WEB BASED APP FOR "Edu Manager: A learning management system"

BY

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

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APPROVAL

This Project titled "**Edu Manager: A learning management system**", submitted by Nazim Uddin ID: 163-15-8485 to the Department of Computer Science and Engineering, Daffodil International University, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 07 October 2020.

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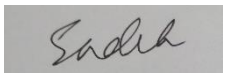

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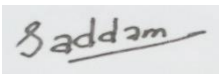

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Declaration

We hereby declare that, this project has been done by us under the supervision of **Dr. Sheak Rashed Haider Noori, Associate Professor & Associate Head, and Department of CSE** Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

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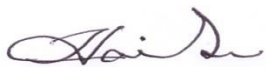

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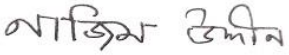

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ACKNOWLEDGEMENT

First we express our heartiest thanks and gratefulness to almighty God for His divine blessing makes us possible to complete the final year project/internship successfully.

We really grateful and wish our profound our indebtedness to **Dr. Sheak Rashed Haider Noori**, **Associate Professor & Associate Head**, Department of CSE Daffodil International University, Dhaka. Deep Knowledge & keen interest of our supervisor in the field of "*Computer Science*" to carry out this project. His endless patience ,scholarly guidance ,continual encouragement , constant and energetic supervision, constructive criticism , valuable advice ,reading many inferior draft and correcting them at all stage have made it possible to complete this project.

We would like to express our heartiest gratitude to **Prof. Dr. Syed Akhter Hossain**, Head Department of CSE, for his kind help to finish our project and also to other faculty member and the staff of CSE department of Daffodil International University.

We would like to thank our entire course mate in Daffodil International University, who took part in this discuss while completing the course work.

Finally, we must acknowledge with due respect the constant support and patients of our parents.

ABSTRACT

Our project title is "**Edu Manager: A learning management system**". It is an online base web application for learning management. Any user can create an automated learning management system account for their institute by registering and it will under the subdomain. Admin can be able to create separate user roles to control each branch of the organization. Also this system has many user panels. Admin Panel, Web Management Panel, User Register Panel, Exam Controller Panel, Accountant Controller Panel, Librarian Panel, Teacher Panel, Student Panel, Guardian Panel. Educational institutions that are not connected to the online learning system, to be connected to the online platform. This will help in improving the quality of education of educational institutions and students.

It includes virtual classrooms and online conversation systems. This will reduce the distance between students and teachers.

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CHAPTER-01

INTRODUCTION

1.1 Introduction

Presently a day's education assumes an incredible function being developed of any nation. A large number of education associations attempt to build education quality. One of the parts of this improvement is overseeing of school assets.

Learning Management System carried on by any individual or foundation occupied with offering a types of assistance to understudies, educators, watchmen and different people are mediator that performs at least one of the accompanying functionalities – Student Admission, Employee Registration, Student List, Employee List, Student Attendance, Employee Attendance, Student Routine, Result Management, Payroll and Accounts.

Learning Management System is such an assistance which offers a wide range of assistance for an educational organization to make your life simpler and quicker by guaranteeing its presentation. Simple User Management System, Easy Admission Process, Easy Attendance System.

EMS is a system that will give you an elevated perspective on the working of the whole educational establishment. It is a management data system assists with dealing with the various cycles in an educational foundation like General Administration, Staff Management, Academics, Student Management, and Accounts and so on. The data is made utilizing the most recent advancements and help's to settle on dynamic much quicker, compelling and simpler than at any other time. Likewise assists with improving the general nature of education of the organization.

We use information base and data set innovation are majorly affecting the developing utilization of PCs. The execution of the system was finished utilizing PHP, Laravel,

JavaScript and MySQL Server Database innovations, permitting system to be run in web Server.

Basically, Edu Manager dealt with your education organization by disentangling and robotizing measures and tending to the requirements of all partners helping them to be more proficient in their separate jobs.

1.2 Motivation of this project

A large number of students in Bangladesh do not pass the SSC HSC examination every year. There are many reasons for this, one of which is the distance between students and teachers, Lack of communication between parents and teachers, and the complexity of managing educational institutions.

This system will help us to reduce the distance between students and teachers and maintain connectivity between students and teachers at all times. In addition, communication between teachers and parents will increase, we have an online attendance system that informs the Guardian via SMS if students are absent. The addition of an automation system for academic activities will help students to concentrate.

1.3 Objectives

The key objects of the project are as follows:

- Bringing educational institutions to the online platform.
- Convert academic activities from manual system to automation system.
- Strengthen the relationship between students and teachers.
- Establishing relationships between teachers and parents

1.4 Expected Outcome

As academic activities change from manual to automation, teachers will be able to focus more on their students. Parents will be notified via SMS to the absence of students due to the bulk SMS system being linked to the online attendant system. This

will increase the class attendance of the students. Students and teachers will be connected through virtual classes, which will increase academic activities and strengthen the relationship between students and teachers. Teachers will be able to do online counseling with parents, which will make it much easier to monitor students.

1.5 Report Layout

In this Chapter 1: We discussed basic concept of '**Edu Manager**'. We covered introduction, motivation, objective, expected outcome and project management and finance.

In Chapter 2: We will discuss background of '**Edu Manager**'. We will try to cover Preliminaries, Related work, Challenge, Problem etc.

In Chapter 3: We will discuss 'Requirement specification for **Edu Manager**'.

In Chapter 4: We will discuss 'Design Specification' for **Edu Manager**'.

In Chapter 5: We will discuss 'Implementation and Testing' for **Edu Manager**'.

In Chapter 6: We will discuss about Impact on society, Environment and Sustainability.

In final Chapter 7: We will discuss about conclusion and our future scope, limitation. Improvement and conclusion of our project.

CHAPTER-02

BACKGROUND

2.1 Preliminaries

We are right now living in advanced Bangladesh. By associating with the rest of the world Bangladesh are being advanced nation. At present the vast majority in Bangladesh are utilizing Android telephones and a great many people are utilizing the web. Individuals are currently generally subject to the Internet for any undertaking. Individuals feel great accomplishing something on their telephone. At Present android applications are exceptionally mainstream. Individuals need simple cycle for utilizing any application.

2.2 Related Works

There are many kinds of learning management systems available online. However, our management system is focused on building up communication between students and teachers or parents and teachers. In our country, educational institutions use many types of management systems. There is only a focus on academic activities. We have facilitated the management of academy activities and placed special emphasis on communication.

And one of the advantages of this is that Institute can use the **Edu Manager** only by online registering.

Some related working sites are discussed below:

2.2.1 FeKara

FeKara, much the same as School Time, is an inside and out school administrator force to be reckoned with, inasmuch as you are running an activity with 50 understudies or less [2].

Advantages:

FeKara is a spotless and current school organization and the executives programming choice

Which covers everything from tests and tasks to planning and inner informing for all staff. FeKara even incorporates a portable application which can deal with all tablets and cell phones for helpful in a hurry use.

Disadvantages:

Like School Time, FeKara is restricted by the measure of understudies, transfer speed, and capacity which can be overseen on the free form of its product. A $10 every month move up to premium gives you further choices, including per understudy valuing model, expanded transmission capacity, and extra information stockpiling with the entirety of the recently referenced highlights.

2.2.2 School Time

In the event that you are a littler school, for example, a private rudimentary or preschool with 50 understudies or less, the free form of School Time might be exactly what you are searching for [4].

Advantages:

No budgetary commitments or Visas are required for the free form of the program and it never lapses. Highlights incorporate board the executives, reviewing frameworks, library information bases, test the board, transportation, participation, and even quarters the executives.

Disadvantages:

The most evident burden would need to be the breaking point on the measure of understudies that can be represented in the free form of School Time. Obviously this issue can be fathomed by moving up to the not really free forms of School Time, however doing so would nullify the "free and open source" arrangement you were searching for. In this way, as long as your school falls at or under 50 understudies, School Time can be a fit for you.

2.2.3 Fedena

Is an open-source school organization programming that generally centers around dealing with records [5].

Advantages:

Fedena offers boundless organization and understudy logins to utilize their framework, alongside boundless courses and groups. The framework was created utilizing Ruby on Rails, so schools can undoubtedly modify the code to their school's needs. The framework incorporates HR, a schedule, budgetary administration, assessment the board, and understudy/parent logins.

Disadvantages:

Fedena is the free form of another school organization programming of a similar name. When contrasting the free form with the paid rendition, it turns out to be certain that the open-source variant is inadequate in various highlights, including stock, custom reports, enrollment, and control.

2.2.4 Ascend SMS

Ascend SMS is a totally free full-program school organization programming made for Catholic and Independent schools. Ascend SMS gladly notes, Ascends SMS doesn't accept schools ought to need to address extravagant costs for something they generally need to make their school work [6].

Advantages:

Ascend SMS offers a total bundle. From offering a wellbeing the executive's framework for the school medical caretaker to a versatile application for guardians to a basic control announcing framework, Ascend SMS offers more than many paid school organization programming alternatives. Managers will be especially pulled in to their hefty revealing component, which rapidly gives data on ACR, school essentialness, understudy execution, and that's only the tip of the iceberg.

Disadvantages:

Ascend SMS is just allowed to Catholic and Independent schools. Ascend SMS additionally restricts the quantity of schools that it adds to its framework every year.

Features	Edu Manager	Fekara	School Time	Fedena	Ascend SMS
Support Large System	√	X	X	√	X
Support Mobile working	√	√	√	X	√
Cover Every thing	√	√	X	X	X
Free Version	√	√	√	√	√
Communication system	√	X	X	X	X

Table2.2: Comparison between related Works.

As shown in (Table 2.2), the EMS system will be free and it will uphold portable working by utilizing bootstrap system that make the site responsive with all gadgets that will assist the clients with getting to the site from anyplace and whenever, and it will have a free form to attempt all highlights that the EMS are given.

2.3 Comparative Studies

Many software companies in our country provide learning management systems software and these management systems are used by many institutions in our country but usually not all educational institutions can use learning management systems. The main reason is that these learning management system software's are much more expensive.

But with this application, the user can only use the Edu Manager in a sub domain under registration.

The system key is not in any other learning management system so our system is completely unique. Other management systems have worked on academic activities but not on communication build up. We have been working here on academic activities as well as communication between students and teachers.

2.4 Scope of the Problem

We have faced a lot of problems while working on what to do with the Edu Manager system. Visit us and get ideas on how the educational institutions of our country manage their management or how they manage their activities. Decide which activities we will keep and which are more important. We've had a lot of bugs when we started developing the system, and we've had a lot of trouble solving them.

2.5 Challenges

We have experienced numerous issues while finishing the venture. We attempt our best to defeat from those issues. So initially we figure what we can include this undertaking. For this venture we need to figure out how to make highlights and utilize that in our undertaking. I have seen many learning management systems online that usually deal with academic activities in the backyard but no work is done for communication builders between students and teachers or between guardians and teachers.

So we took up the challenge of creating an Edu Manager with this idea.

CHAPTER-03

REQUEREMENT SPECIFICATION

3.1 Business Process Modeling

This project contains the model for "**Edu Manager: A learning management system**" This model help to understand whole project work. The entire work process of framework is speaking to by business process model (BPM). The principle normal for the procedure is speaking to "flow diagram''. A business process model is graphically documentation to the capacity of understanding their inside business system. The graphical documentation will guarantee the business technique coordinated efforts between various associations. BPM are speaking to entire method of business right away, that are effective of business satchels.

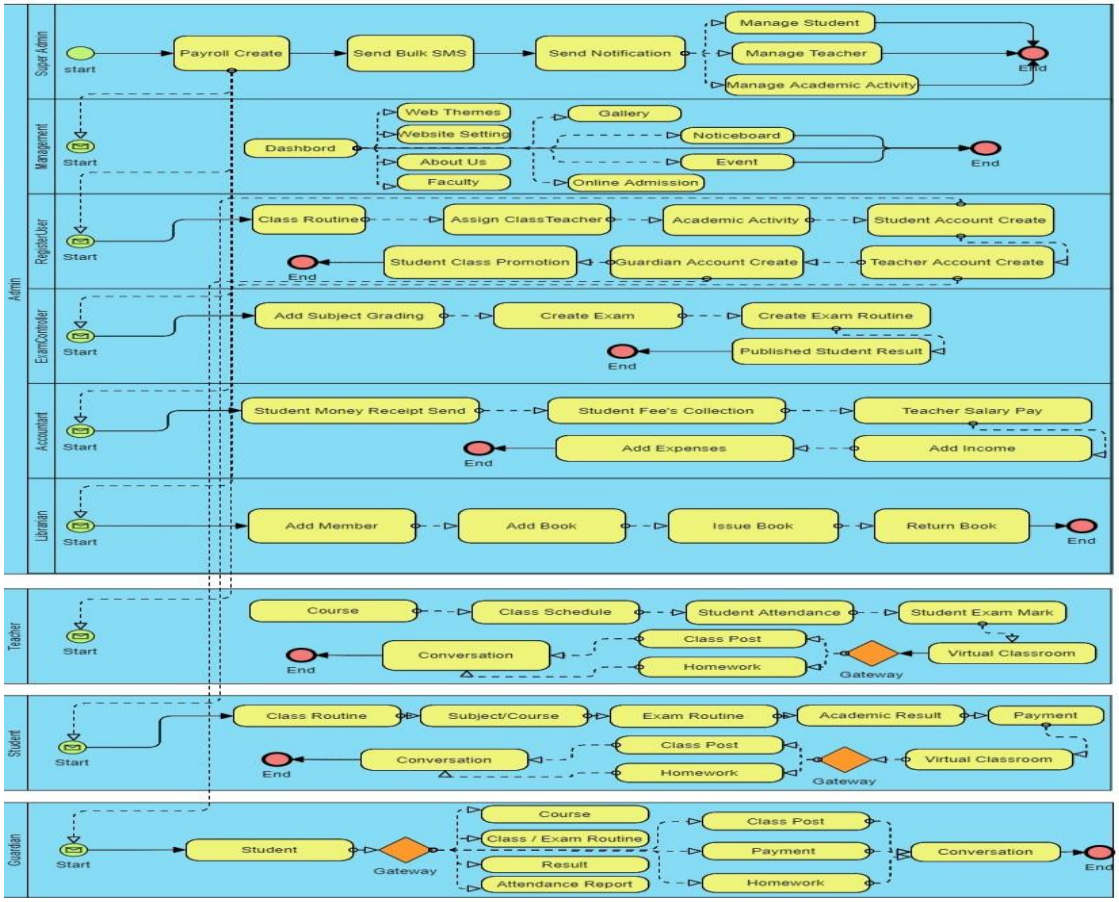


Fig 3.1: Business Process Model

3.2 Requirement Collection and Analysis

This project has many sort of requirement. Distinguishing the best requirement is significant. As indicated by client request there are numerous sort of requirement. We have gathered client requirement bit by bit and we additionally assemble parcel of data from different recovery community and numerous site. We profoundly examination part of requirement and data. We deal with our project dependent on this requirement and data. Just the creation would be adequate to give a superior exhibition.

3.2.1 Resources Used To Develop and Improve the System

It is critical to distinguish the requirements required for the project and to structure the modules so that all the requests are met. Some planning advances are fundamental need. A few stages require a careful examination of the fundamental needs. It will expect for the fulfillment of the client and the issues will be experienced. At exactly that point the creation would be adequate to give a superior exhibition.

3.2.2 Resources Used To Develop and Improve the System

For create or improve any sort of project at that point it ought to be work part by part. One section improve then should take improve or build up another part. In the wake of doing this gathered the asset are the most significant part. For making this project we should require XAMPP, MySQL, PHP Storm, a windows pc and internet browser. We are making Learning Management system that is uses teacher, student and guardian which can utilize mobile device and internet browser.

3.3 Use Case Modeling and Description

A used case diagram is additionally called bound together displaying language that are speak to framework activity in graphically. Each action is show in this sort diagram we can get information the entire action of entertainer. A utilization case shows and plan the rundown of activity, job and movement of client and authority in a brief timeframe. Being used case diagram entertainers are assume the primary part of various activities and a utilization case diagram has numerous sorts of entertainer each entertainer is play various activities. Situations of utilization or framework interfaces with individuals, establishment or association.

