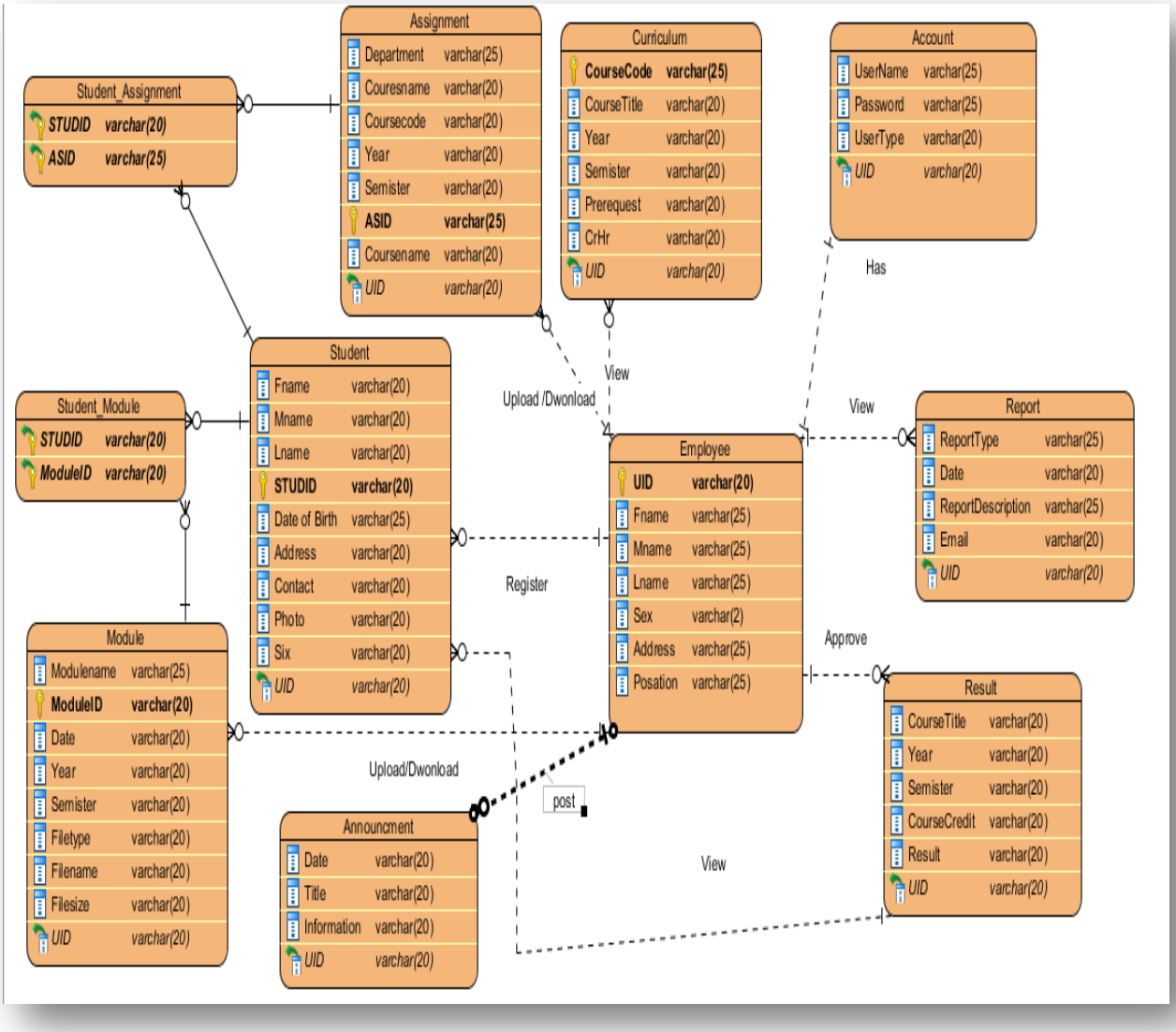

Figure3. 4 Persistent model

3.5. User Interface Design

User Interface (UI) Design focuses on anticipating what users might need to do and ensuring that the interface has elements that are easy to access, understand, and use to facilitate that Automation of online distance Education management system for Admass University of Collage in Bahir Dar Branch. The goal of user interface design is to make the user's interaction as simple and efficient as possible, in terms of accomplishing user goals

