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**Eduincare - ERP Solution for Educational Institutions**

By

Ismael Miah

ID: 171-35-196

**Supervised By**

Mr. Shariful Islam

Lecturer

Department of Software Engineering

Daffodil International University

This Report Presented in Partial Fulfillment of the Requirements for the Degree  
of Bachelor of Science in Software Engineering

## **APPROVAL**

This project titled on “Eduincare – erp solutions for educational institute”, submitted by Name: Ismael Miah, ID: 171-35-196 to the Department of Software Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of Bachelor of Science in Software Engineering and approval as to its style and contents.

## DECLARATION

It hereby declares that this project has been done by me under the supervision of Shariful Islam, Lecturer, Department of Software Engineering, and Daffodil International University. It also declares that neither this project nor any part of this has been submitted anywhere else for award of any degree.

### Submitted By:



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### Ismael Miah

ID: 171-35-196

Batch: 22th

Department of Software Engineering

Daffodil International University

### Supervised By:



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### Shariful Islam

Lecturer

Department of Software Engineering

Faculty of Science & Information Technology

## **Acknowledgement**

First and foremost, I would like to offer my heartfelt gratitude to almighty God for His wonderful favor, which has enabled me to successfully complete my final year project.

Mr. Shariful Islam, Lecturer, Department of SWE, Daffodil International University, Dhaka, is my supervisor, and I owe him a tremendous debt of gratitude. To carry out this assignment, my supervisor has extensive knowledge and a strong interest in the subject of development. His never-ending patience, intellectual direction, persistent encouragement, constant and energetic supervision, constructive criticism, helpful suggestions, and reading numerous poor versions and revising them at all stages allowed this project to be completed.

I would like to convey my heartfelt gratitude to Prof. Dr. Imran Mahmud, Head, Department of SWE, Daffodil International University, as well as other academic members and staff members of the SWE department at Daffodil International University, for their assistance in completing our project.

I'd like to express my gratitude to every one of our Daffodil International University classmates who participated in this discussion while completing their course work.

Finally, we must recognize and thank our parents' unwavering support and patience.

## **Abstract**

Eduincare is an initiative to provide education in every nook and corner of the world, the future of education looks promising. Meanwhile, with growing competition between educational institutes and businesses, everyone is looking to next-gen enterprise technology solutions.

Increase productivity, stand out from the pack, and focus on what matters — academics. ERP Next is an open-source solution for student information management, employee management and expenses that can help our Educational Institutes and keep all critical information in one integrated system.

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## CHAPTER 1: INTRODUCTION

### **Project Overview**

In today's world, education is critical to a country's progress. Many educational groups strive to improve the quality of education. Managing school resources is one component of this progress.

Eduincare is an intermediary that performs one or more of the following functionalities: Student Admission, Employee Registration, Student List, Employee List, Student Attendance, Employee Attendance, Student Routine, Result Management, Payroll & Accounts. Eduincare is carried out by any individual or institution engaged in providing a service to students, teachers, guardians, and other persons.

Eduincare is a service that provides all of the services that an educational institute requires in order to make your life easier and faster by ensuring its performance. Eduincare is an online ERP solution for educational institutions that enables them to efficiently manage all administrative activities by linking all stakeholders, processes, and departments on a single platform. User Management System, Admission Process, and Attendance System are all simple to use.

Eduincare is a technology that will provide you a bird's eye perspective of the complete educational institution's operation. It is a management information system that aids in the administration of several procedures in a learning institution, such as General Administration, Staff Management, Academics, Student Management, and Accounts, among others. The data is created with cutting-edge technology, making decision-making much faster, more effective, and simpler than ever before. Additionally, it contributes to the institution's overall educational quality.

We use databases, and database technology is having a significant impact on computer usage. The system was built with c# and SQL Server 2019, allowing it to run on any Windows operating system.

## **Project Purpose**

Eduincare is concerned with the management of all student information pertaining to general administration, academics, student management, and staff management, among other things. It also manages resources that were previously managed and handled by personnel. The project's major goal is to connect different parts of the organization in a uniform way so that complicated functions may be handled efficiently by both technical and non-technical people.

