DESIGN DOCUMENT

Study-Ease

M. Zain Ammad (CS-19079)

Moiz Ali (CS-19087)

Syed Saad Ali (CS-19088)

Areeb Bin Azim (CS-19090)

Department of Computer and Information Systems
NED University of Engineering and Technology

Submitted to

Miss Fakhra Aftab

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Chapter 1

Introduction

This website is designed to assist the students in their academics by predicting their future career goals based on their performance which is tested via Online Quiz. Moreover, the website have options to download notes of different subjects.

1.1 Document Purpose

The document describes the requirements and specifications of the **"Study-Ease**" Website. It explains the functional features of this website, the main purpose of this website is to help students to select their field of interest through multiple quiz assessments. They can also download notes on their related topics.
Also this website enables them to visualize their performance through graph.

1.2 Product Scope

Usually most of the students are confused after their matriculation whether they should opt for Engineering, Medical Sciences or Commerce. This website provides them a solution through its multiple quiz process. After completing all quiz assessments, the website leads them to the particular field of their interest by comparing their scores.

1.3 Intended Audience and Document Overview

This document is intended to serve as a guidance to course teachers and students (matriculation passed). It can be used as a guiding tool for students especially matric passed to facilitate them in their career choice. The rest of this SRS is organized as follows:

Section 2 provides an overview description of the software. It gives the proficiency level to be expected of the user, some general constraints,

assumptions and dependencies that are presumed while making the software. It gives a basis to establish the technical requirements in the next chapter.

Section 3 contains most important features presented with detailed description, and requirements. It gives specific requirements which the software is expected to deliver. Functional requirements are given in this section along with the External Interface Requirements. A Use case Diagram is also illustrated to give a clear idea of the software to be developed.

Section 4 specifies the Non-Functional requirements. Performance, safety and security requirements are mentioned over here. In addition, Software Quality Attributes have been discussed in detail.

1.4 Definitions, Acronyms and Abbreviations

HYPER TEXT MARKUP LANGUAGE – It is a language for formulate the structure of the website.

CASCADING STYLE SHEET – It is used for designing the website and enhancing its feel.

JAVASCRIPT – Scripting language used on client side as well as Server side and also allows us to make web pages interactive.

REACT.JS: A JavaScript library used for building user interfaces, specifically for single page applications.

MATERIAL UI: A React library allows us to import and used different components to create a user interface.

NODE JS: It is a runtime environment that runs on the V8 Engine and execute js code outside a web browser.

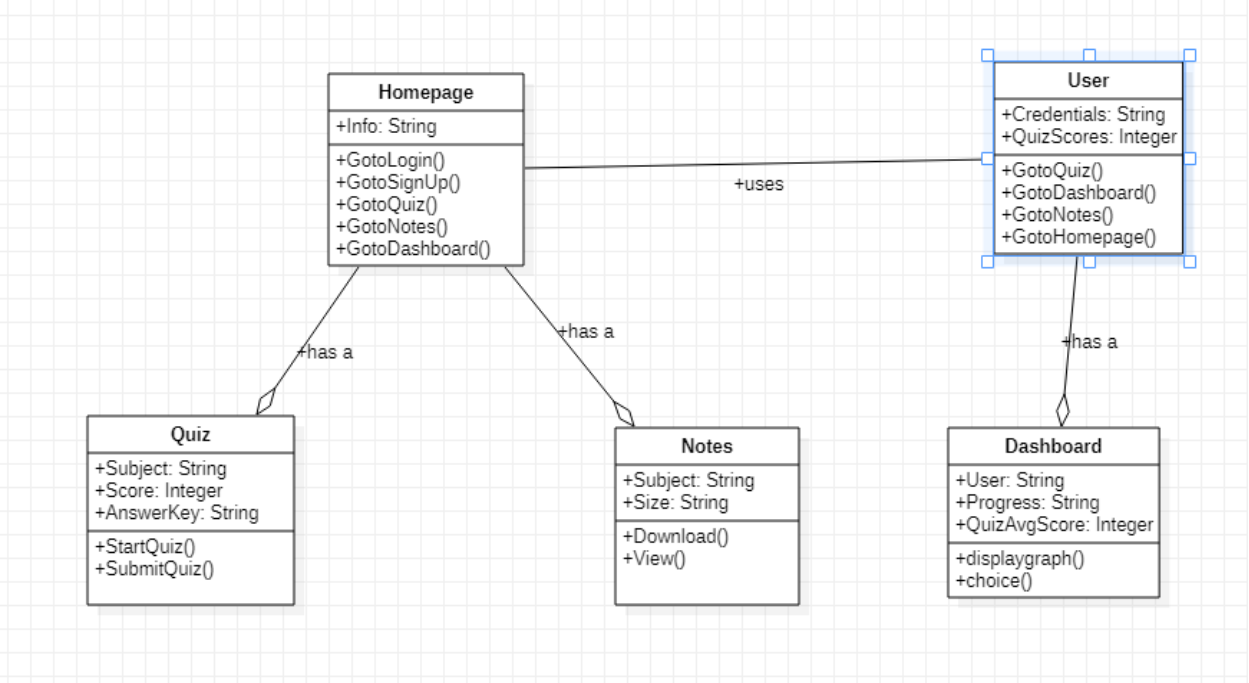
EXPRESS JS: A framework of Node js helps us to manage everything from routes to handle request and views.