Home page User interface of the system (UI-1)

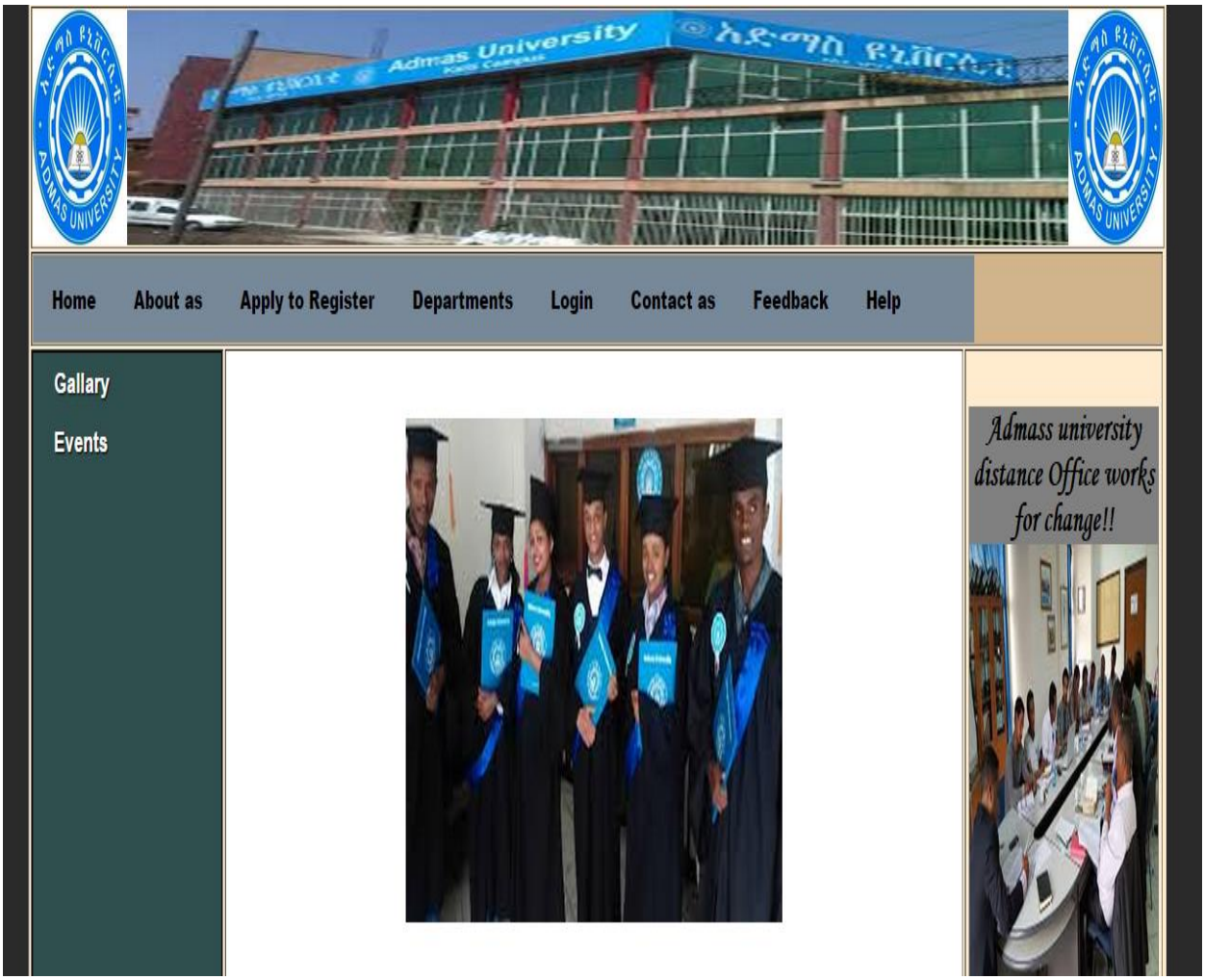

Figure3. 5 Home Page User Interface

Login page Interface of the system (UI-2)