## **Background**

- To keep track of student, course, faculty, and staff information.
- Update all pupils' information on a regular basis.
- Reports.
- Assistance in making decisions.

## **Benefits & Beneficiaries**

- Increases Productivity
- Best Student-Teacher Collaboration
- Saves Natural Resources
- Access from Anywhere
- Increase in Student Enrollment Ratio
- Transparency with Parents Increases
- Reduction in the number of people communicating
- Reduces Workload

## Goals

- Manage all student, professor, and staff records.
- Students and employees can interact with their basic profiles, which include course and personal information.
- Students and employees can obtain the necessary documents from the supporting document section.
- Students can take an online exam and receive their results immediately.
- Faculty have access to information on students and their classes.
- To enable the administrator to receive a daily report.
- Faculty are given the ability to assess students online.
- Manage batches and courses for specific students.
- Admin has the ability to publish exam results and perform a variety of other duties.

## System Model (Block Diagram)

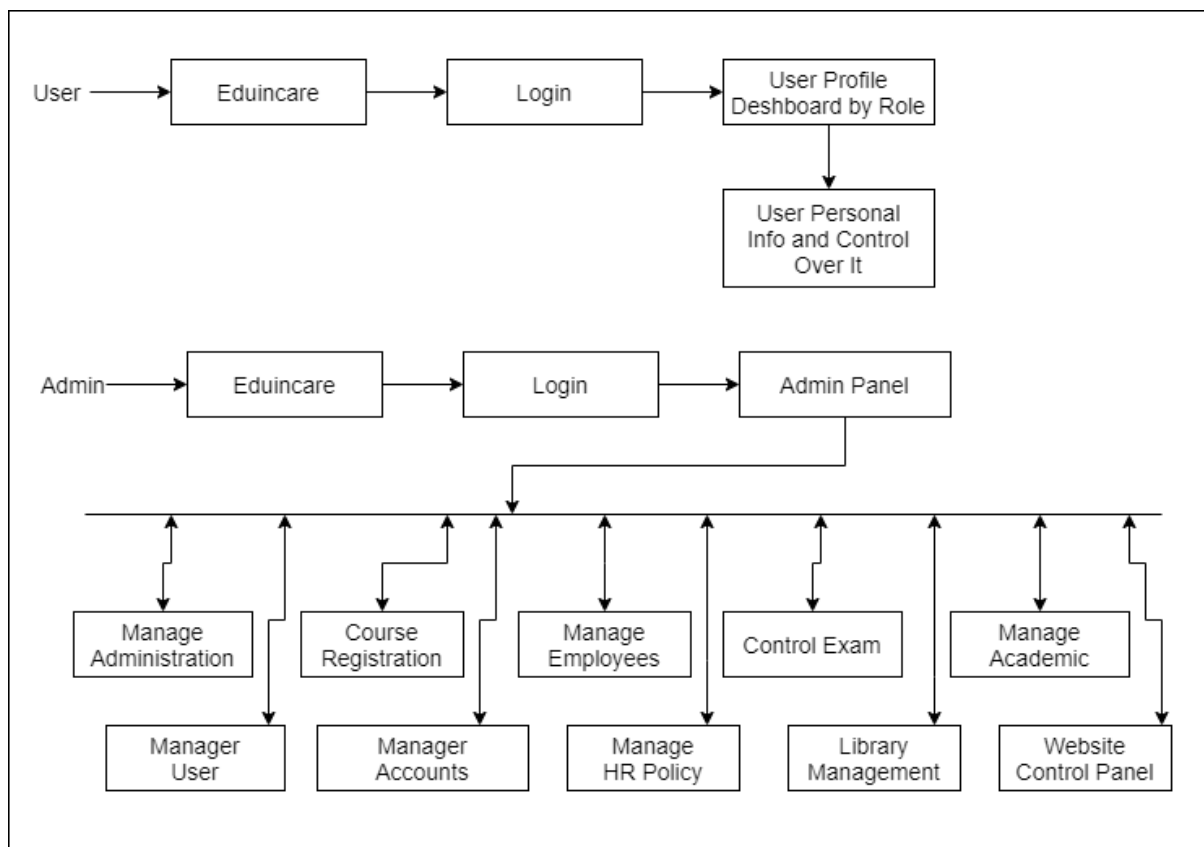


Figure 1: Block Diagram

# Project Schedule (Gantt Chart)

## Eduincare

Final Project  
 Ismael Miah  
 ID: 171-35-196

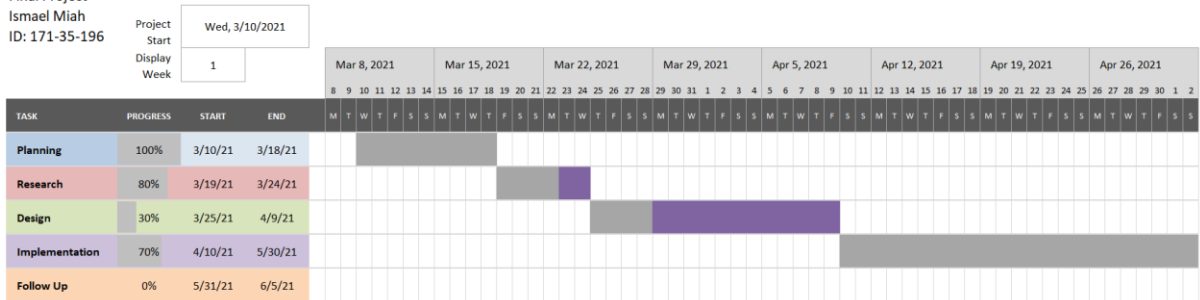


Figure 2: Gantt Chart

## CHAPTER 2: SOFTWARE REQUIREMENT SPECIFICATION

### Functional Requirements

Functional Requirements No	Functional Requirements Description
FR-1	User Should be logged into System
FR-2	User Should have control over his/her personal Information
FR-3	User might be getting more control by his/her role.
FR-4	Admin has complete authority over the system. For example, academics, accounting, and management.
FR-5	Admin can configure website

*Table 1: Functional Requirements*

### Requirements and Specifications

Requirements & Specifications are important for a project as it contains what is necessary to build it. Requirements and Specification may change for a certain time as the project building on as it's demand