FIREBASE DB: A platform used as a database in this project.

Chapter 2

Object Oriented Design

2.1 Class Diagram



2.2 Data Dictionary

2.2.1 Student Collection

STUDENT			
Field Name	**Data Type**	**Description**	**Example**
username	string	student's name	Moiz
email	string	student's email	moiz69@gmail.com
password	string	student's password	admin619
qualification	string	student's last qualification	Intermediate
mt_quiz1	integer	maths quiz 1 marks	10
mt_quiz2	integer	maths quiz 2 marks	9
mt_quiz3	integer	maths quiz 3 marks	8
bio_quiz1	integer	biology quiz 1 marks	10
bio_quiz2	integer	biology quiz 2 marks	7
bio_quiz3	integer	biology quiz 3 marks	6

2.2.2 Teacher Collection

TEACHER

Field Name	Data Type	Description	Example
username	string	teacher's name	Zain
email	string	teacher's email	zain69@gmail.com
password	string	teacher's password	zain619

2.2.3 Admin Collection

ADMIN

Field Name	Data Type	Description	Example
username	string	Admin's name	Areeb
email	string	Admin's email	areebbinazim69@gmail.com
password	string	admin's passv	admin619

2.2.4 Quiz Collection

QUIZ			
Field Name	**Data Type**	**Description**	**Example**
Subject	string	Subject	Physics
score	integer	score obtained	10
answer_key	string	answer key of that particular quiz	{Object stored in answer key}