A utilization case diagram didn't clarify entire technique unmistakably however you

accomplish tremendous information for this sort of diagram. It plainly proposal the entire cycle of your entertainer action. Presently we show the all utilization case diagram of our application. The use case model of this project is show in the follow:

3.3.1 Admin

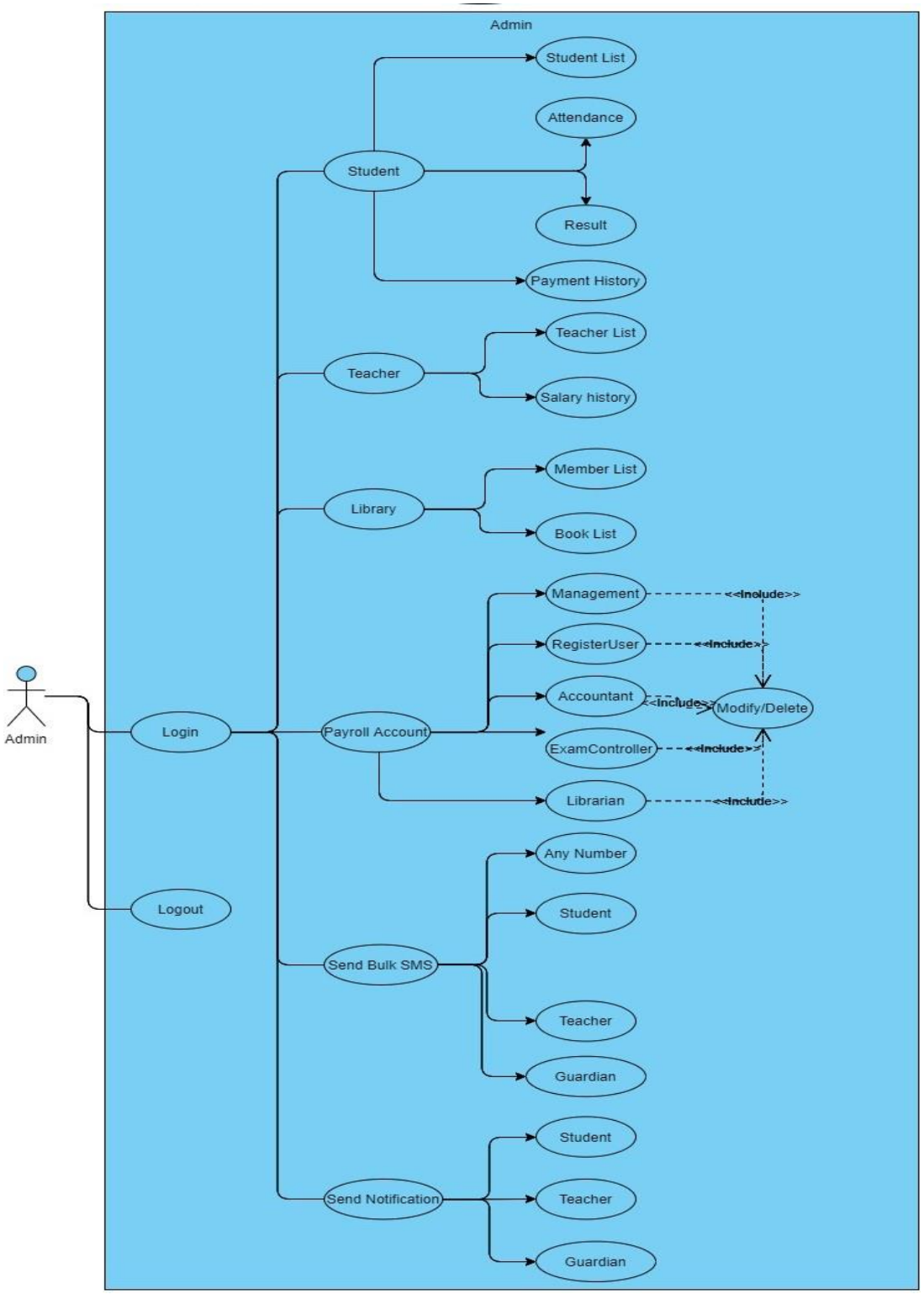


Fig 3.3.1: Use Case for Admin

3.3.2 Register Office

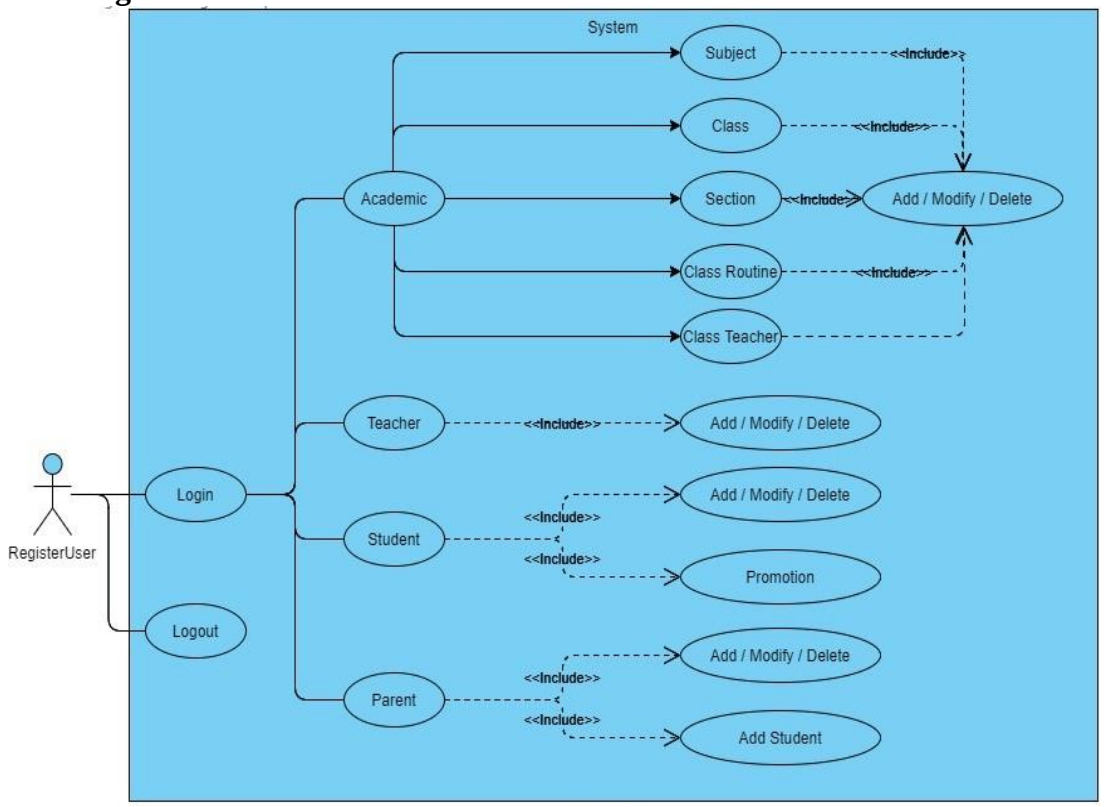


Fig 3.3.2: Use Case for Register Office

3.3.3 Exam Controller

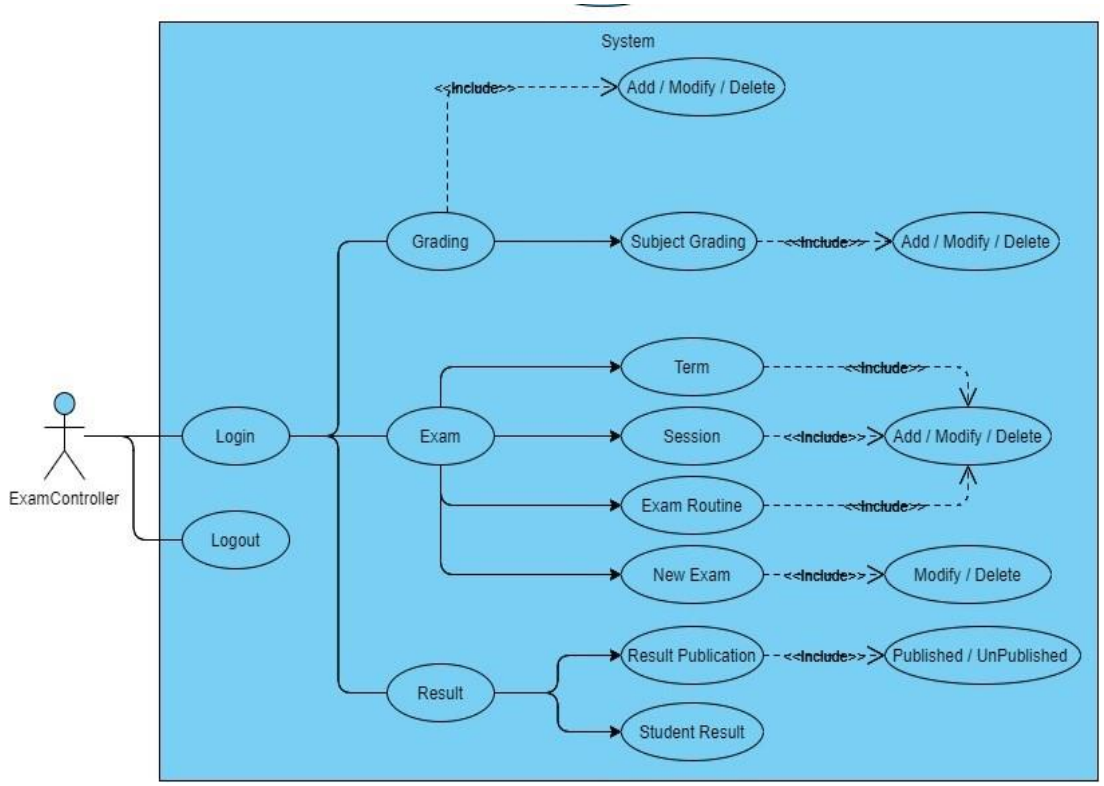


Fig 3.3.3: Use Case for Exam Controller

3.3.4 Librarian

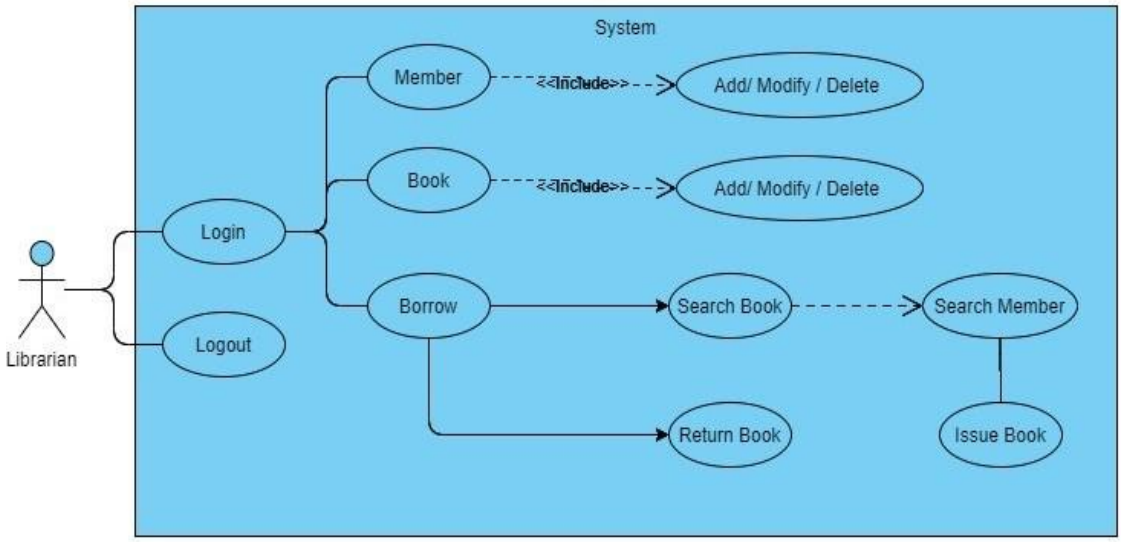


Fig 3.3.4: Use Case for Librarian

3.3.5 Accountant

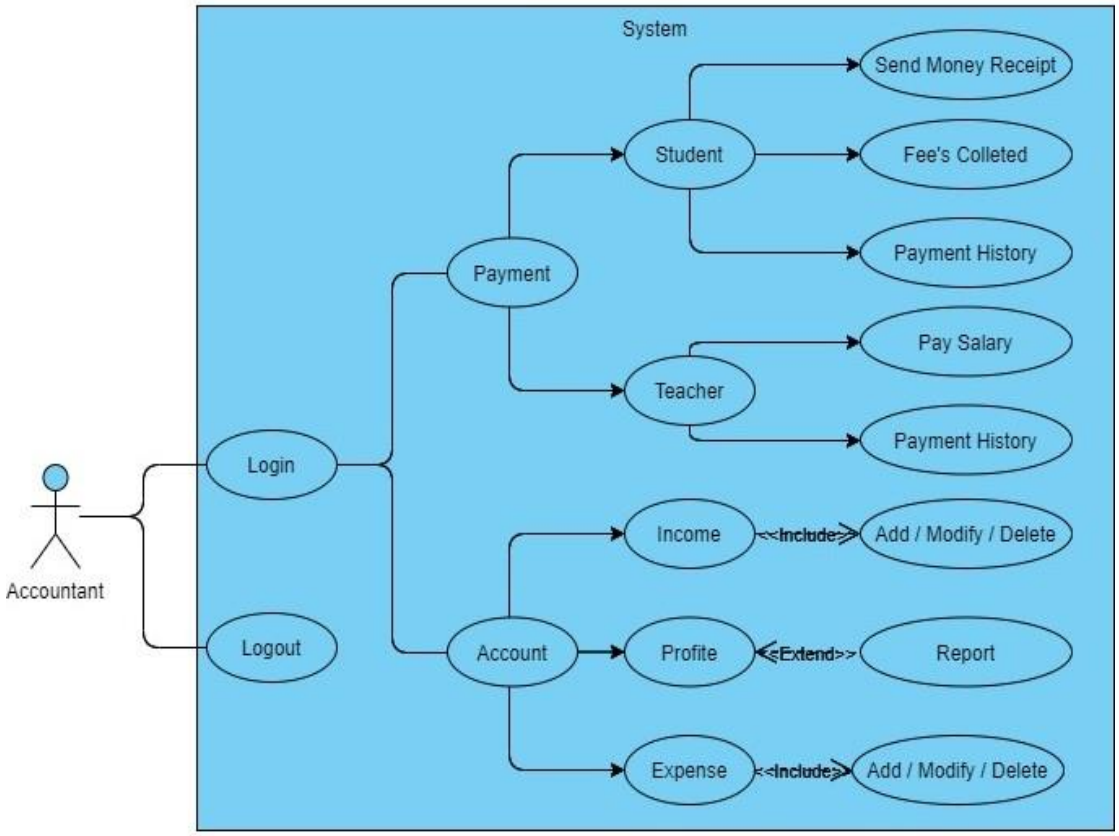


Fig 3.3.5: Use Case for Accountant

3.3.6 Management

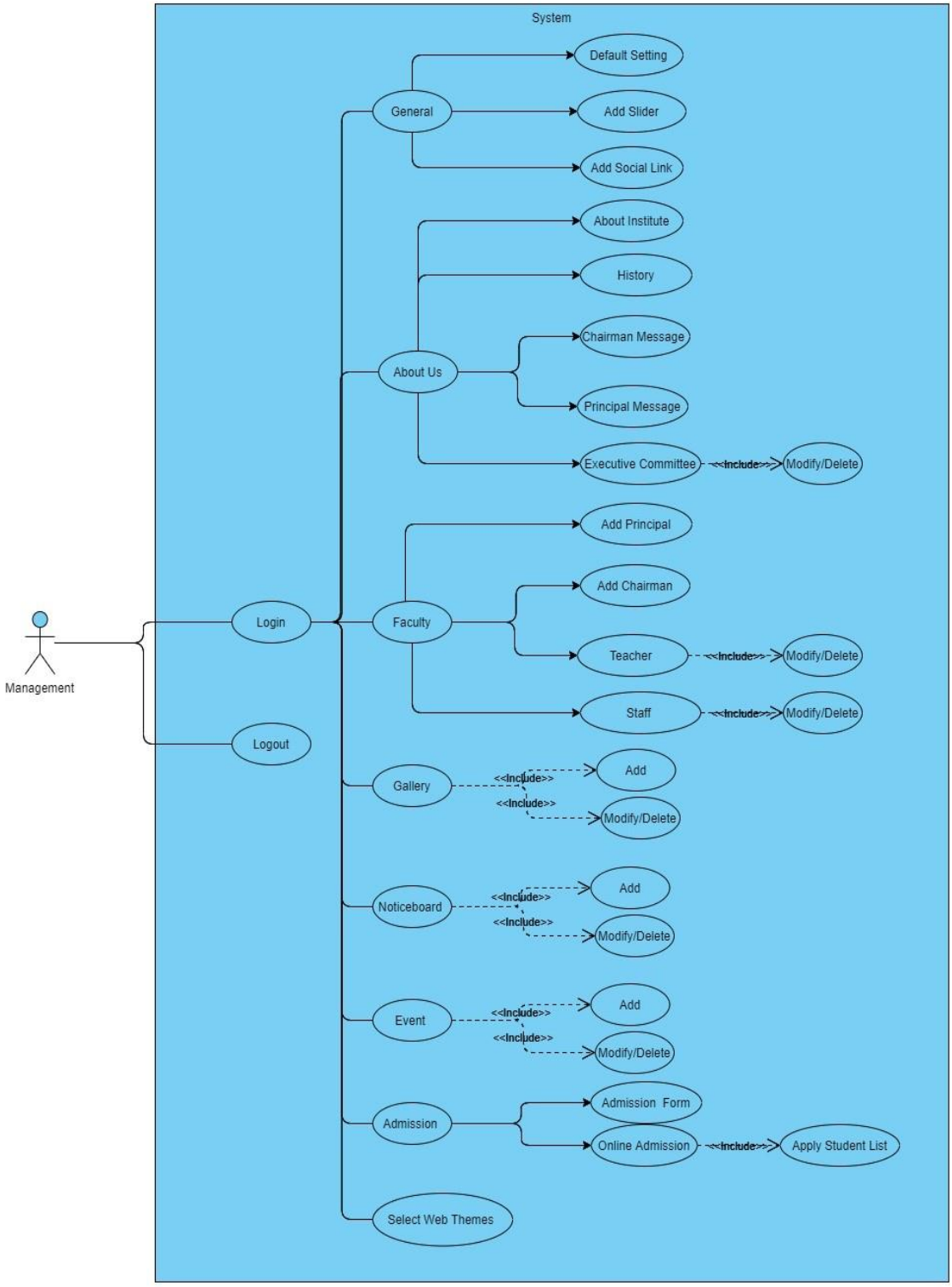


Fig 3.3.6: Use Case for Management

3.3.7 Teacher

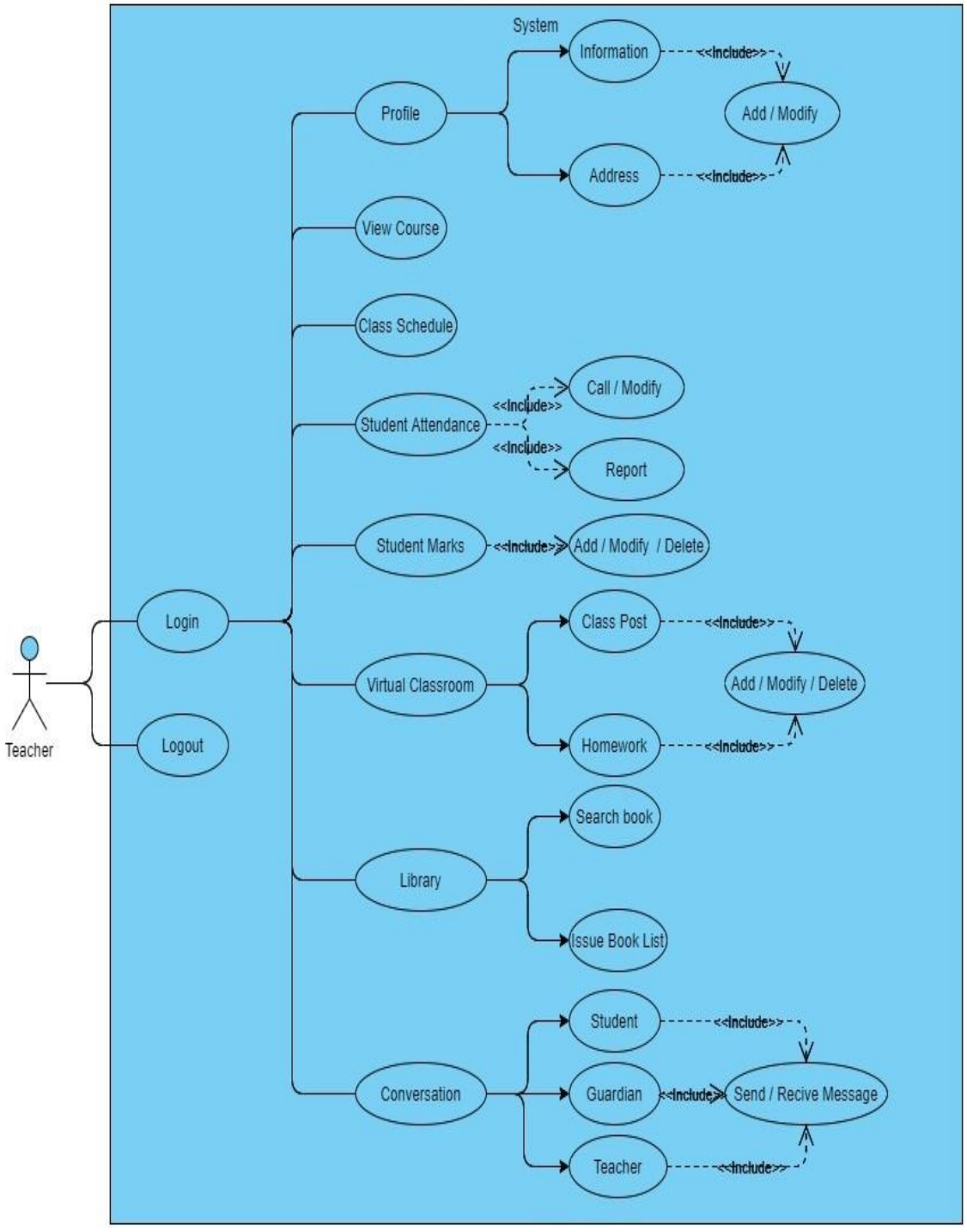


Fig 3.3.7: Use Case for Teacher

3.3.8 Student

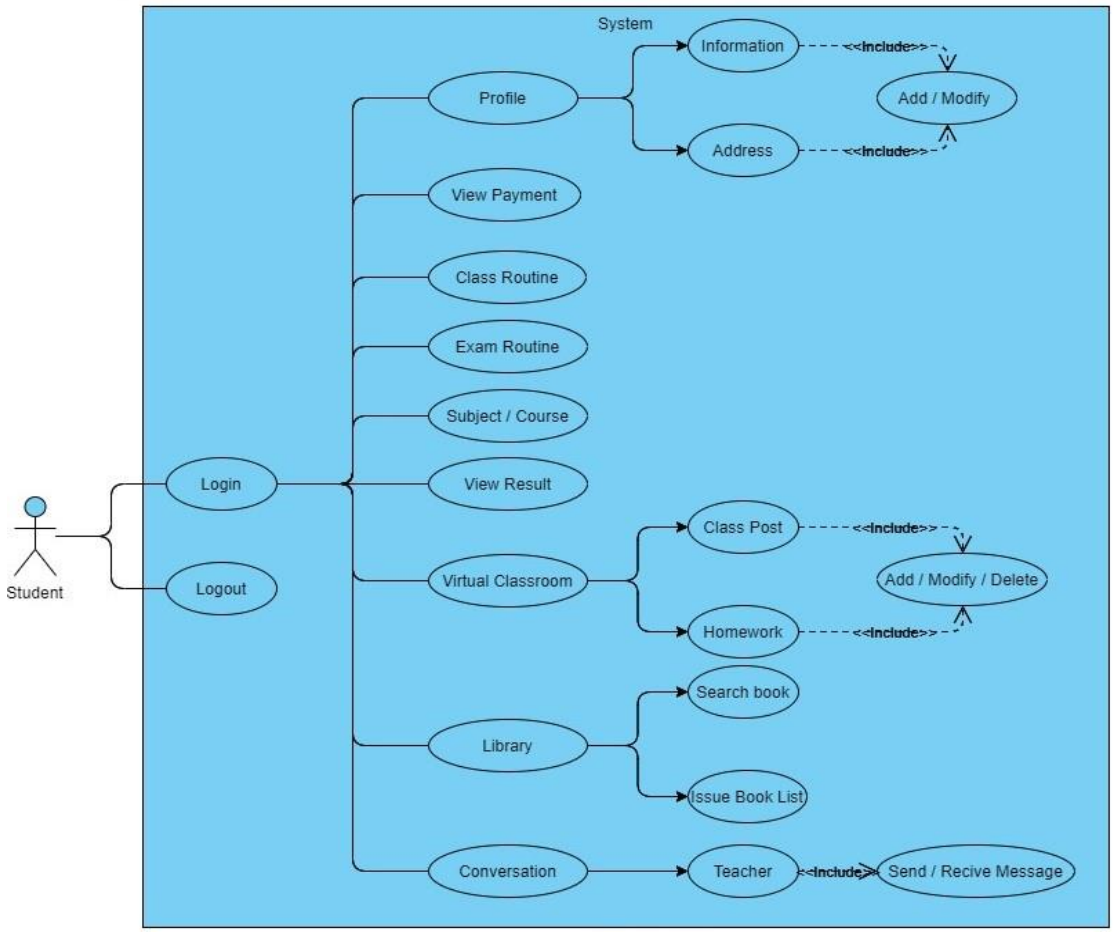


Fig 3.3.8: Use Case for Student

3.3.9 Guardian

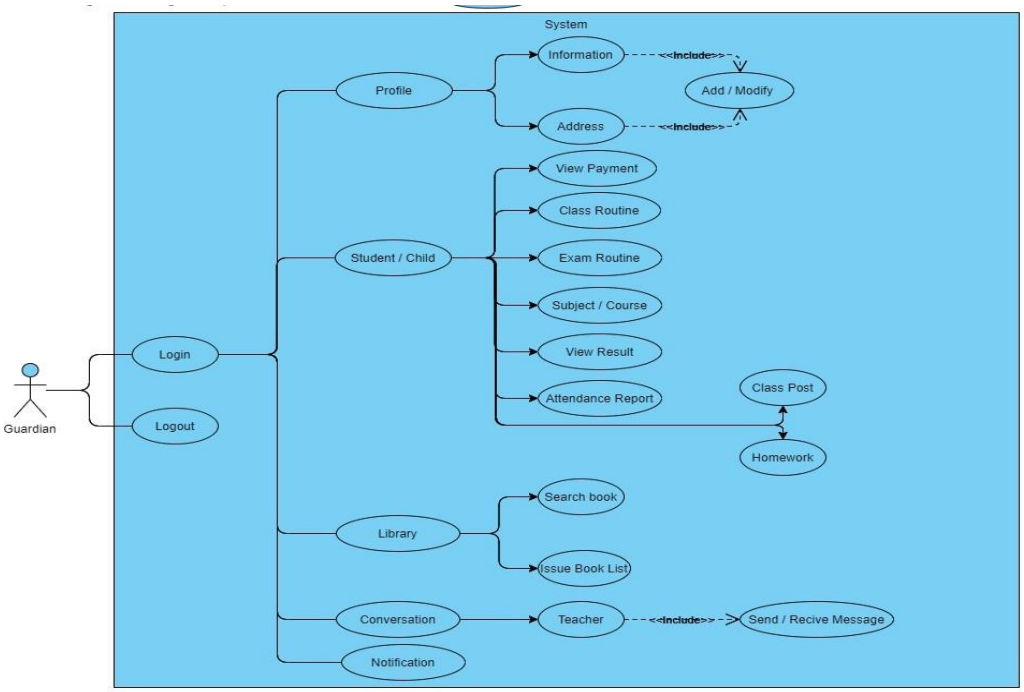


Fig 3.3.9: Use Case for Guardian

3.4 Data Flow Diagram / Logical Data Model

In this diagram user uses this app which has some user friendly features. In this app all information store in database.

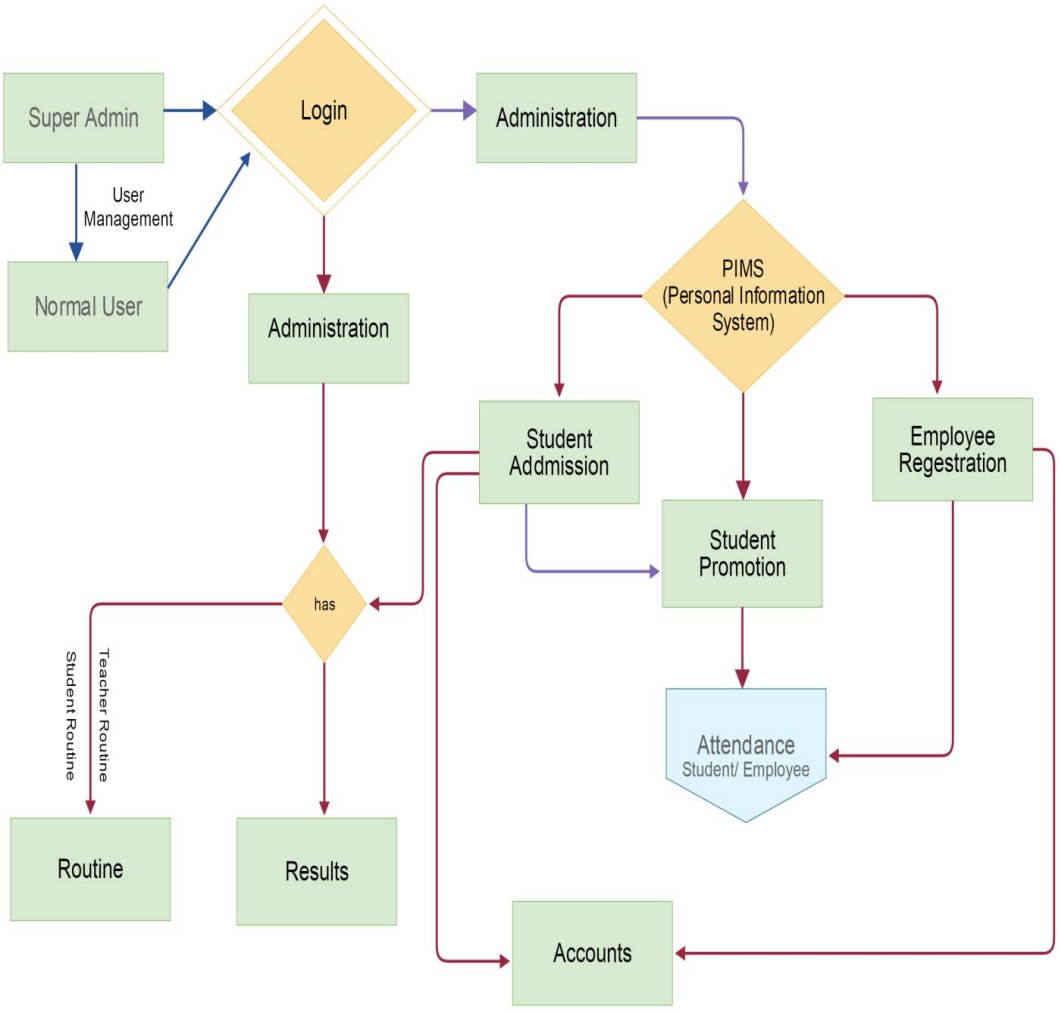


Fig 3.4: Data Flow Diagram

3.5 ER-Diagram