### Hardware Requirements

To build the project we need hardware components, such as:

- Personal Computer (Laptop/Desktop)
- Internet Connection

## **Technical Requirements**

To make this project we used different types of programming language and frameworks to make it more user friendly.

Frontend: HTML5, CSS3, JavaScript, jQuery and Bootstrap.

Backend: C#, Asp .Net Core Framework.

Database: SQL Server

Operating System: Windows

## **HTML5**

HTML stands for Hypertext Markup Language. HTML works as a display mode of a web application or a web page. CSS helps it for color combination and designs. HTML is a primary builder for a web page. HTML works by implementation of tags. There are so many tags for designing a page. HTML has elements and attributes. It has several kinds of content, each of which is allowed to be used in certain contexts and is disallowed in others.

## **CSS3**

CSS is an assistant scripting language of HTML to implement high quality colors and designs. CSS modifies HTML documents. CSS controls the layout of web pages. It can do it all at once. CSS has three types. One is Inline CSS that is strongest, Internal or Embedded CSS, External CSS. To work, the CSS file must be linked to the HTML file. The HTML file will not be updated if the CSS file is not linked.

## **JavaScript**

JavaScript is a language that is used in both server-side and user-side for making the webpages interactive. JavaScript provides users with engage components. JavaScript is a helping hand for HTML & CSS to make a webpage more interactive. We used JavaScript to use ajax and manipulating the DOM

## **jQuery**

jQuery is a JavaScript library which gives a simple language API endpoint to manipulate the DOM tree. It is very easy to work with ajax, CSS manipulation using jQuery.

## **Bootstrap**

Bootstrap is an open-source framework for CSS. It helps to do typography, forms, buttons, navigation and so more interface components. As it is javascript extension supported, so it is easy to build a good visual web page.