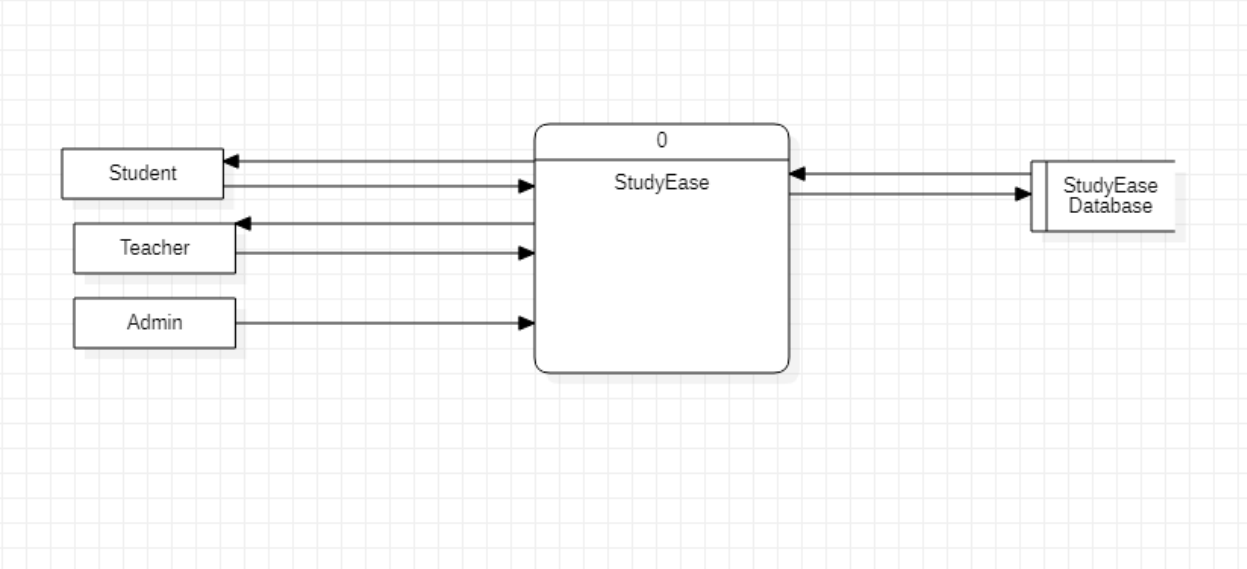
2.2.5 Notes Collection

NOTES			
Field Name	**Data Type**	**Description**	**Example**
info	string	name, email of the authenticated user	Ali ali123@gmail.com
subject	string	subject name..notes to be downloaded	Mathematics
size	string	the size of the uploaded pdf	365mb