An Entity Relationship diagram is the piece of flowchart that are extensively portrays how to associate each other like as individuals and article. An Entity Relationship diagrams are greatest bit to use to draw a relationship diagram in programming designing, PC building, business, training proposition and exploration field. This field are anything but difficult to depict utilizing ER diagram. Individuals and understudy can without much of a stretch see entire framework in a couple of times. And furthermore known as ER or ERDs models utilized they can make a lot of images, for example, precious stone, ovals, square shape, associating lines together [5].

Data structure diagram (DSDs) are identified with Entity Relationship. Emergency room diagram are stream the plan of entire diagram of framework. Presently we can see this cycle, how to portray entire framework in ER diagram in our venture. Given beneath is the E_R diagram utilized in our Project.

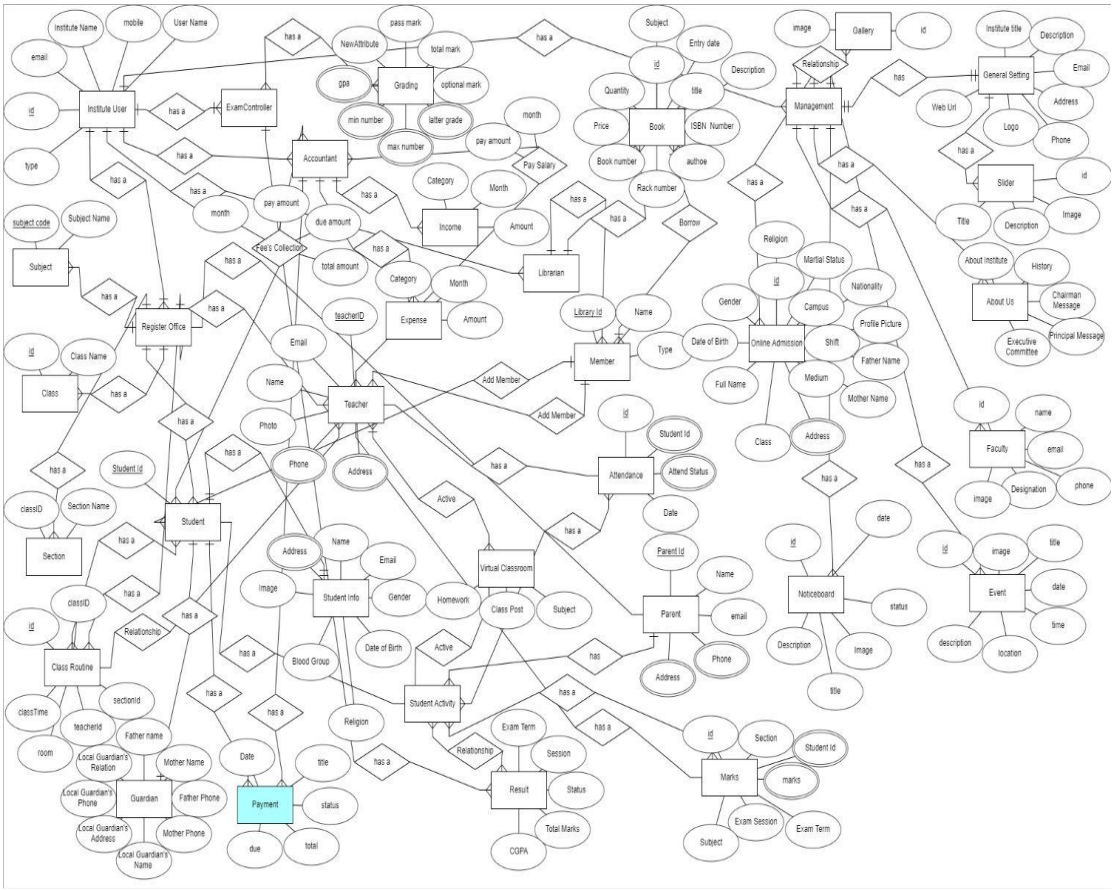


Fig 3.5: ER Diagram

3.6 Design Requirements

Design requirement for user:

- Admin Panel
- User Register Panel
- Exam Controller Panel
- Accountant Controller Panel
- Librarian Panel
- Teacher Panel
- Student Panel
- Guardian Panel
- Web Management Panel

CHAPTER-04

DESIGN SPECIFICATION

This chapter we will discuss all about front-end-design and back-end-design and interaction design and implementation requirement. Create the entire thing we use two different languages. We use HTML, CSS, and JavaScript for front-end-design and PHP, LARAVEL for backend design.