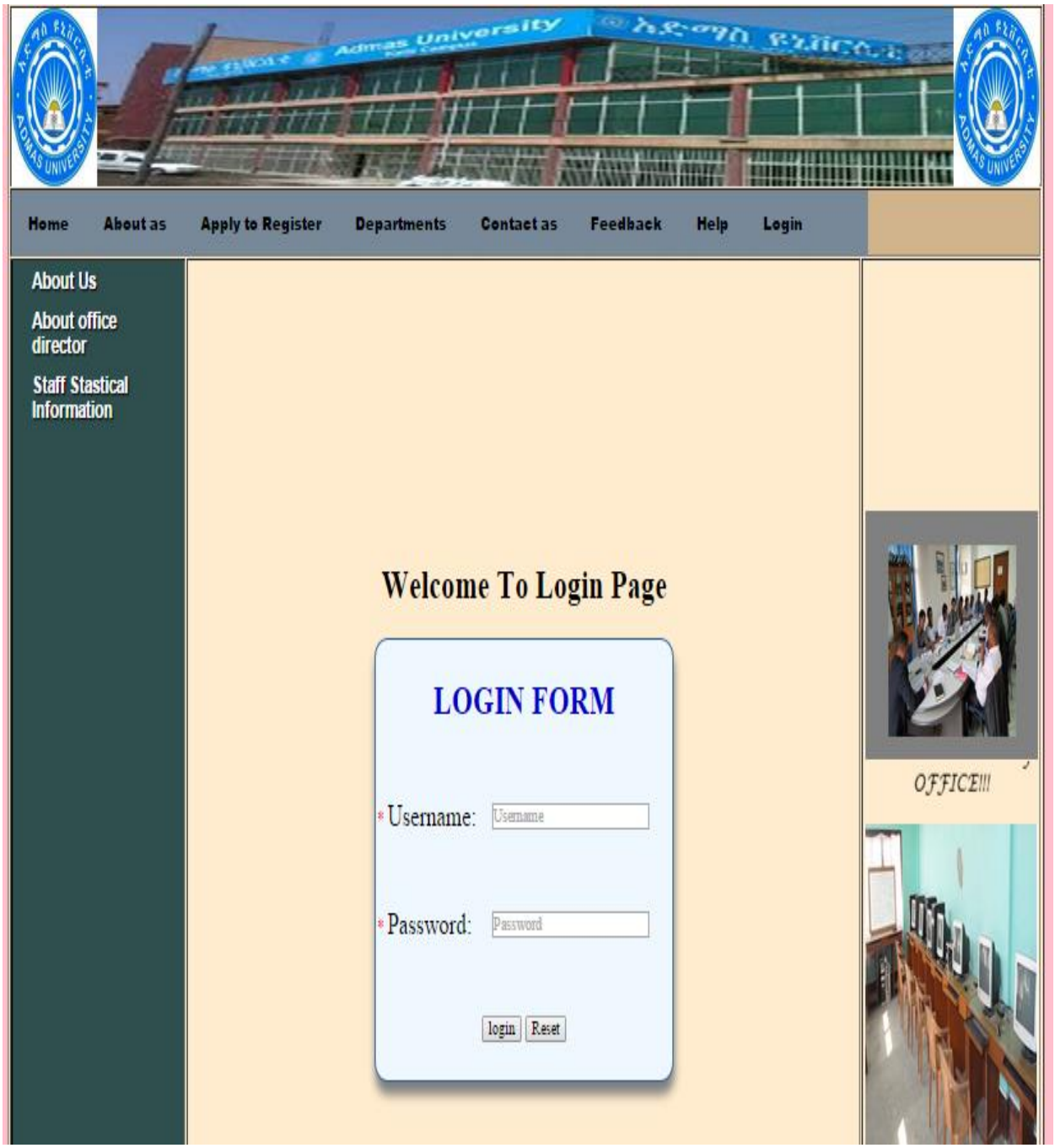

Figure3. 6 login User Interface

Apply to Register User Interface of the System (UI-3)

Figure3. 7 Apply to Register User Interface of the System

CHAPTER FOUR

4. CONCLUSION AND RECOMMENDATION

4.1. Conclusion

This project which has two phases; the first phase concerned with the analysis phase of the life cycle, the design phase and the next phase is about implementation. As the end of the first phase,

We need to review that we have covered in accordance with what we have planned at the beginning. We began our work by identifying the significance of automated system for the store and the overall techniques to be used in the development process. This involved defining the system development methodology, identifying process. This involved defining the system development methodology, identifying resource and cost requirements, and setting the deliverable and scheduled for the project.

The analysis helps the team to well understand the major functional areas and processes of the system. Through this method we evaluate the existing system weakness and strength. After that, we performed requirements elicitation to discover user and system requirements. This phase consisted of drawing the functional as well as non-functional requirements of the system. Then we have undertaken a major phase in system development process: object oriented Analysis. Here, we tried to model the new system we proposed using UML diagrams: Use case, sequence, and activity and class diagrams Also, we designed the new system user interface prototype.

4.2. Recommendation

The system that we have tried to Online is not the whole system of the distance education. Because of time limitation and budget we should not develop all parts of the system, but we tried to automate some sub systems and functionalities.

The following functionalities should not be automated because of the limitations that we have discussed above.

- ✓ Providing tutorial online
- ✓ Online examination
- ✓ Online video learning
- ✓ Online payment

Therefore, others are interested individuals to develop on distance education can get some initial idea about the system and no need of more data gathering process the only need will be improving the system**.**

5. REFERENCE

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6. APPENDIX

Interview Question

1. When was your organization started?
2. What type of service your organizations give?
3. What type of works is performed in your organization?
4. How many employees are there in your organization?
5. What type of criteria is needed to register the students?
6. In what way the students are view there result?
7. In what type way of the Student get the module?
8. How to manage the employee?
9. How to protect your students file?
10. How many departments are found in your organization?
11. What is your organization rule?
12. Are you Generalize all activity that found in your organization that miss in our understanding?