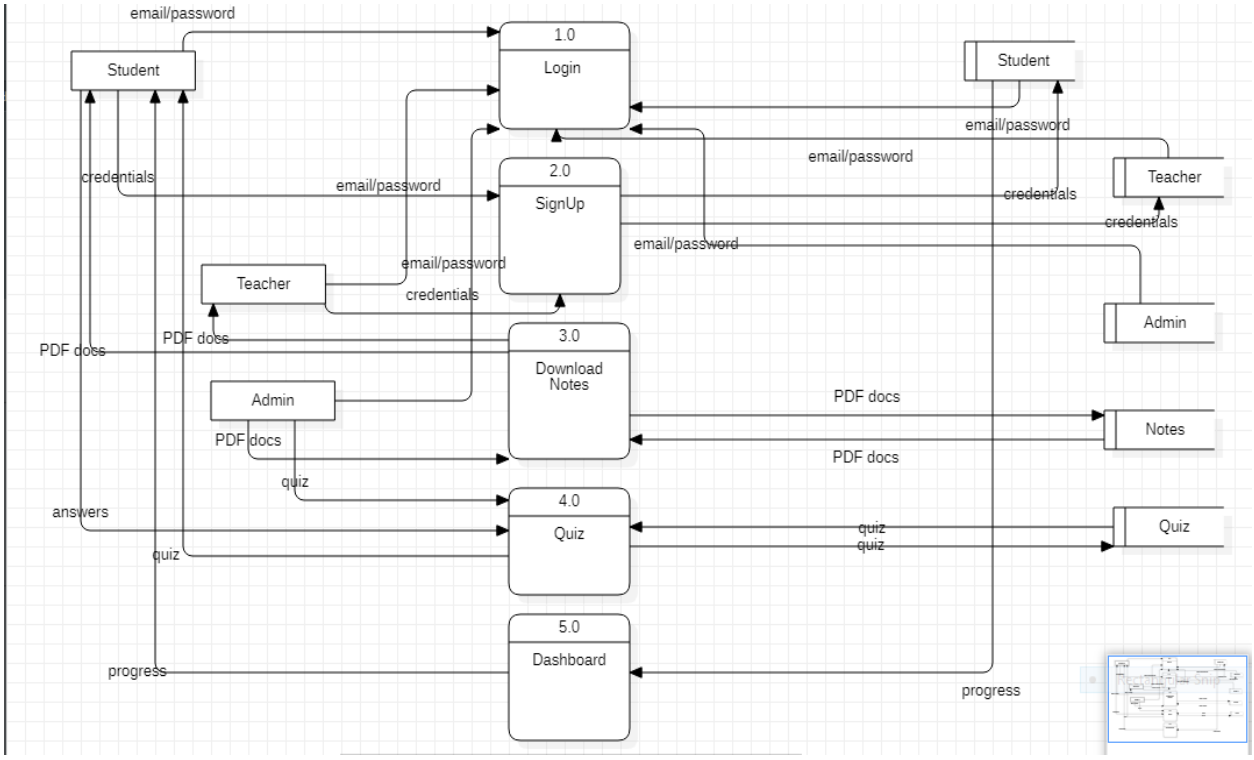
Chapter 3

Functional Modelling

3.1 DFD Level 0



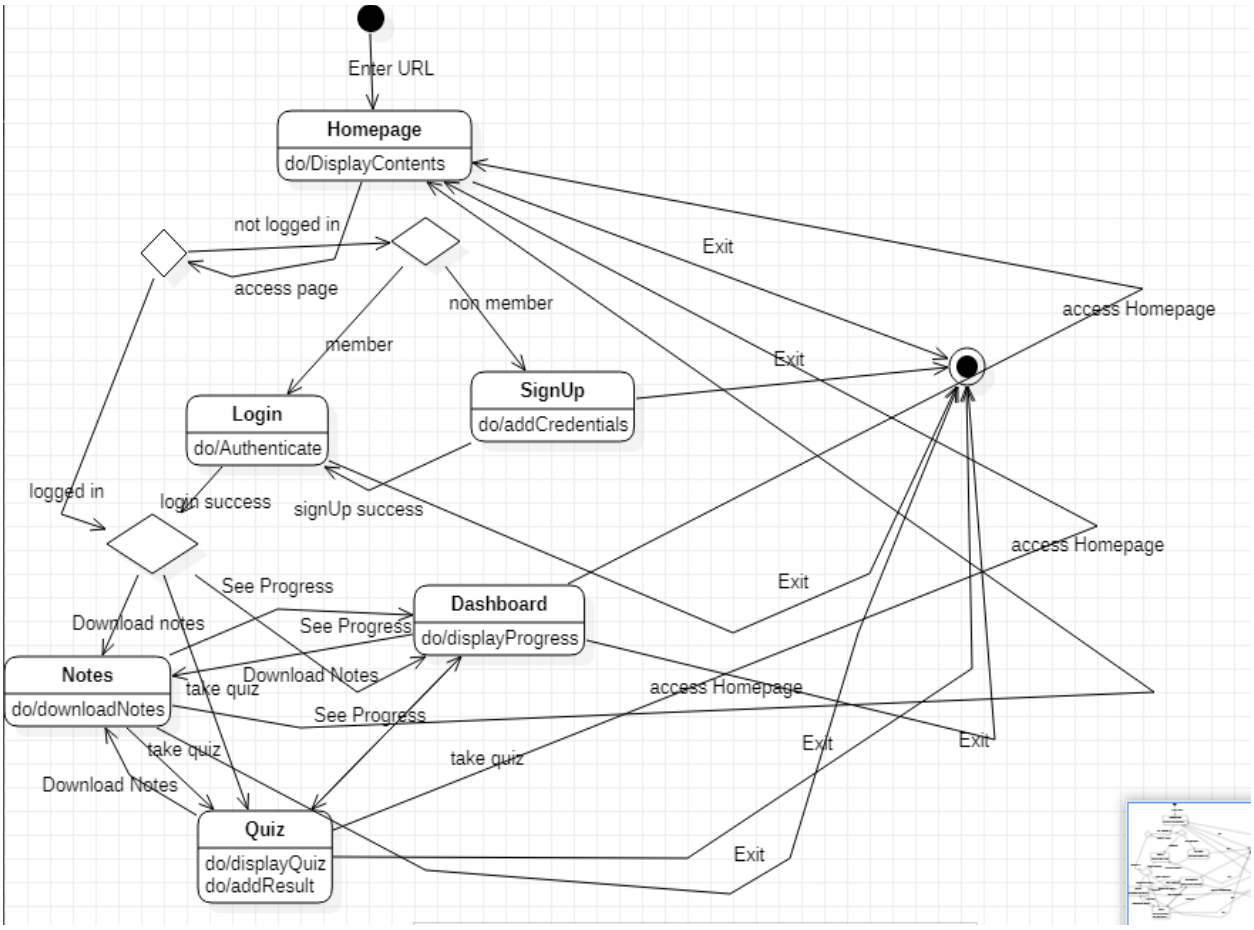
3.2 DFD Level 1



Chapter 4