4.1 Front-End Design

Front-end part is the important part in any application which is visual to the user. When user connect back-end and also connect database then need front-end. We will part by part discuss initial front-end design.

4.1.1 Front-End Design for Admin

Admin will be able to control total management system and create user rules and give access permission to user.

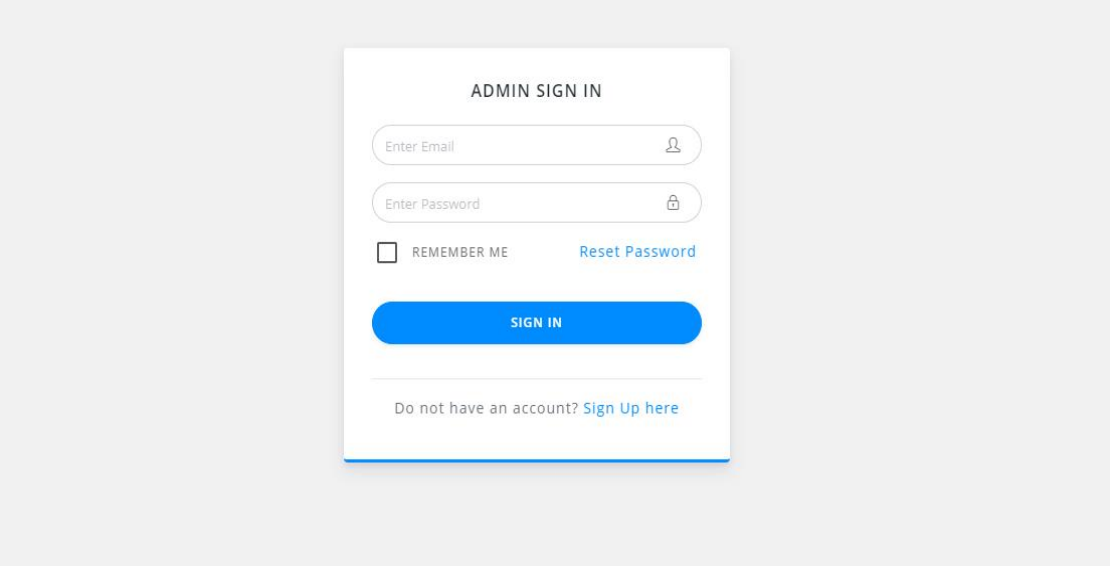


Fig 4.1.1A: Admin Login

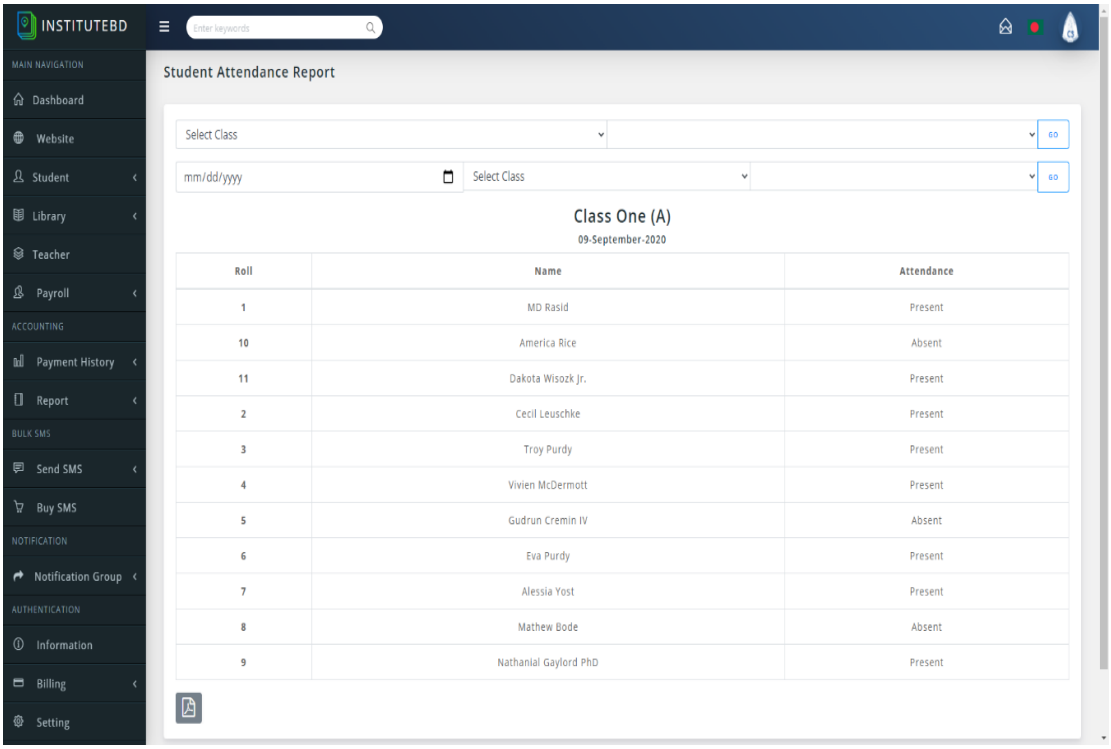


Fig 4.1.1B: Student Daily Attendance Report

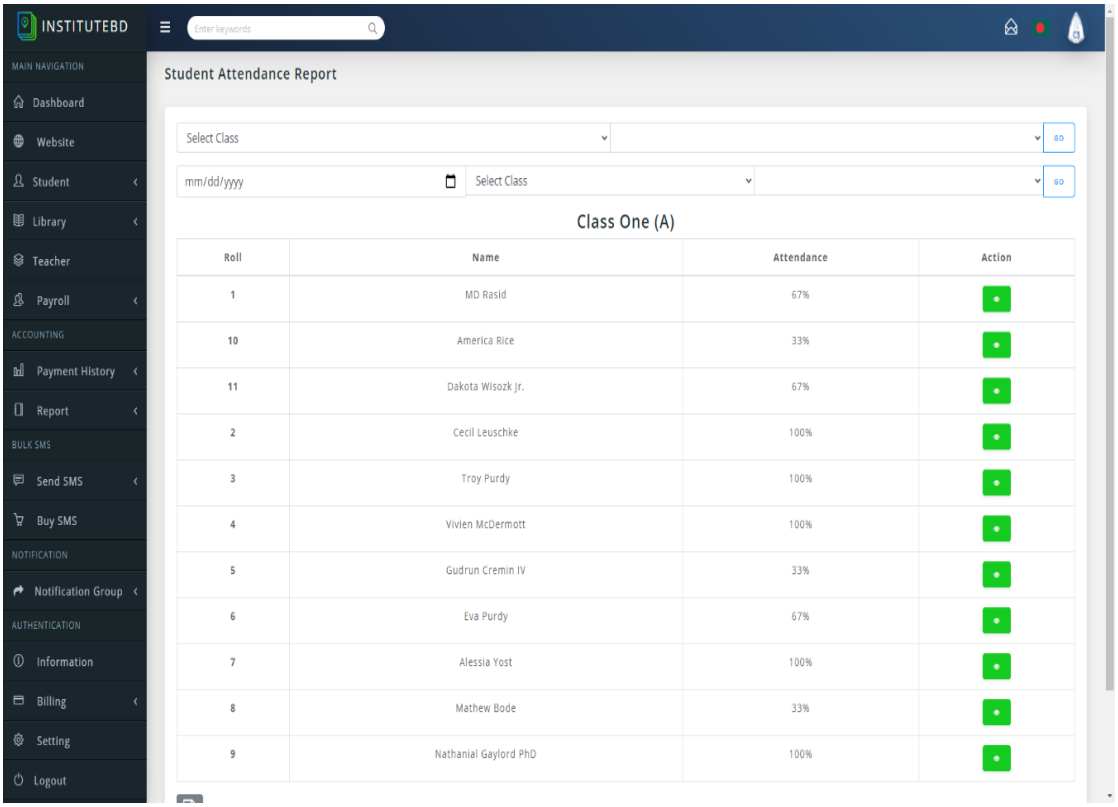


Fig 4.1.1C: Student Attendance Report

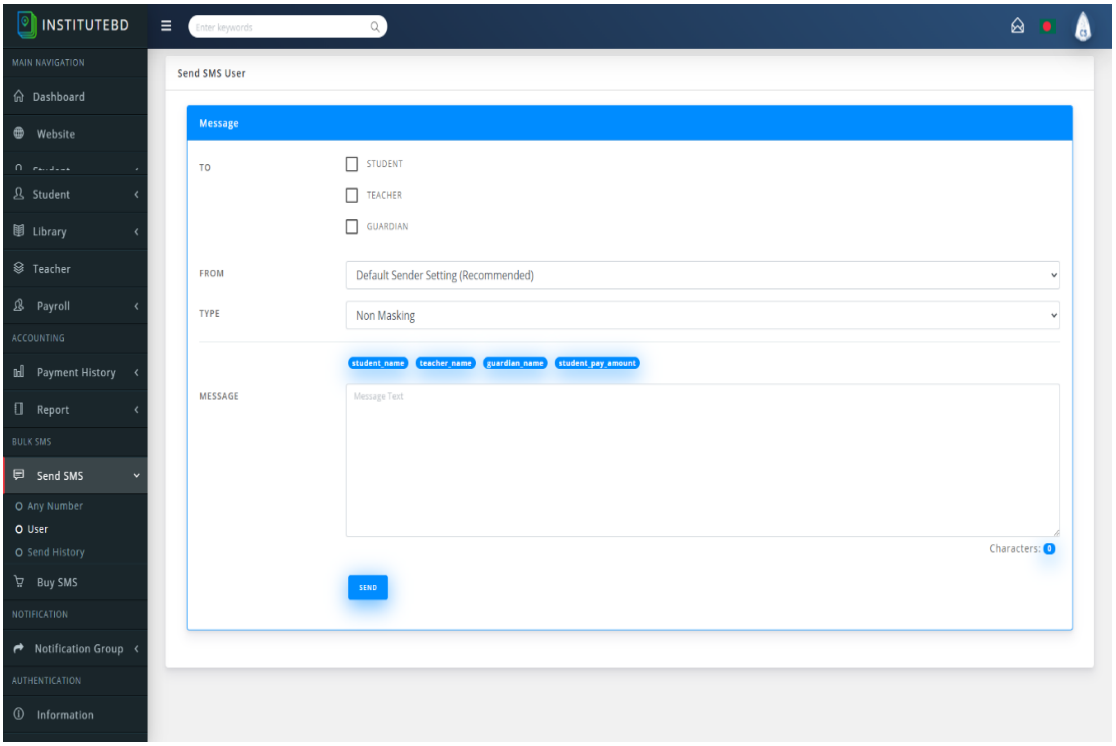


Fig 4.1.1D: Bulk SMS Send by Student, Teacher, Parents

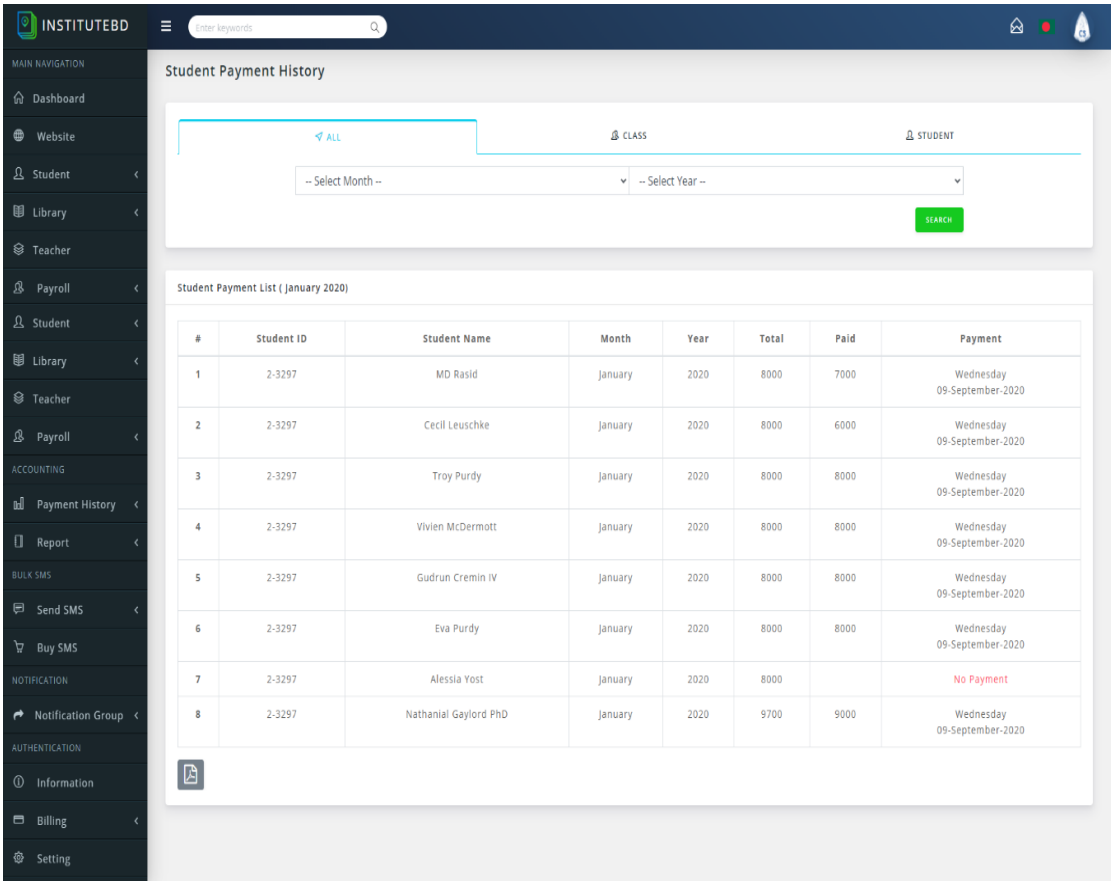