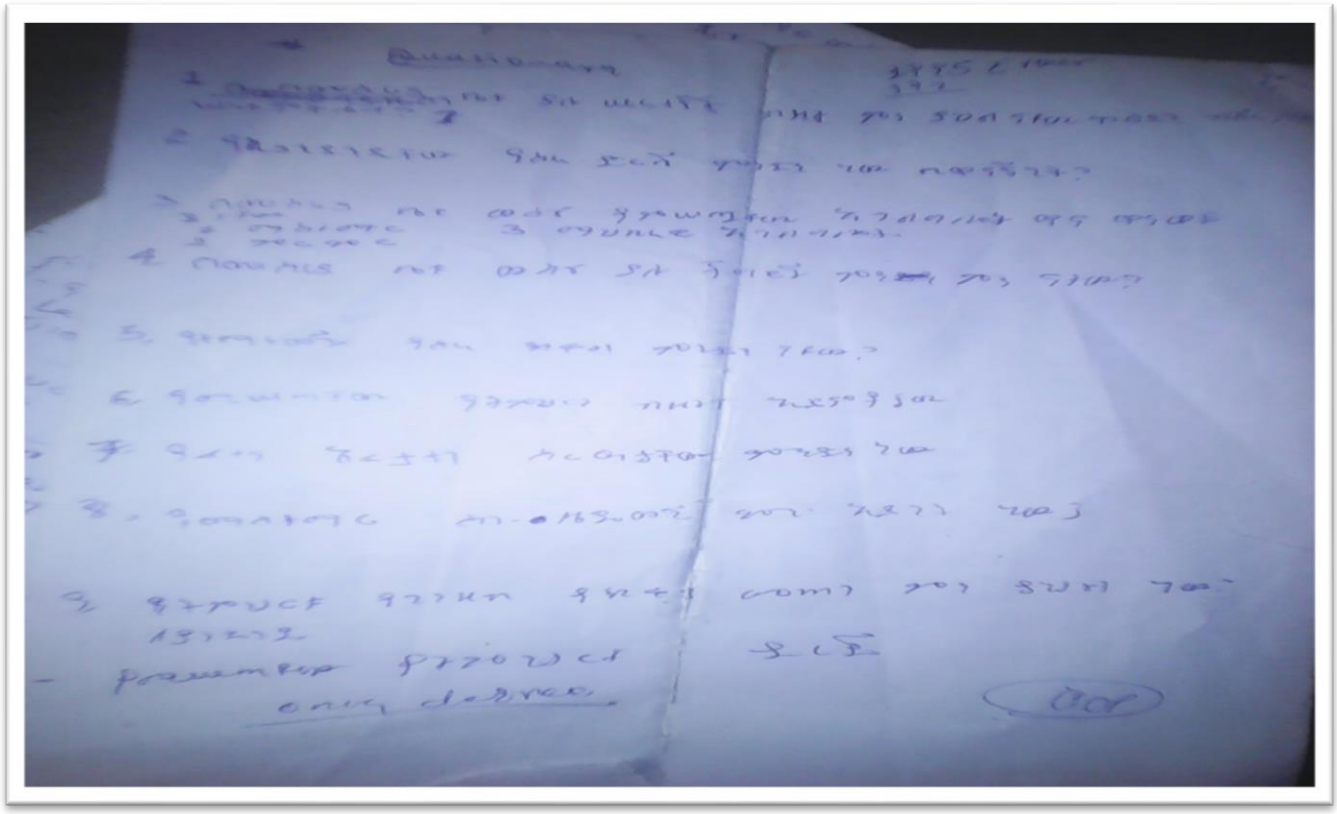