Behavioral Modelling

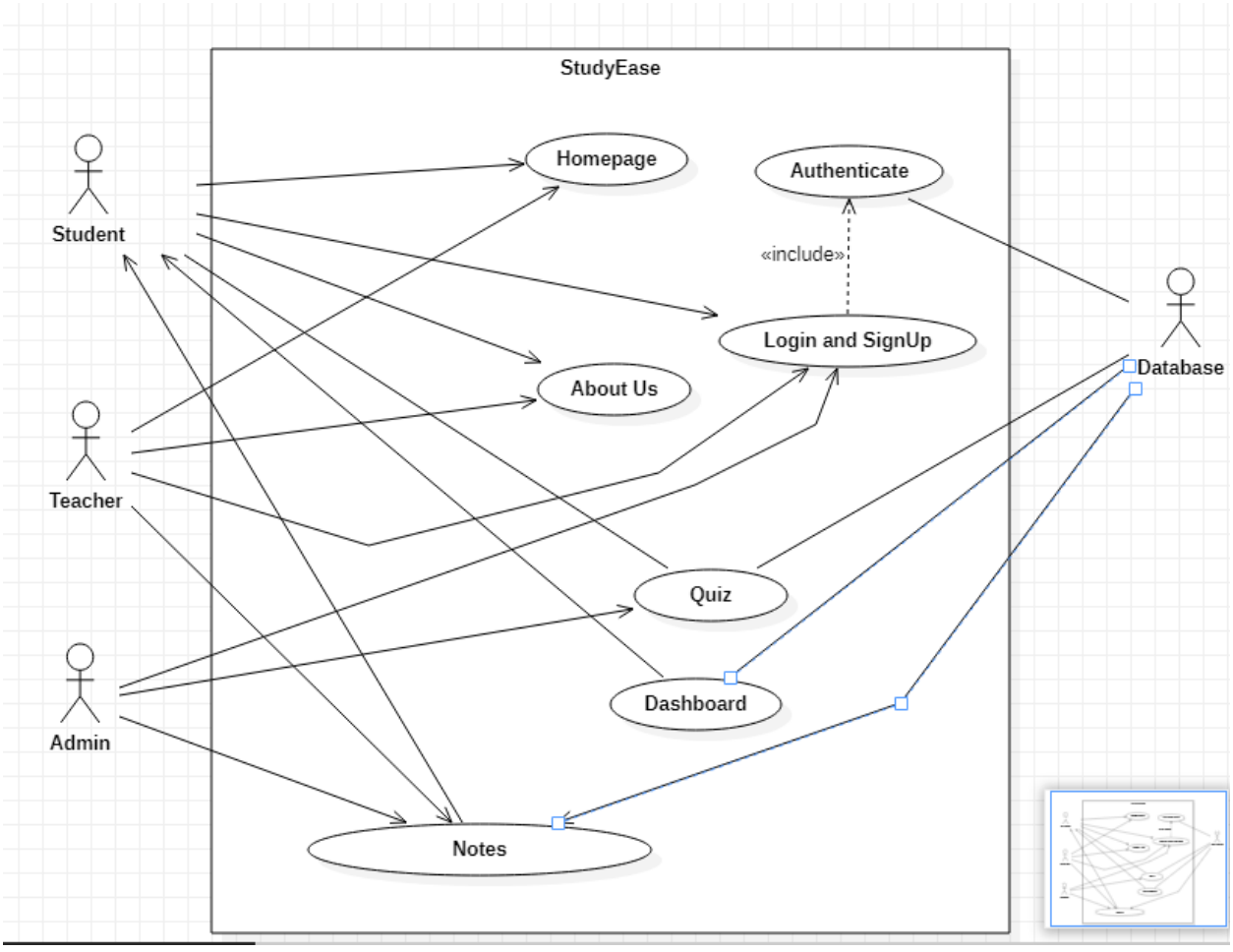
4.1 State Transition Diagram



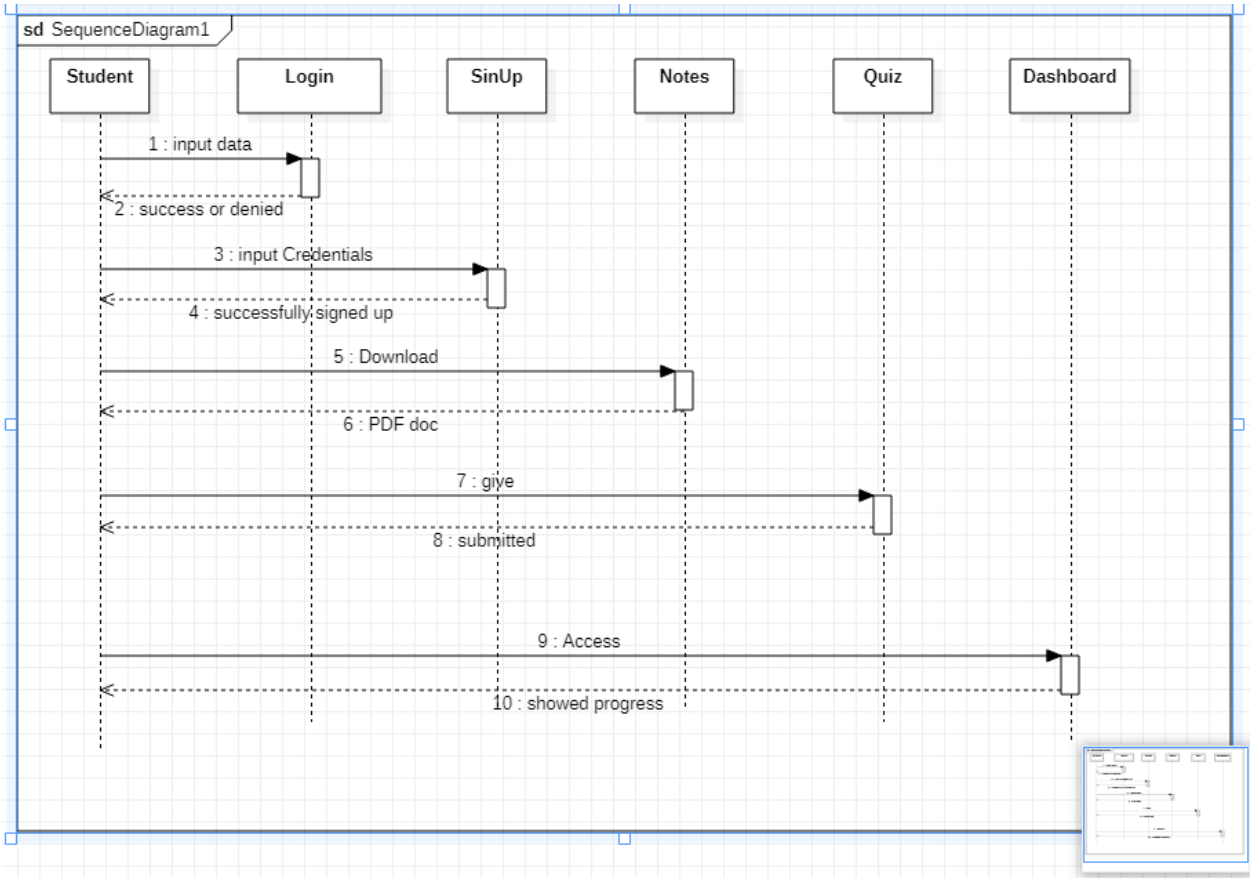
Chapter 5

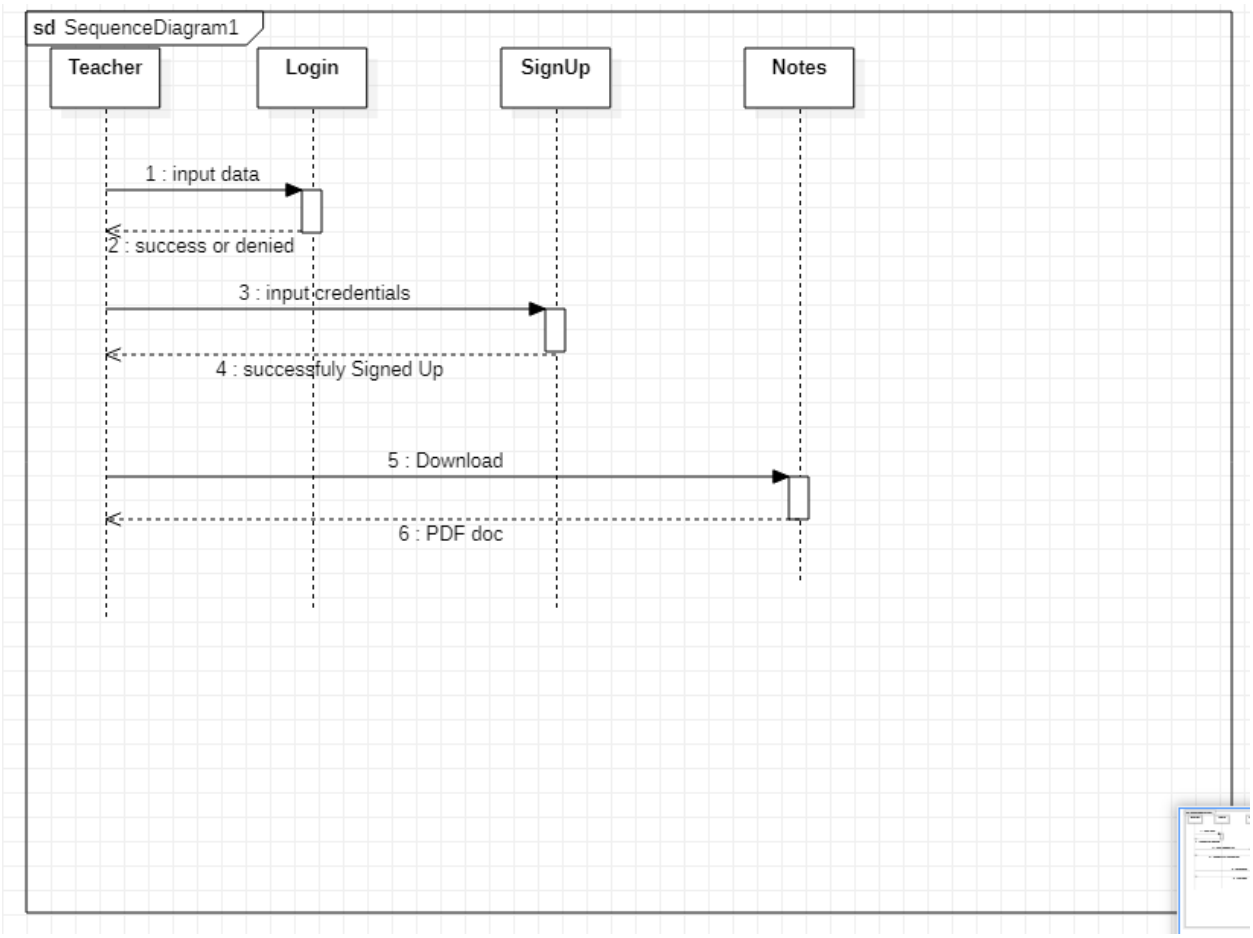