Fig 4.1.1E: Student Payment History

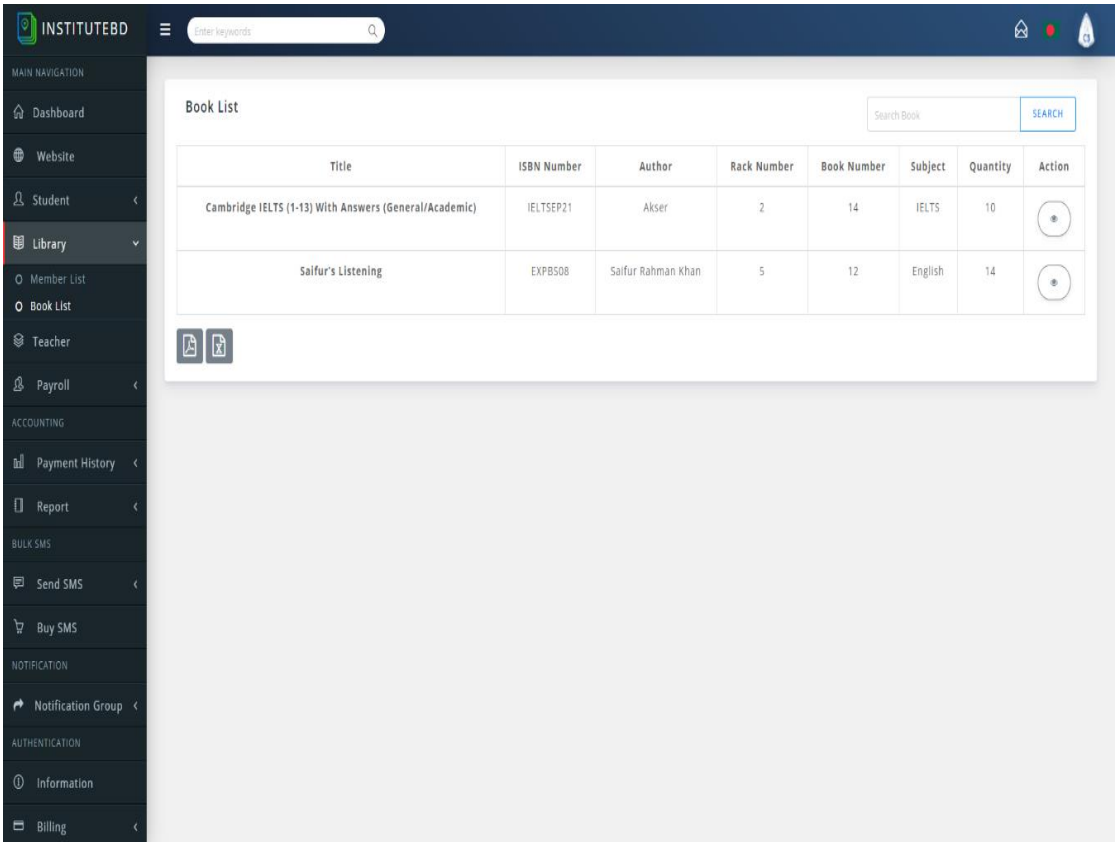


Fig 4.1.1F: Library Book List

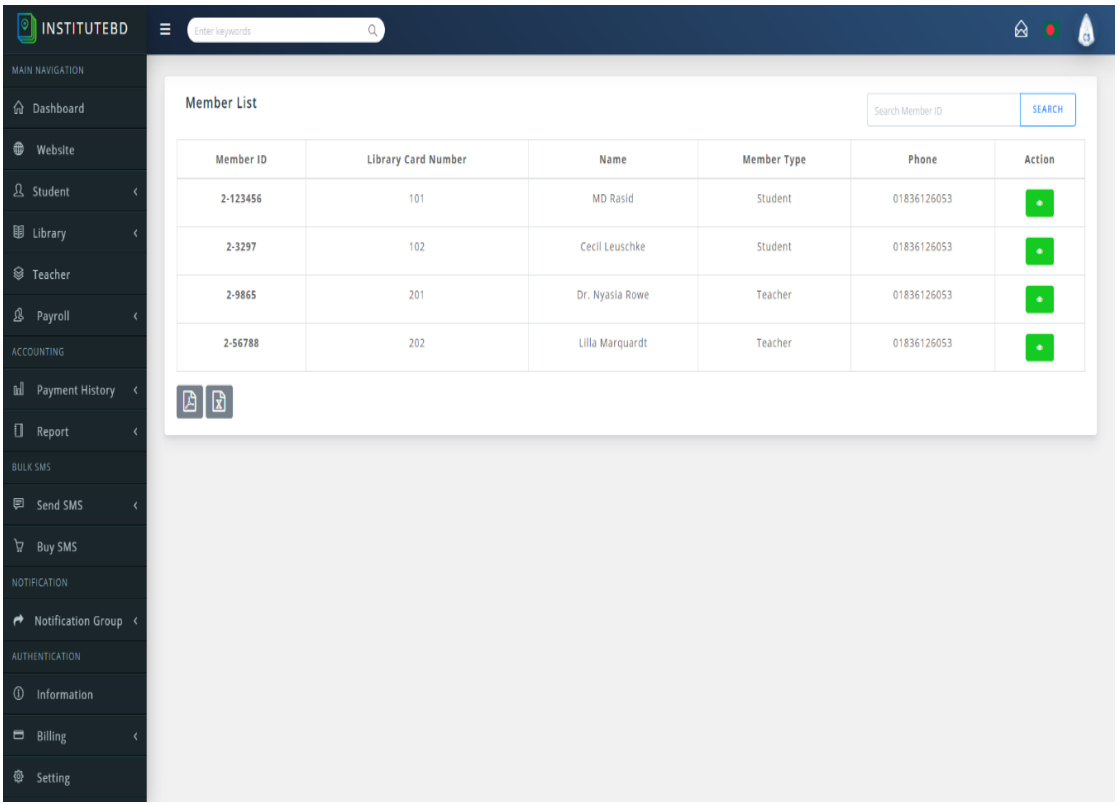


Fig 4.1.1G: Library Member List

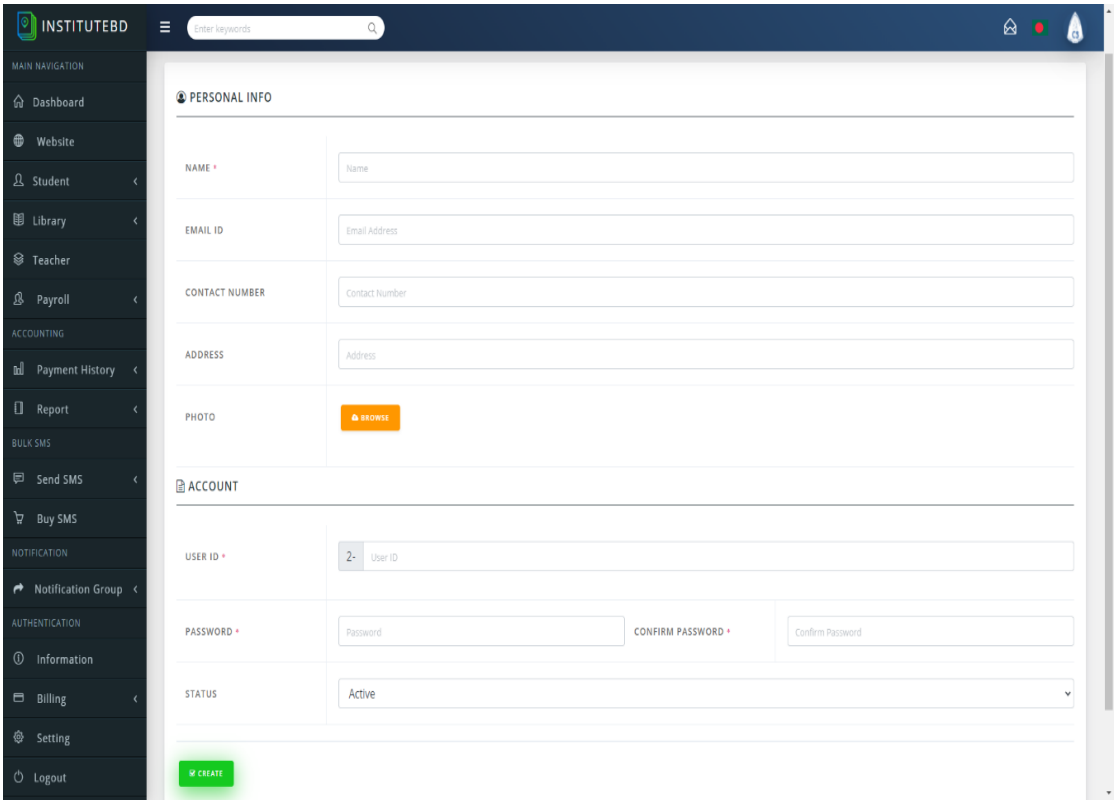


Fig 4.1.1H: Add User Payroll

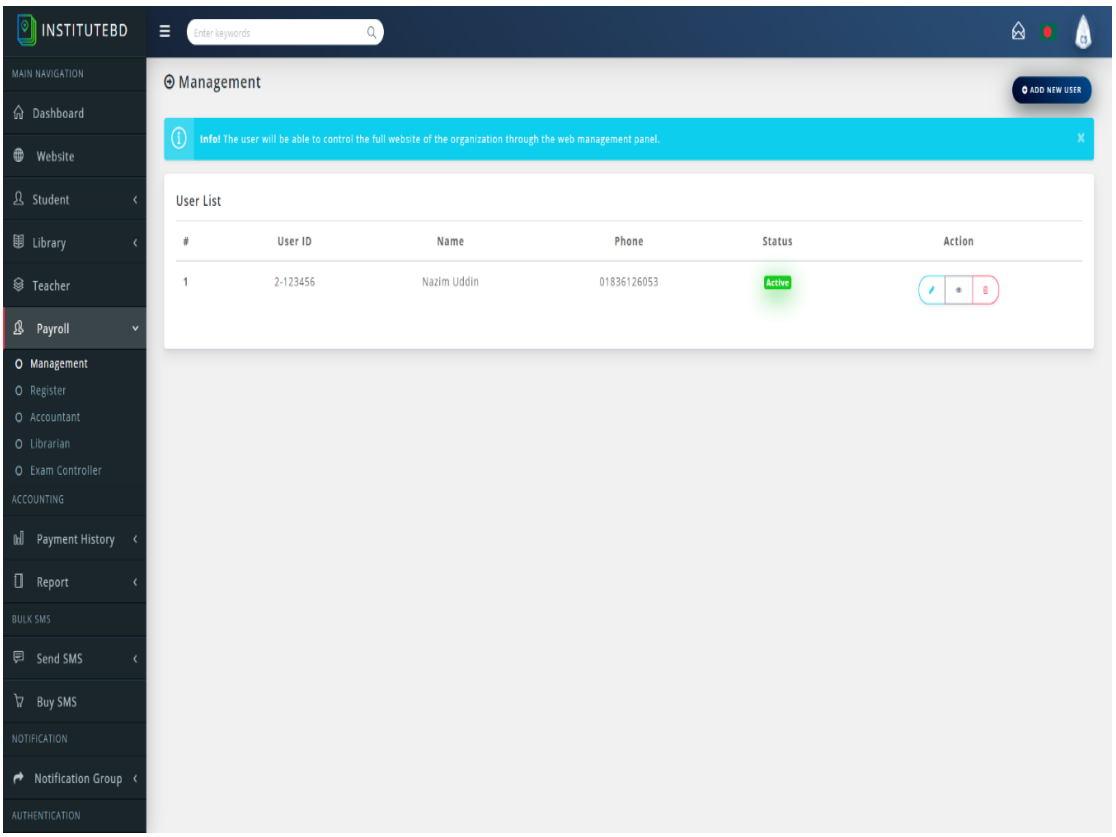


Fig 4.1.1I: User Payroll List

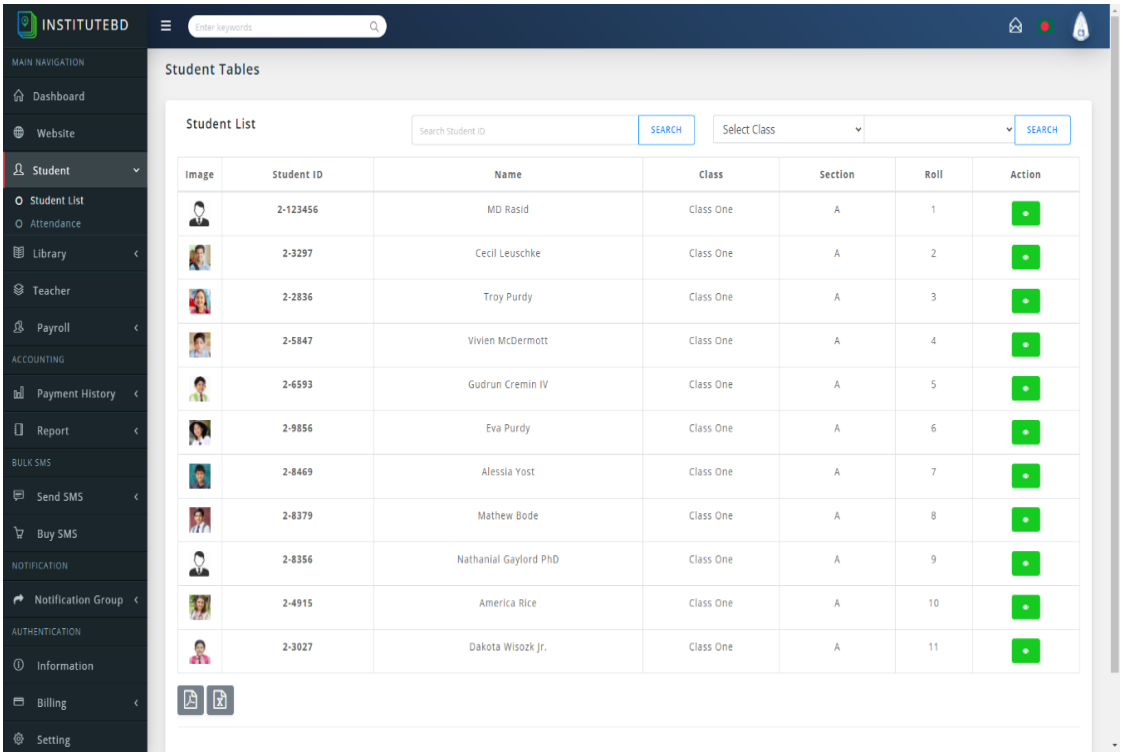


Fig 4.1.1J: Student List

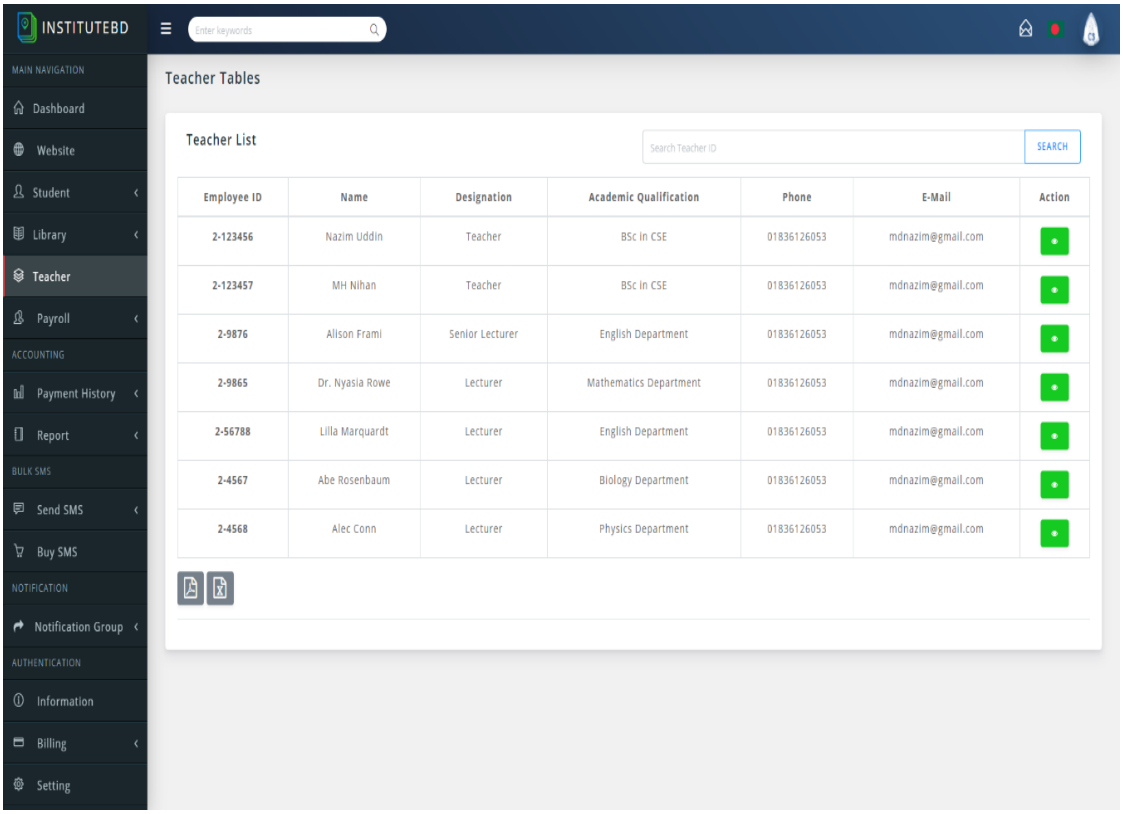


Fig 4.1.1K: Teacher List

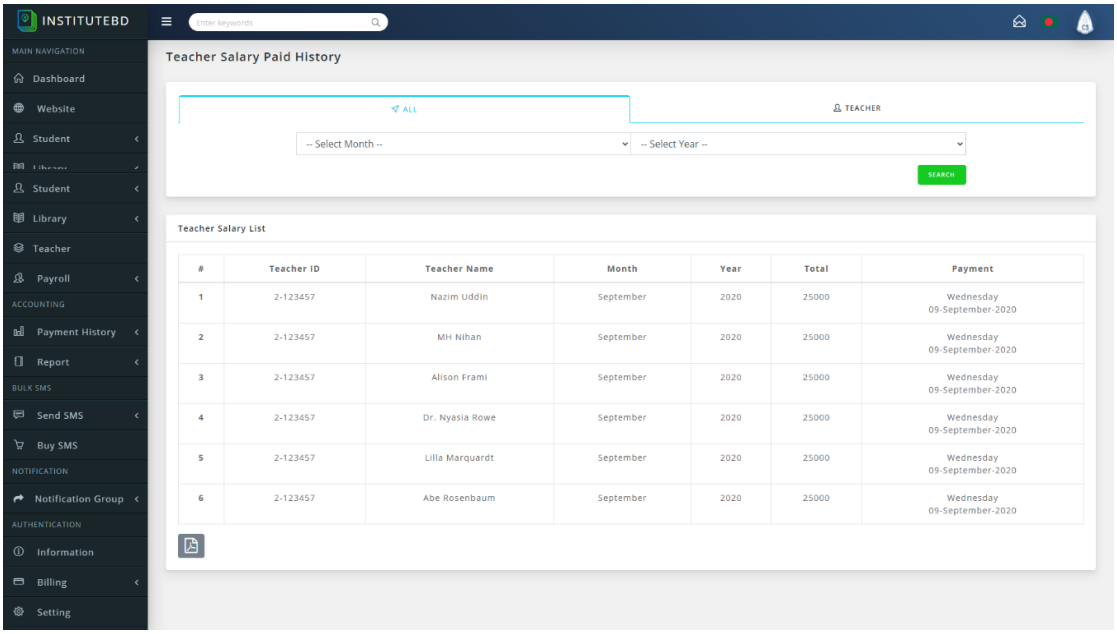


Fig 4.1.1L: Teacher Salary Paid History

4.1.1 Front-End Design for User Register Panel

The user will be able to create and manage the accounts of the teachers of the institution, the accounts of the students and the accounts of the parents through the register panel.