## **C#**

C# is a multi-paradigm, general-purpose programming language that supports static typing, strong typing, lexically scoped, imperative, declarative, functional, generic, object-oriented, and component-oriented programming.

## **Asp .Net Framework**

**ASP.NET is a Microsoft-developed open-source web framework for creating modern web apps and services that run on macOS, Linux, Windows, and Docker.**

## **SQL Server**

Microsoft SQL Server is a relational database management system that Microsoft has created. It is a database server, which is a software product whose principal role is to store and retrieve data as required by other software applications, which may run on the same computer or on a networked computer.



## **Windows**

Microsoft Windows, also known simply as Windows, is a collection of proprietary graphical operating system families developed and marketed by Microsoft

## CHAPTER 3: SYSTEM ANALYSIS

### Use Case Diagram

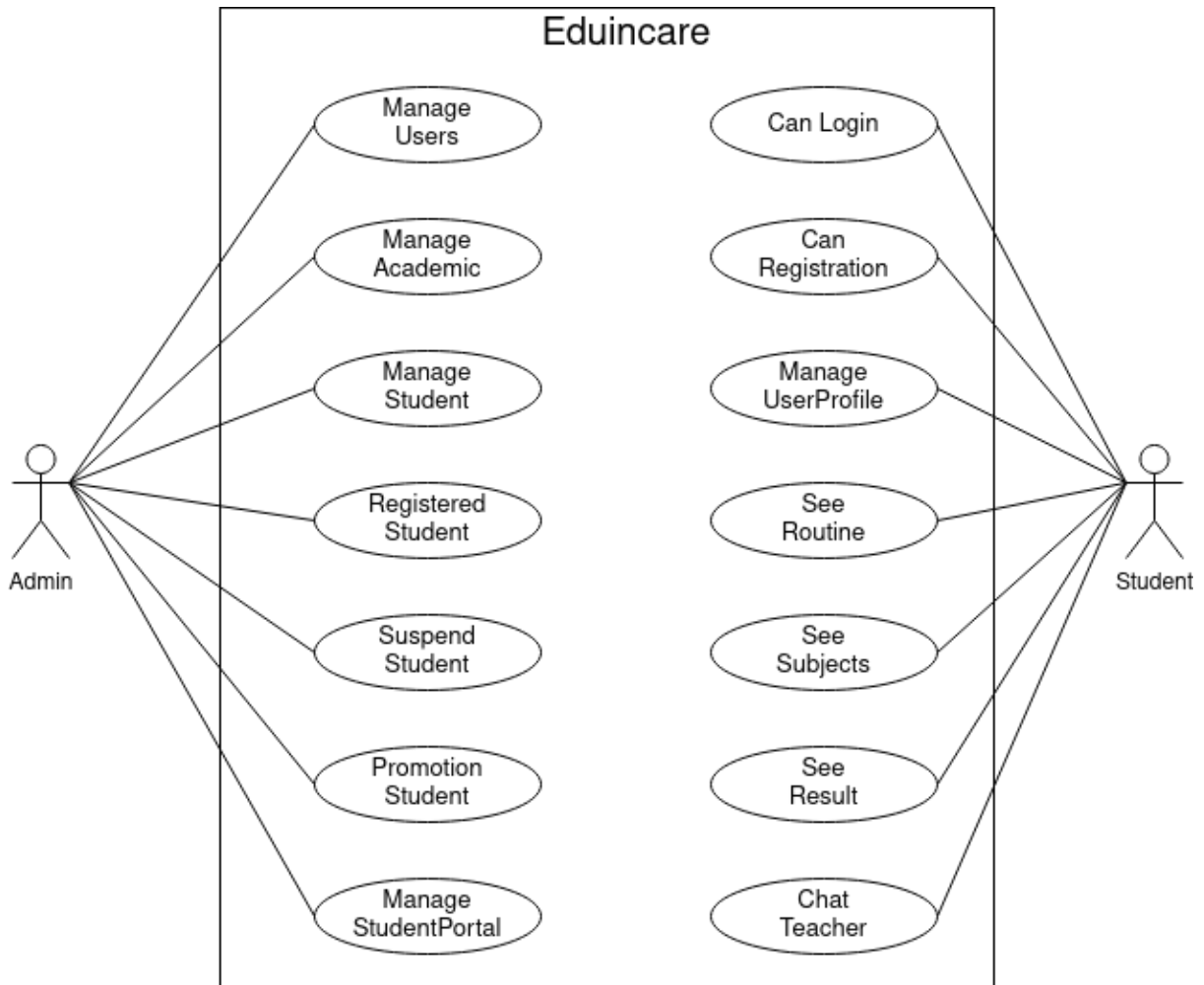