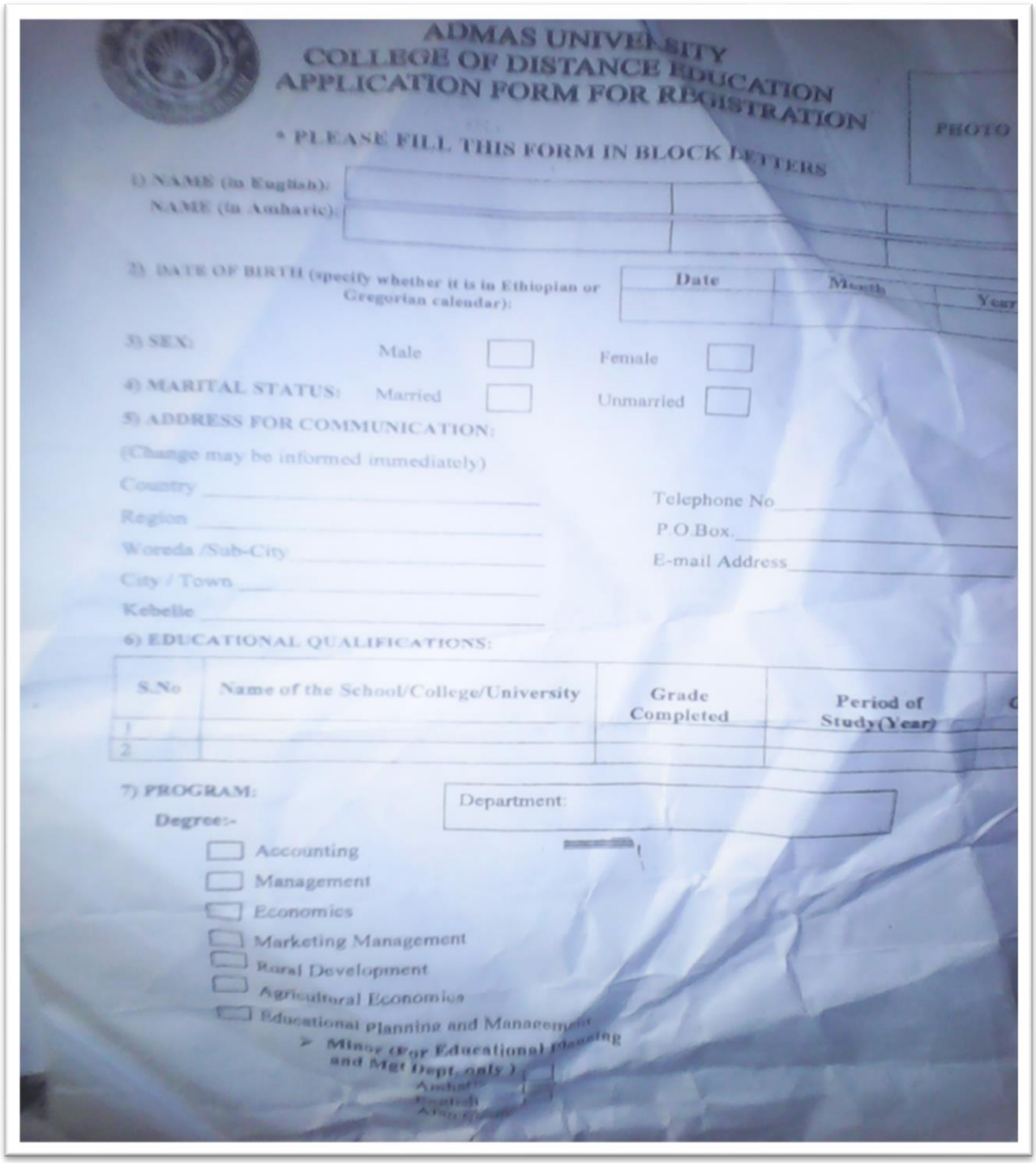