There is also dynamic subject creation, class creation, section creation, class time setting, determining which subjects will be in which class, deciding when and where the class will be, to determine it, which teacher will take which class and promoting students to new classes.

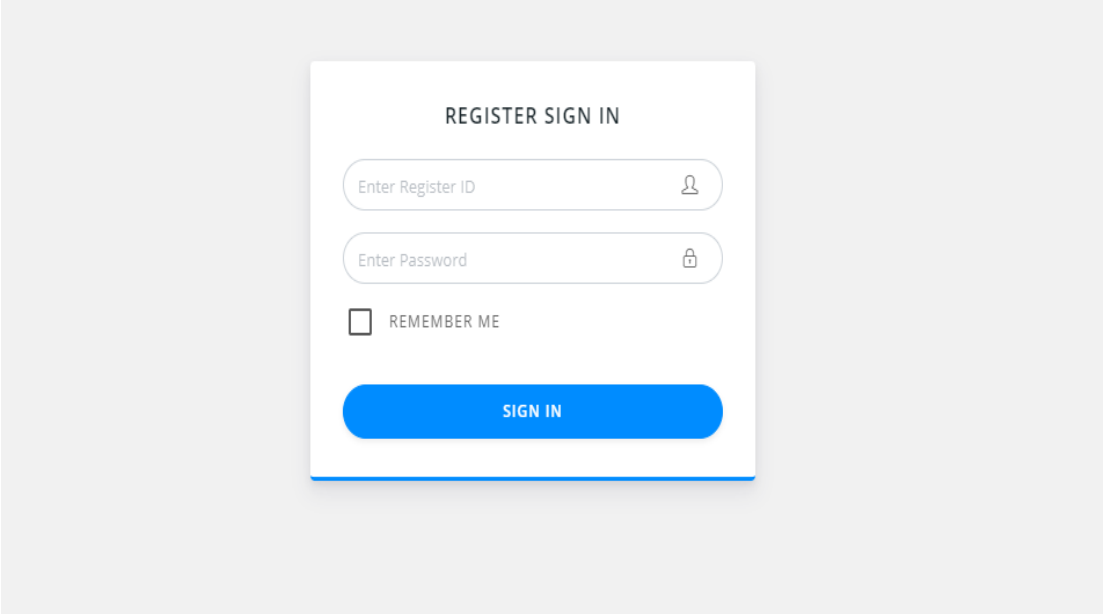


Fig 4.1.2A: User Register Login

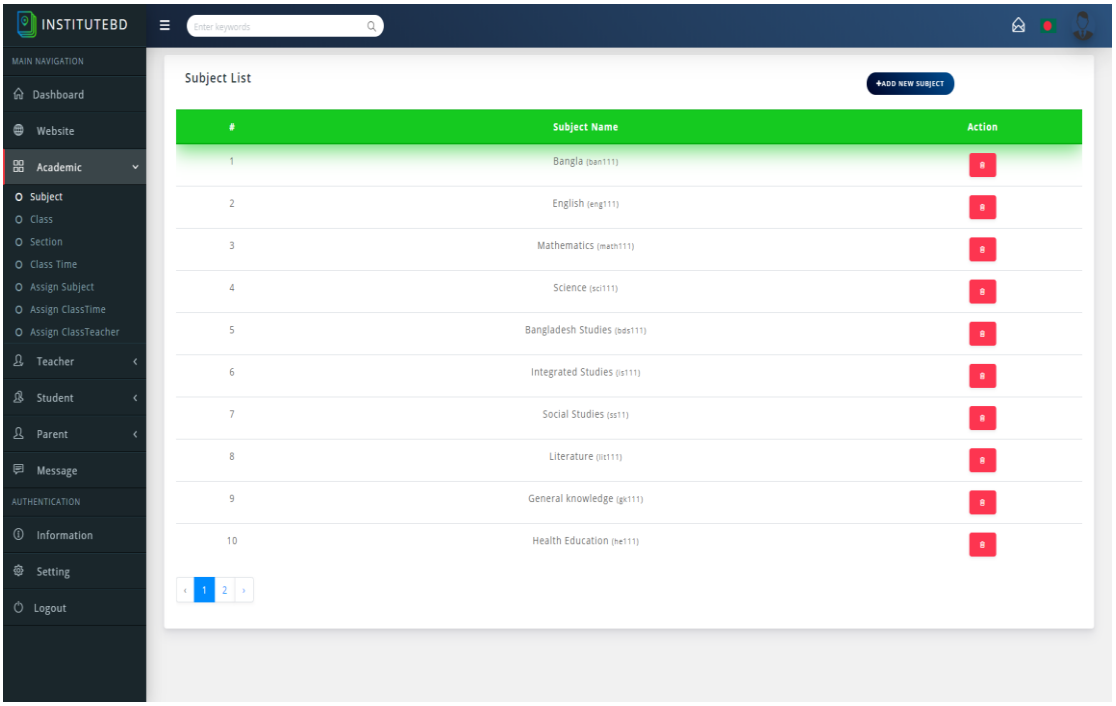


Fig 4.1.2B: Subject List

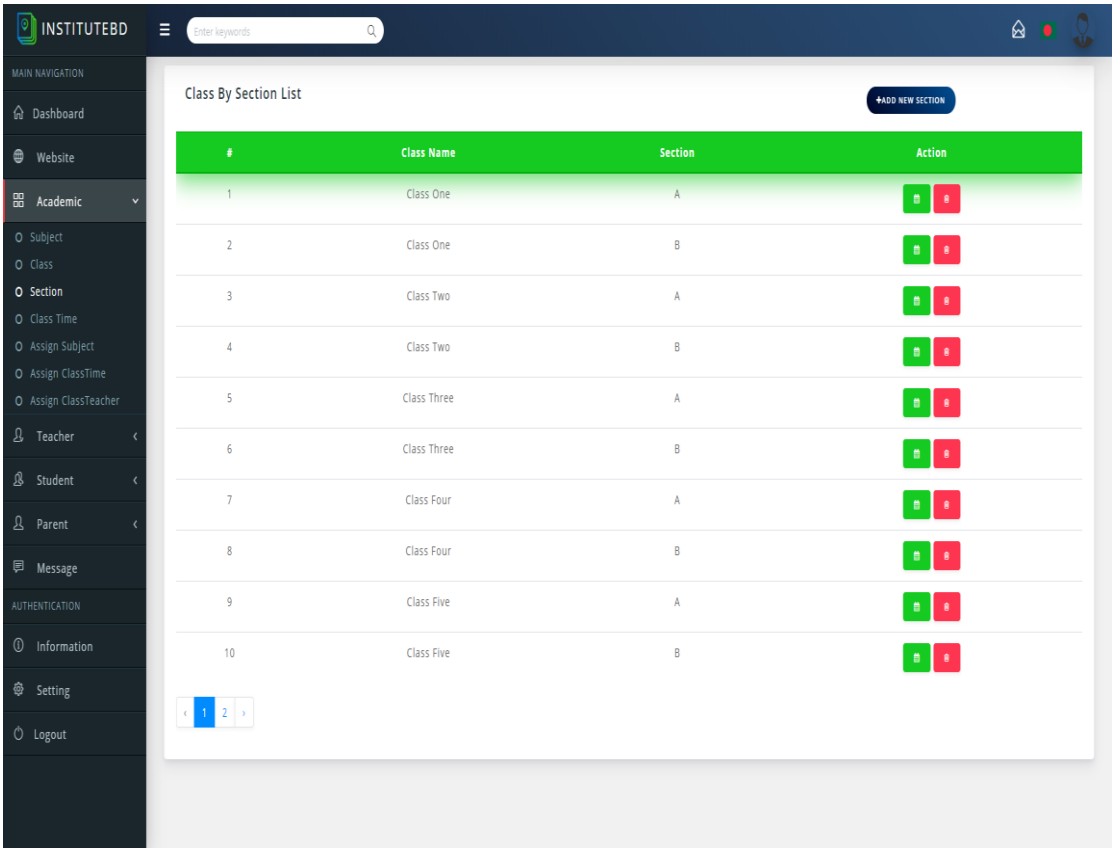


Fig 4.1.2C: Class by Section List

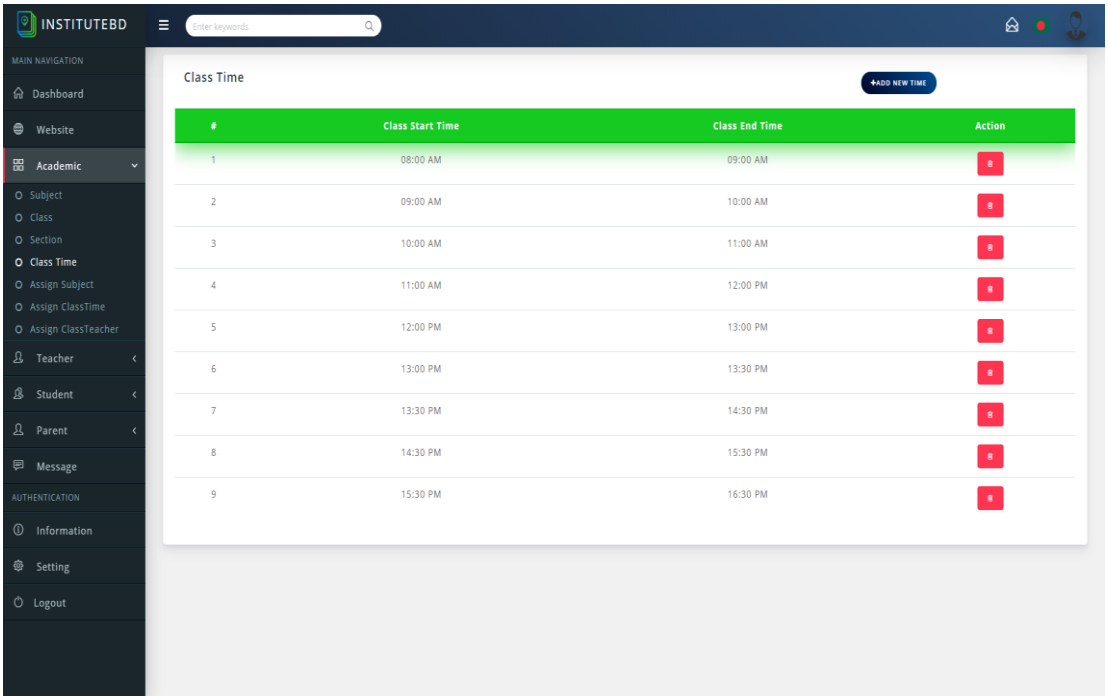


Fig 4.1.2D: Class Time

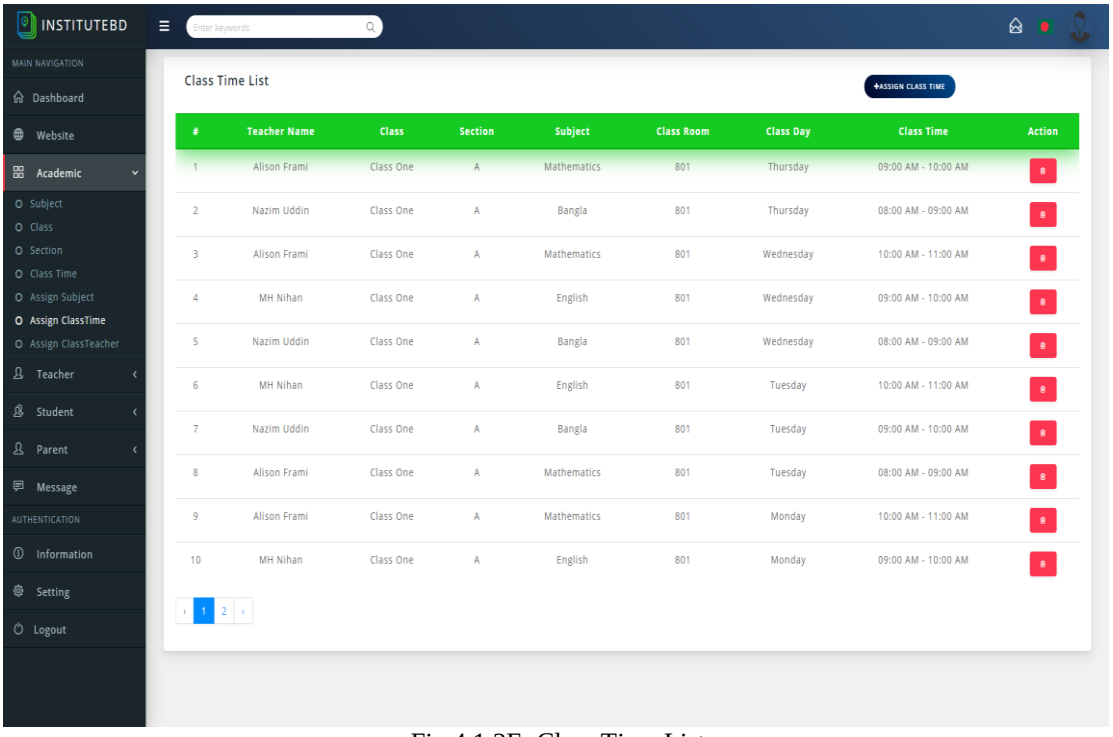