Figure 3: Diagram of Admin & Student Use Cases

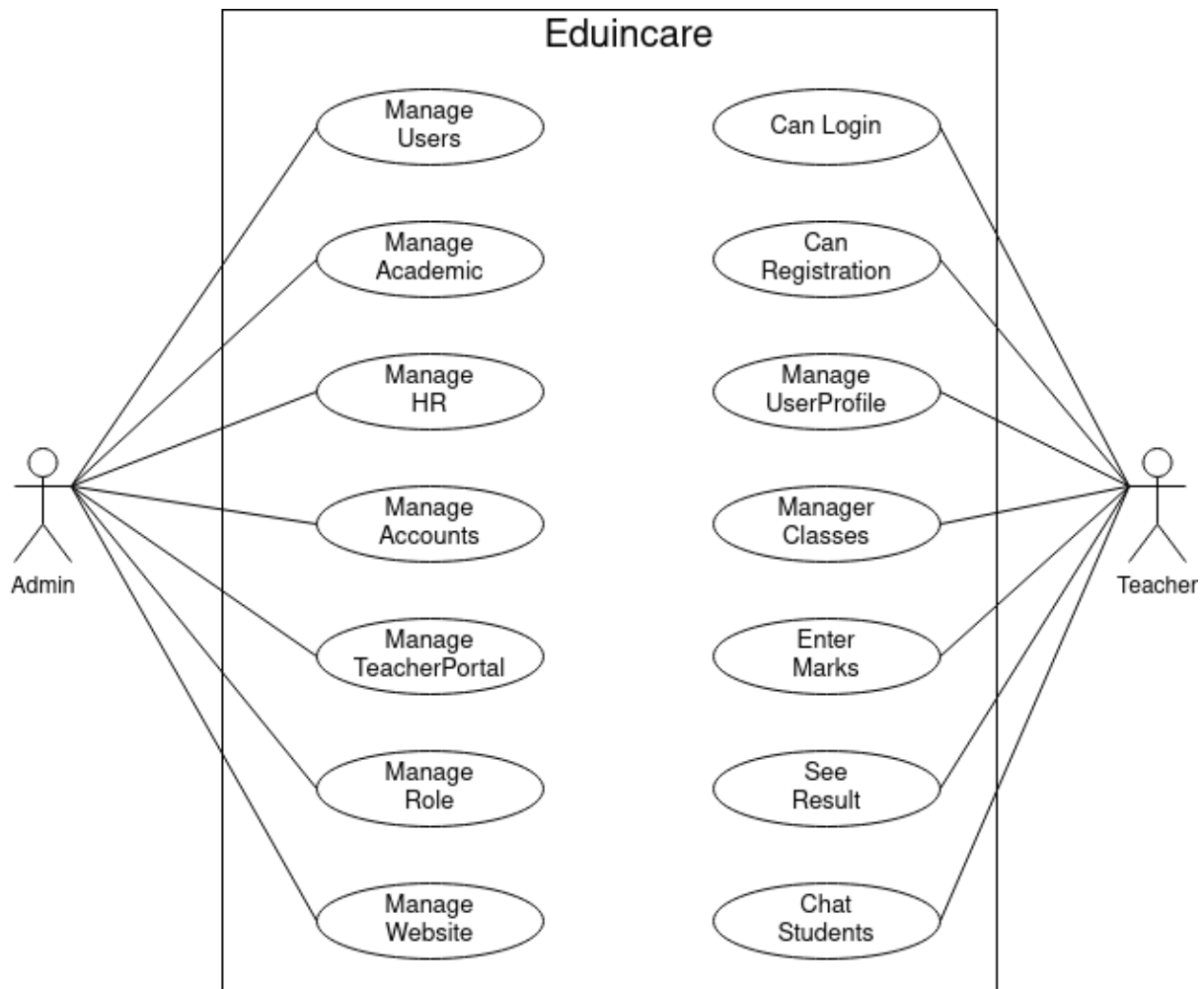


Figure 4: Diagram of Admin & Teacher Use Cases

### Use Case Description

Use Case Id	Eduincare_UC_1
Use Case Name	Can Login
Created By	Ismael Miah
Created Date	10-06-2021
Description	The user logs into the Eduincare System in this use scenario. The actors starting this use case are Student, Employees, and Admin.
Primary Actor	User

Secondary Actor	None
PreCondition	1. User must be a student or employee of this organization.
PostCondition	1. The system displays the relevant homepage.

*Table 2: Can Login Use Case Description*

Use Case Id	Eduincare_UC_2
Use Case Name	Can Registration
Created By	Ismael Miah
Created Date	10-06-2021
Description	This use case describes how a user registers into the Eduincare System. The actors starting this use case are Admin.
Primary Actor	Admin
Secondary Actor	None
PreCondition	1. Admin of this organization.
PostCondition	

*Table 3: Can Registration Use Case Description*

Use Case Id	Eduincare_UC_3
-------------	----------------

Use Case Name	Manage Profile
Created By	Ismael Miah
Created Date	10-06-2021
Description	This use case describes how a user manages his/her own profile. The actors starting this use case are Student, Employees, and Admin.
Primary Actor	User
Secondary Actor	None
PreCondition	1. Users must have an active account of this organization.
PostCondition	1. The system displays the relevant homepage.

*Table 4: Manage Profile Use Case Description*

Use Case Id	Eduincare_UC_4
Use Case Name	See Routine
Created By	Ismael Miah
Created Date	10-06-2021
Description	This use case describes how an user can see class routine. The actors starting this use case are Student, Employees, and Admin.
Primary Actor	User

Secondary Actor	None
PreCondition	1. Users must have an active account of this organization.
PostCondition	1. The system displays the relevant homepage. 2. Use will see the <b>See Routine</b> menu.