Interaction Modelling

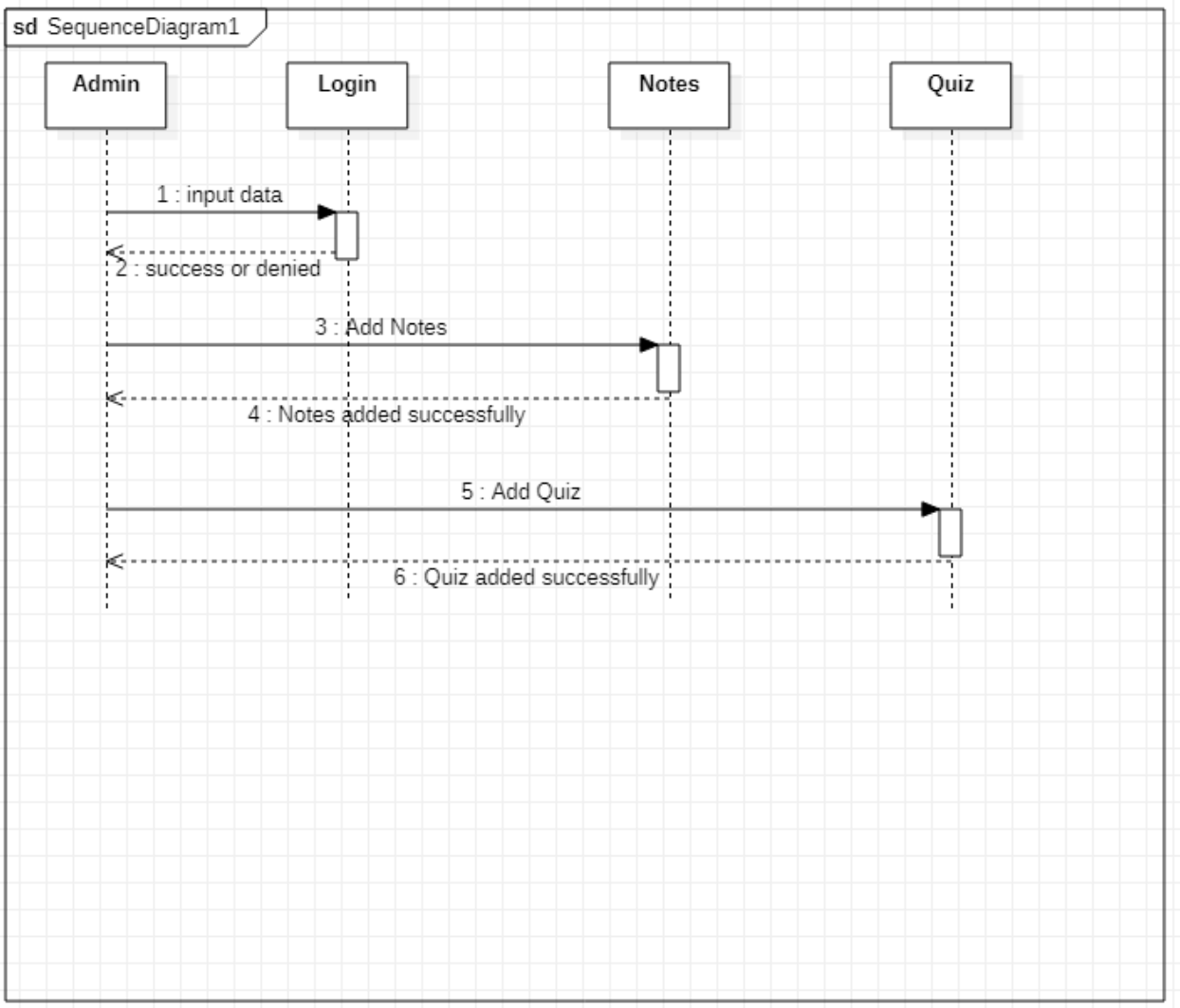
5.1 Use Case Diagram



5.2 Sequence Diagram




sd SequenceDiagram1
Teacher
Login
SignUp
Notes
1 : input data
2 : success or denied
3 : input credentials
4 : successfuly Signed Up
5 : Download
6 : PDF doc


sd SequenceDiagram1
Admin
Login
Notes
Quiz
1 : input data
2 : success or denied
3 : Add Notes
4 : Notes added successfully
5 : Add Quiz
6 : Quiz added successfully

Chapter 6

Deployment View

6.1 Component- Deployment Diagram