Fig 4.1.2E: Class Time List

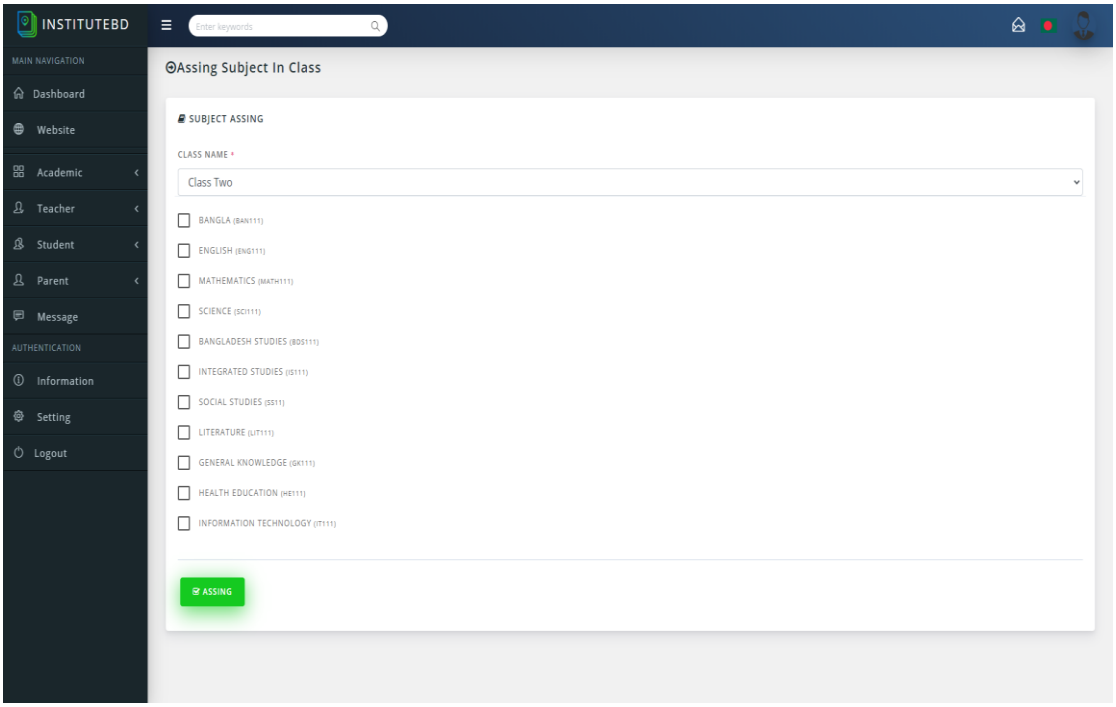


Fig 4.1.2F: Assign Subject in Class

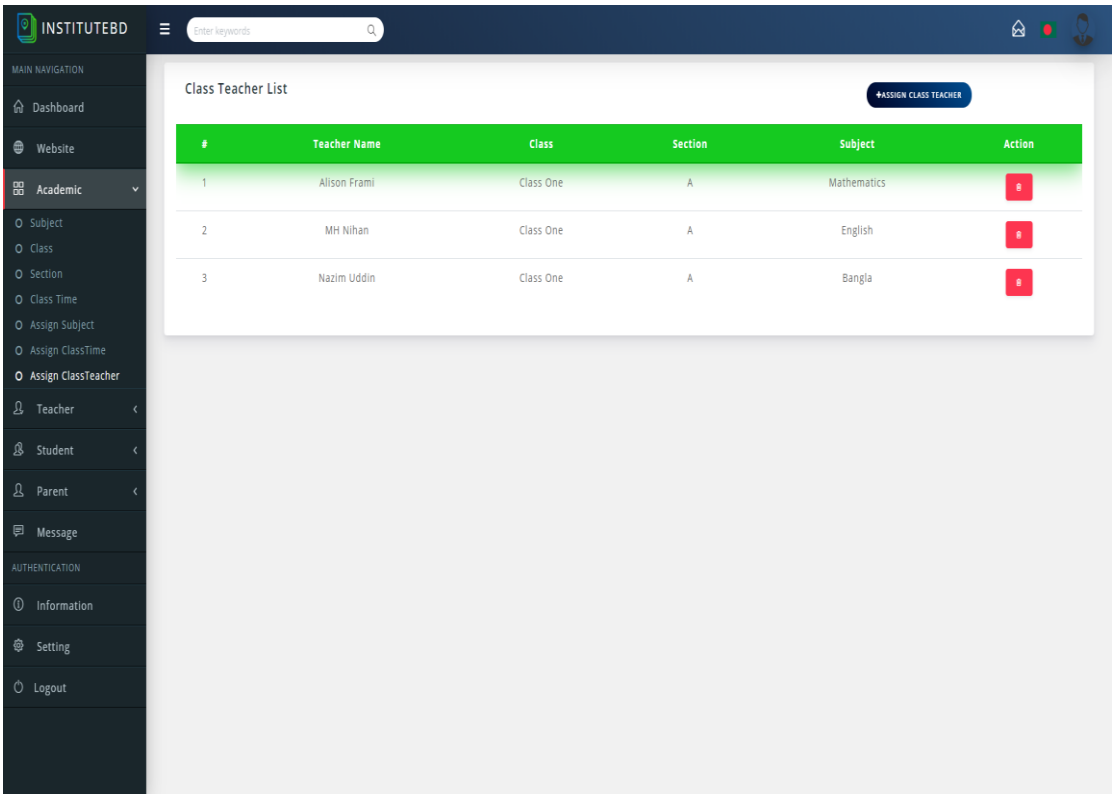


Fig 4.1.2G: Class Teacher List

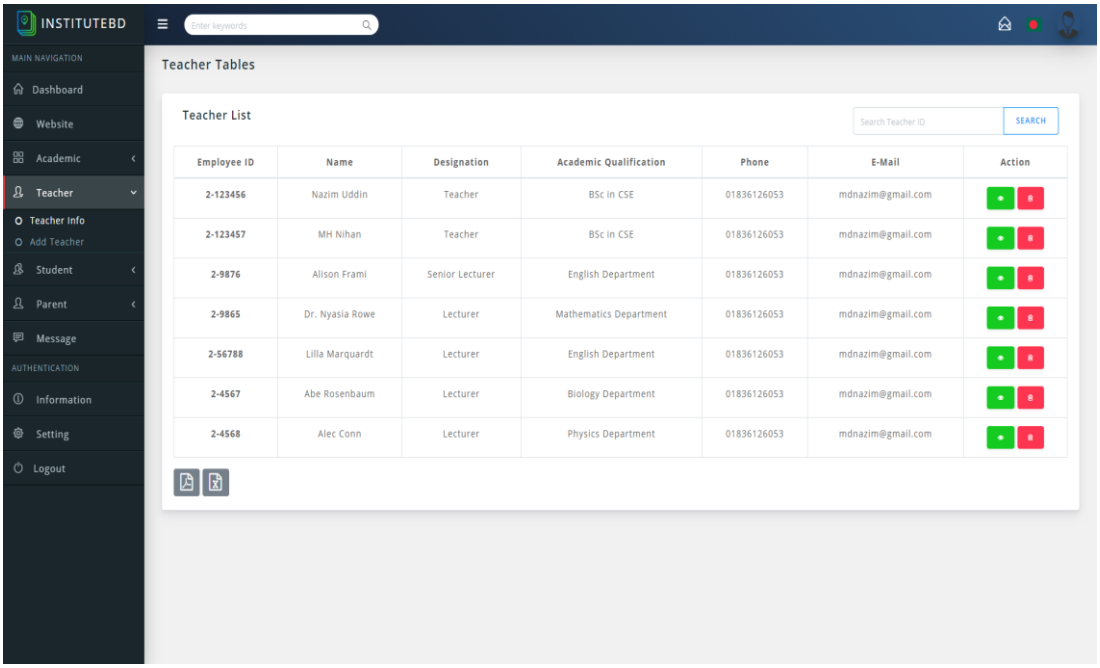


Fig 4.1.2H: Teacher List

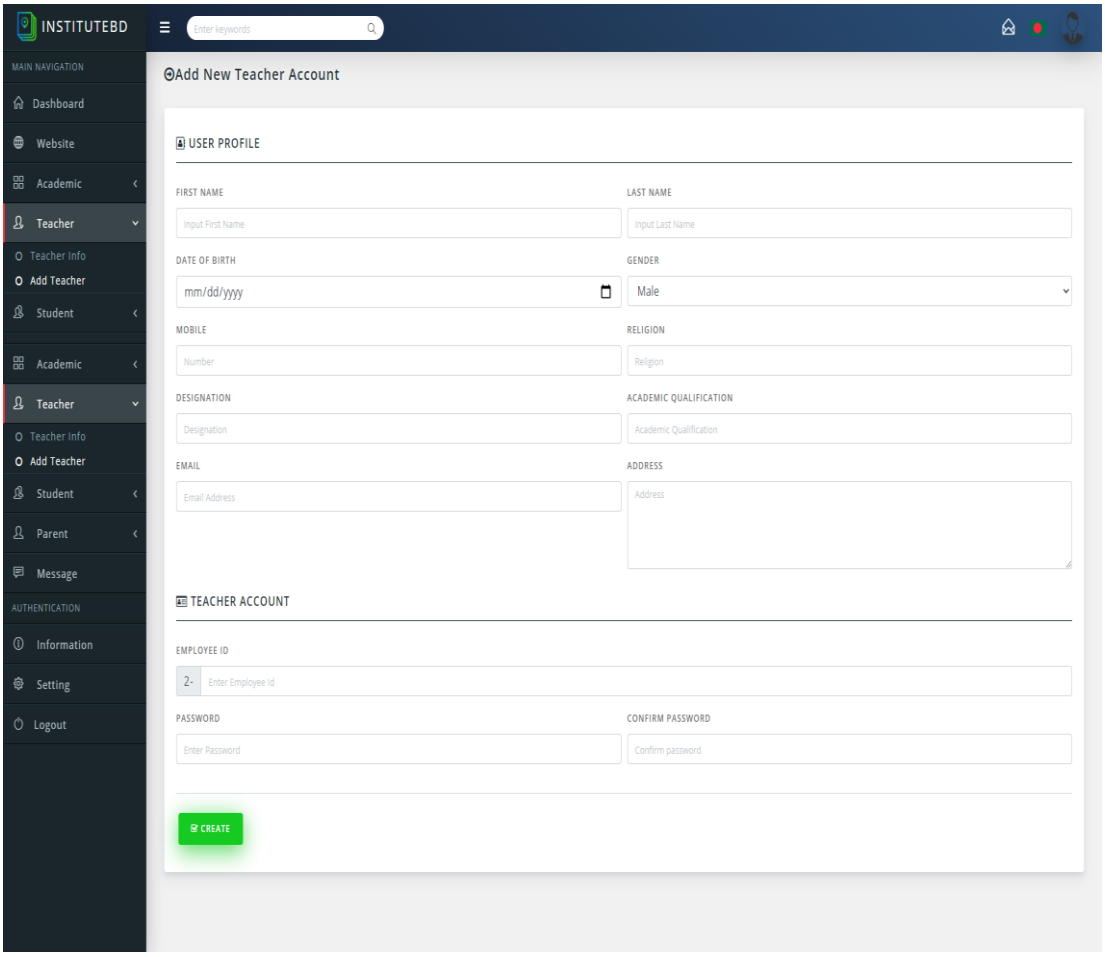


Fig 4.1.2I: Add New Teacher Account

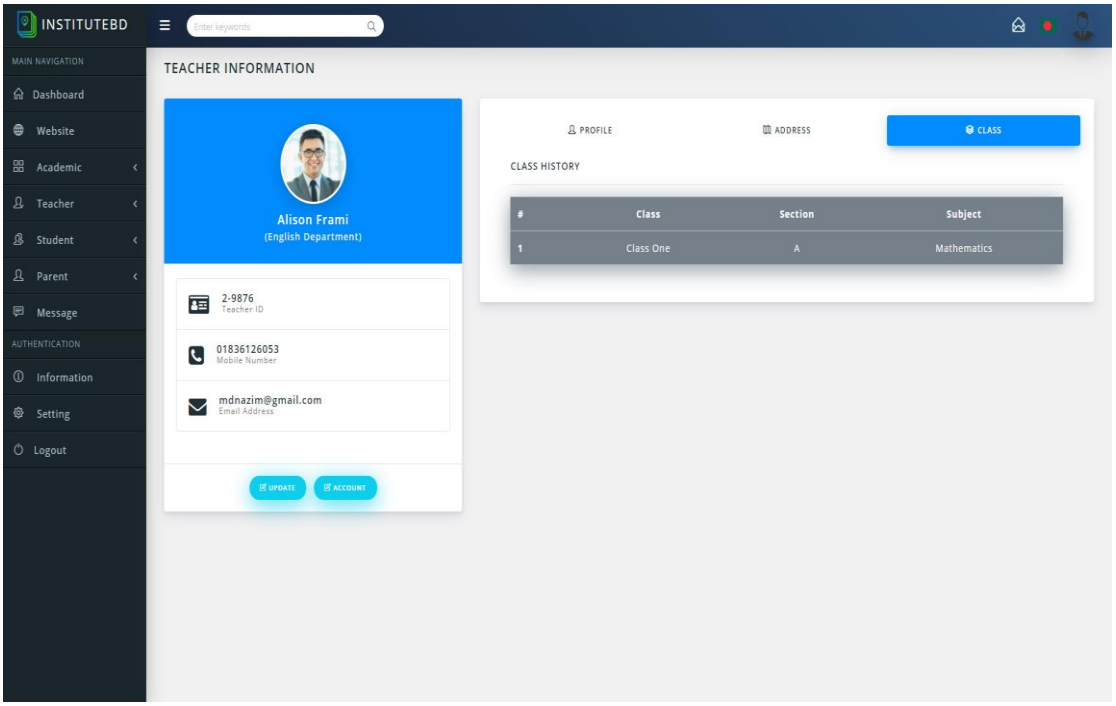


Fig 4.1.2J: Teacher Profile

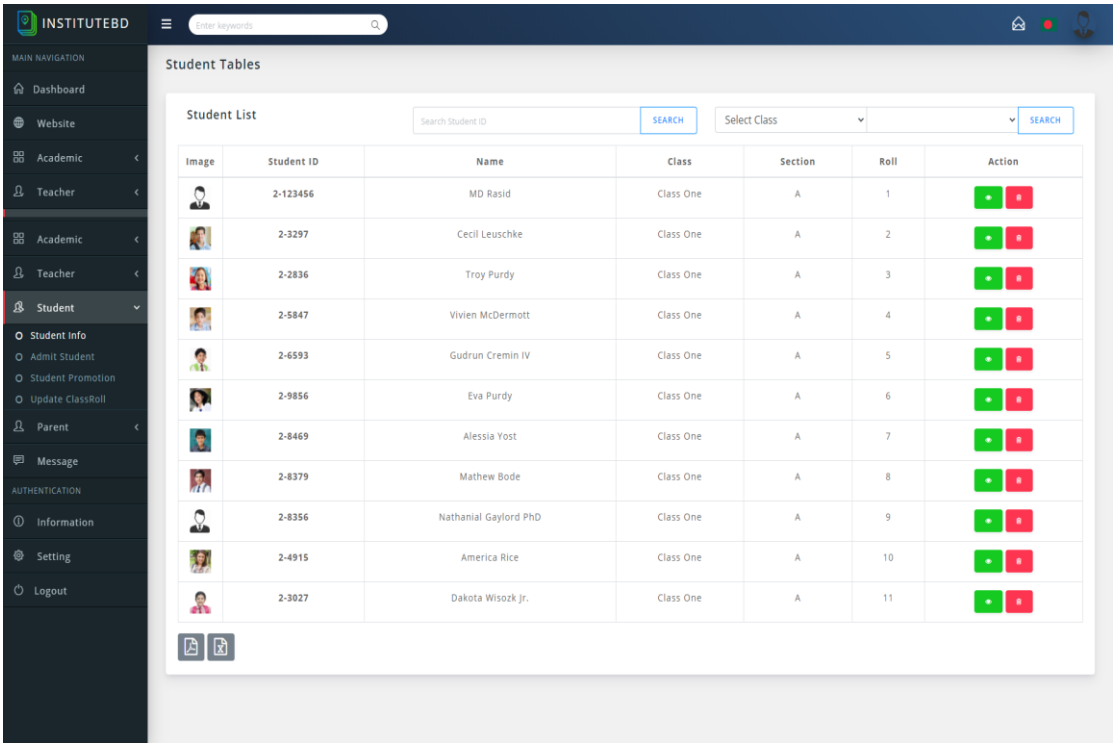


Fig 4.1.2K: Student List

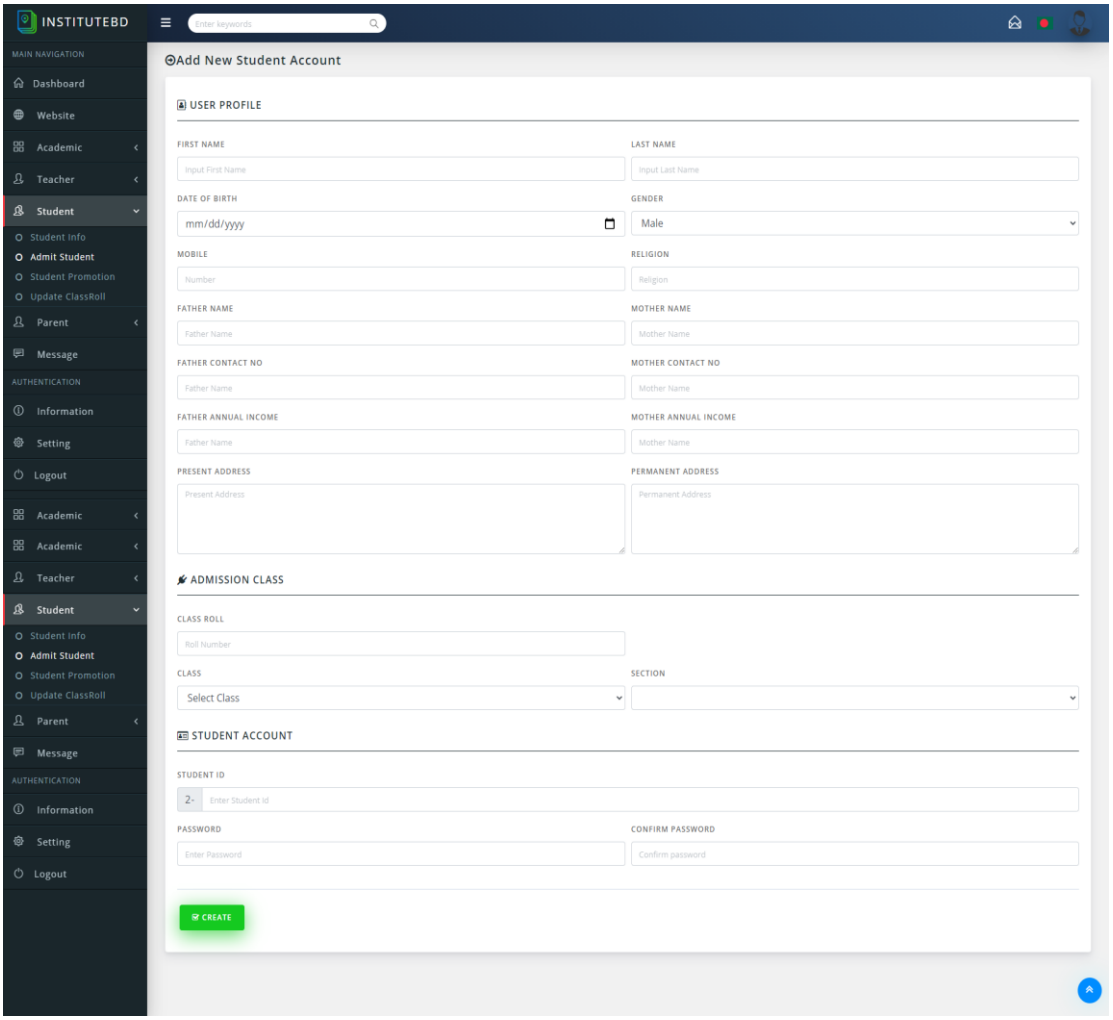


Fig 4.1.2L: Add New Student Account

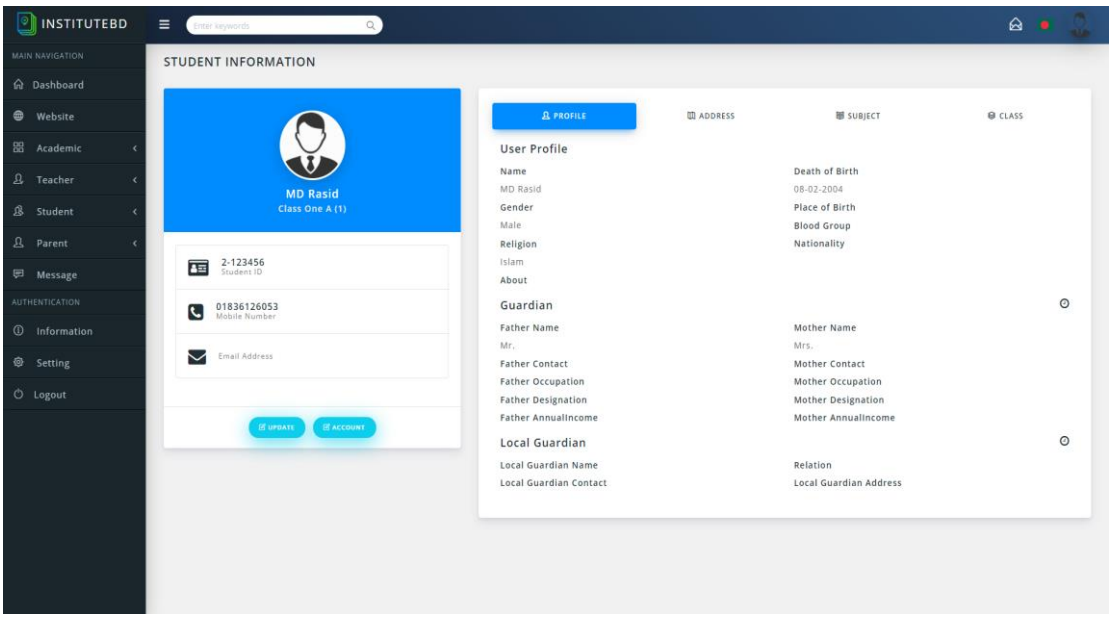


Fig 4.1.2M: Student Profile