Table 5: See Routine Use Case Description

## Activity Diagram

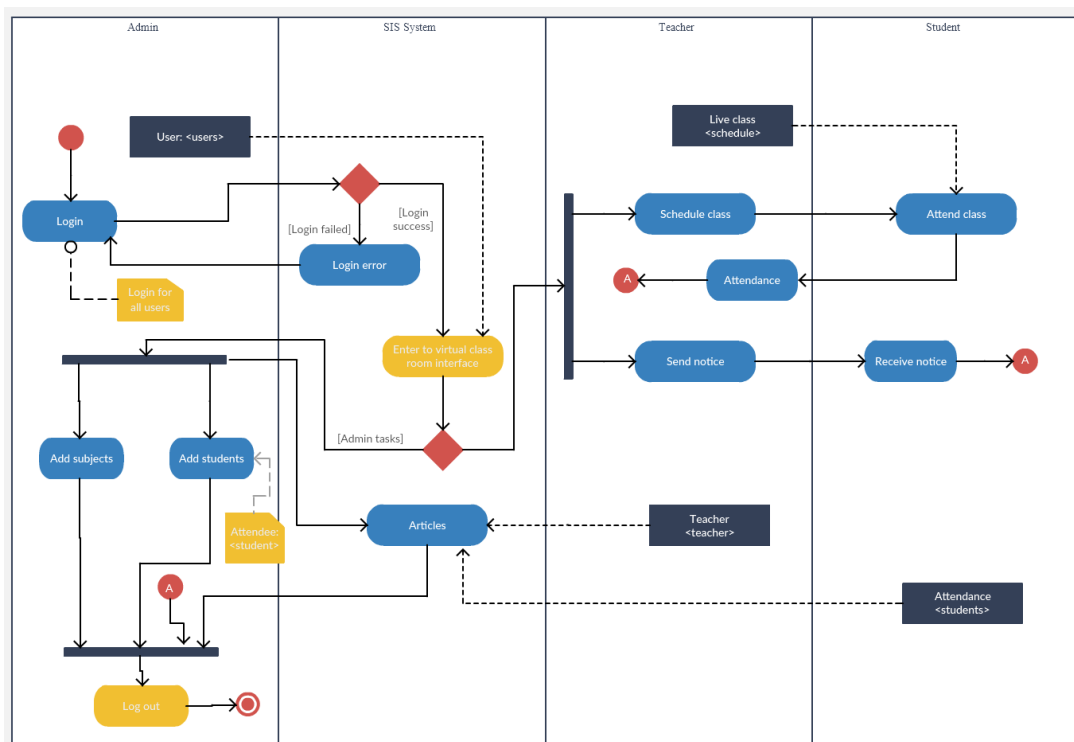


Figure 5: Activity Diagram

## Sequence Diagram

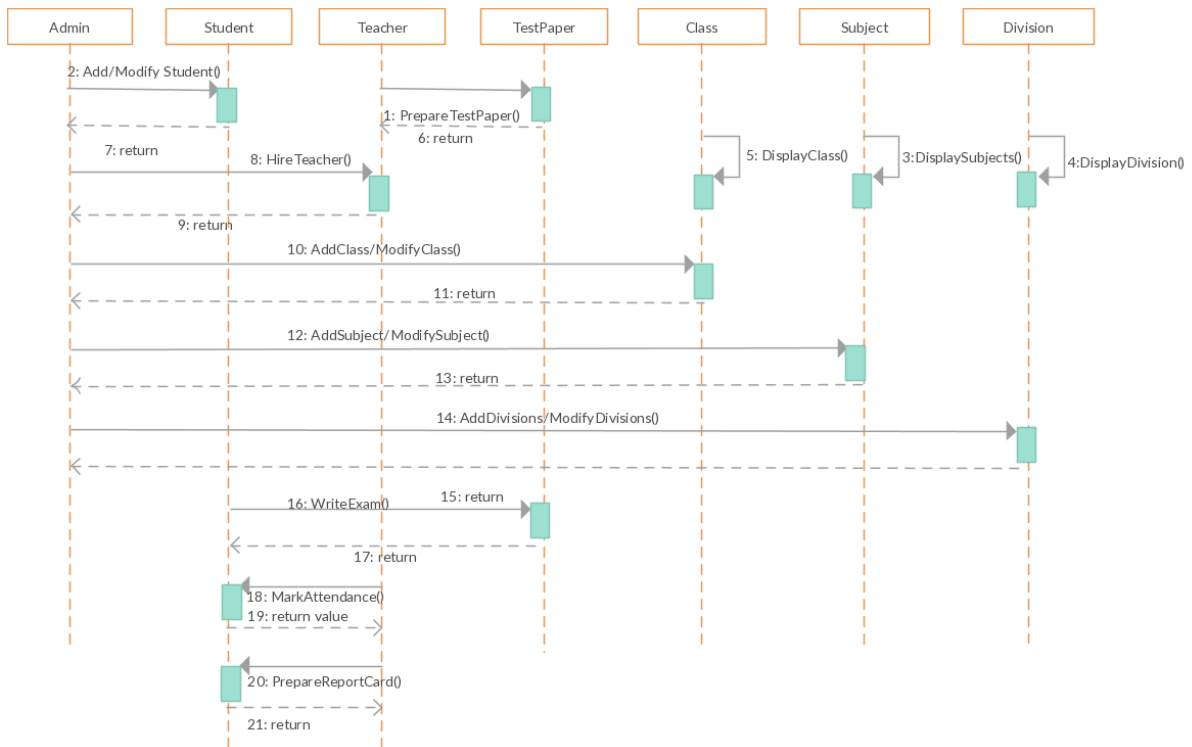


Figure 6: Sequence Diagram

## Class Diagram

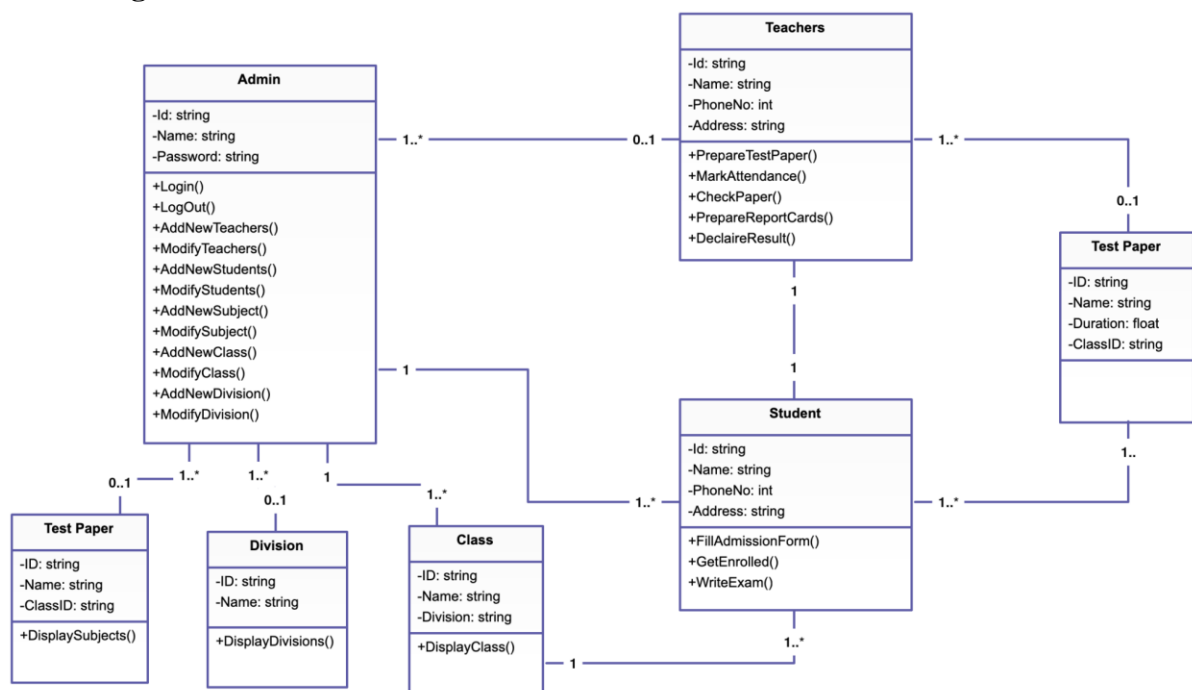


Figure 7: Class Diagram

## CHAPTER 4: PROJECT SUMMARY

### **Github Link**

[ismail5g/EduInCare \(github.com\)](https://github.com/ismail5g/EduInCare)

### **Limitation**

When I first started thinking about working on this project, I ran into a lot of roadblocks. There are just a few negatives in this program; with largely just benefits, these systems contain a few countable negatives. Minor technological problems are common in applications, and these systems are no exception, but ratification is instantaneous. This software can only be used by persons who are used to using cell phones or computers on a regular basis. The application's extensive modules and features make it tough for a user to operate. A user's ability to obtain information is hampered by the lack of a proper internet network, which is a big drawback. Although the possibility of data misuse is inconvenient, all of these problems may be avoided by selecting appropriate, cost-effective, and finest software for an organization's needs.



## **Obstacles & Achievements**

I learn so many things that are also needed to apply for a job in the real life marketplace. In this sense I can say that this project helps me to grow and be ready for the market. I always appreciate that working hard is the best policy.

## **Future Scope**

Currently this web-application works on my local machine. In the near future, I will deploy it on aws server machine, so that it can be maintained easily and scalable via these amazing clouds.

Future this application will be working as an online application which includes the feature of standards Student Portal and Teacher Portal. Student and Teachers then access their personal accessible terms.