Figure6. 1 questioner about the organization



ADMAS UNIVERSITY
COLLEGE OF DISTANCE EDUCATION
APPLICATION FORM FOR REGISTRATION

PHOTO

* PLEASE FILL THIS FORM IN BLOCK LETTERS

1) NAME (in English):
NAME (in Amharic):

2) DATE OF BIRTH (specify whether it is in Ethiopian or Gregorian calendar):

Date	Month	Year

3) SEX: Male ☐ Female ☐

4) MARITAL STATUS: Married ☐ Unmarried ☐

5) ADDRESS FOR COMMUNICATION:

(Change may be informed immediately)

Country _____ Telephone No _____

Region _____ P.O.Box _____

Woreda /Sub-City _____ E-mail Address _____

City / Town _____

Kebelle _____

6) EDUCATIONAL QUALIFICATIONS:

S.No	Name of the School/College/University	Grade Completed	Period of Study(Year)
1			
2			

7) PROGRAM:

Department:

Degree:-

- ☐ Accounting
- ☐ Management
- ☐ Economics
- ☐ Marketing Management
- ☐ Rural Development
- ☐ Agricultural Economics
- ☐ Educational Planning and Management
  - Minor (For Educational Planning and Mgt Dept. only)

Figure6. 2 student registration form of the organization