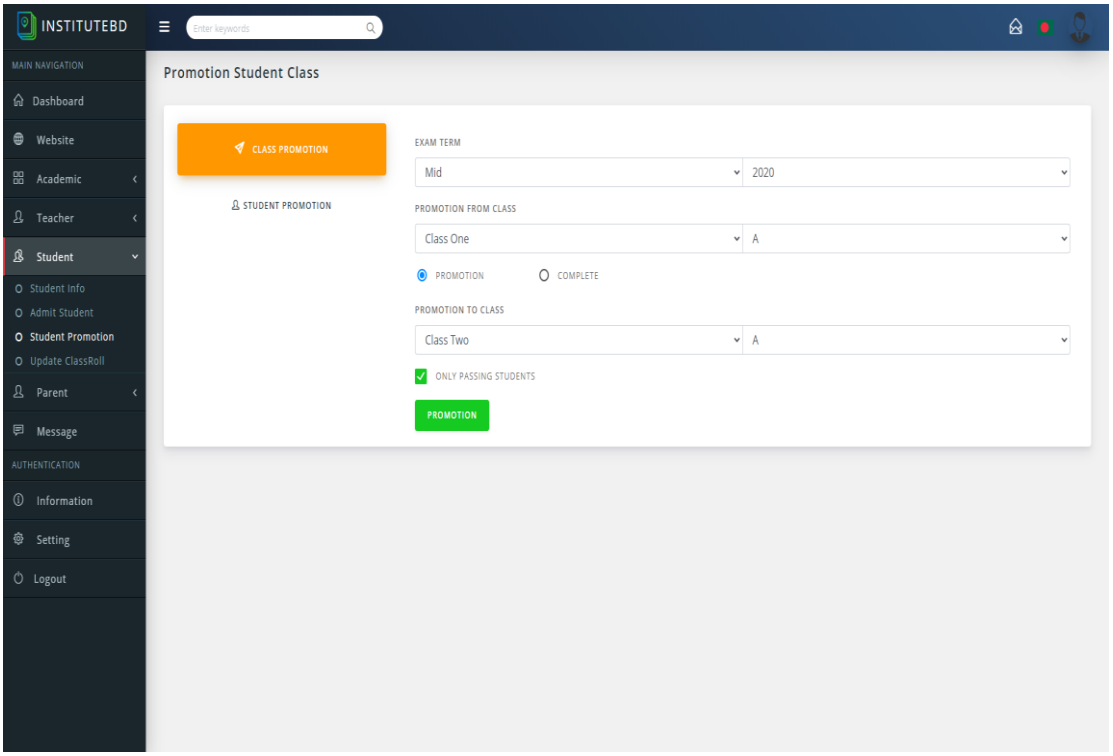


Fig 4.1.2N: Promotion Student by Class

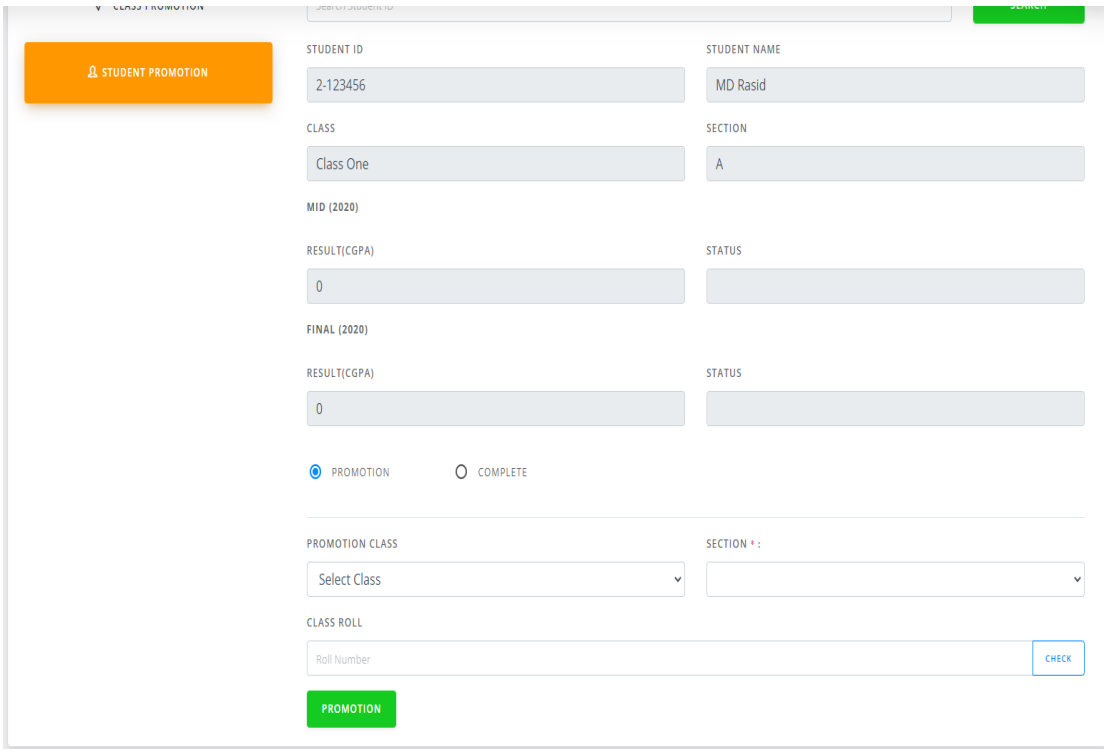


Fig 4.1.2O: Promotion Student

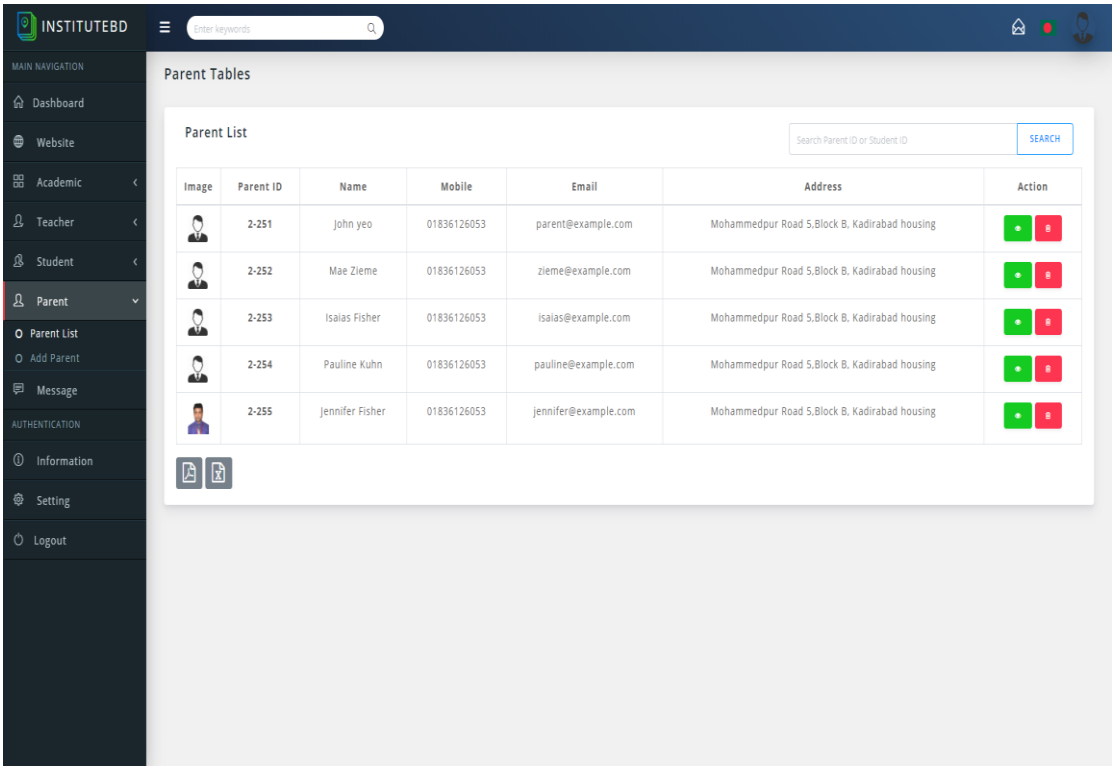


Fig 4.1.2P: Parent List

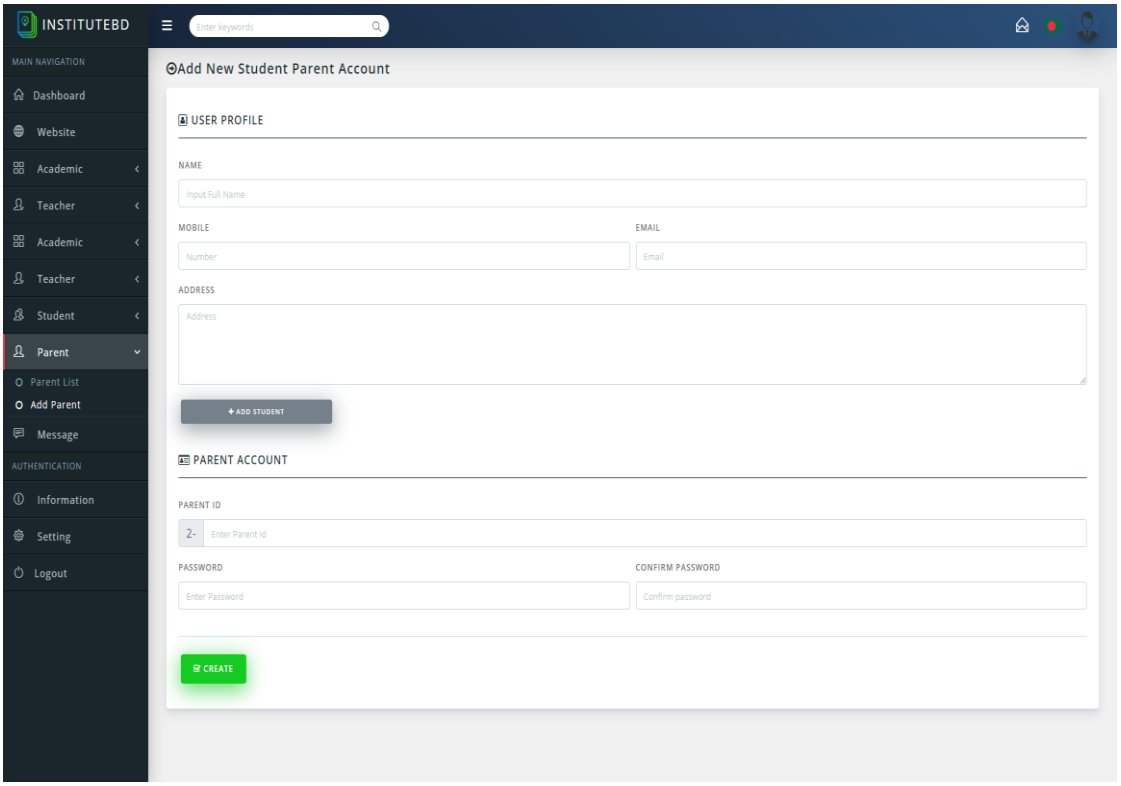


Fig 4.1.2Q: Add New Parent Account

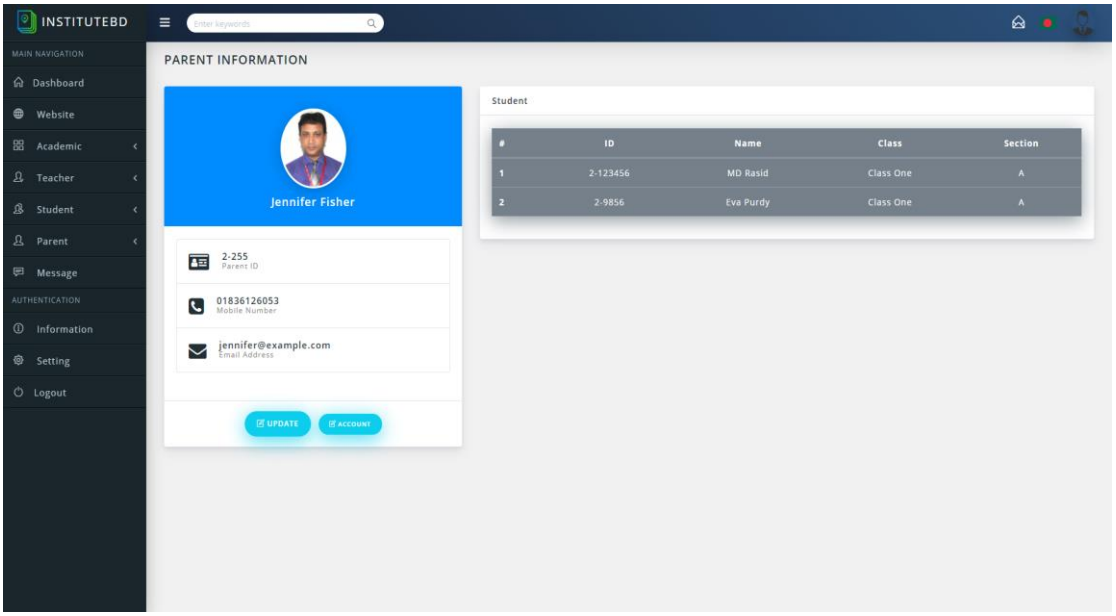


Fig 4.1.2R: Parent Information

4.1.3 Front-End Design for Exam Controller Panel

The exam controller will be able to create the subject's grading system from the panel, manage the students 'exams, create exam routines and publish the students' results.

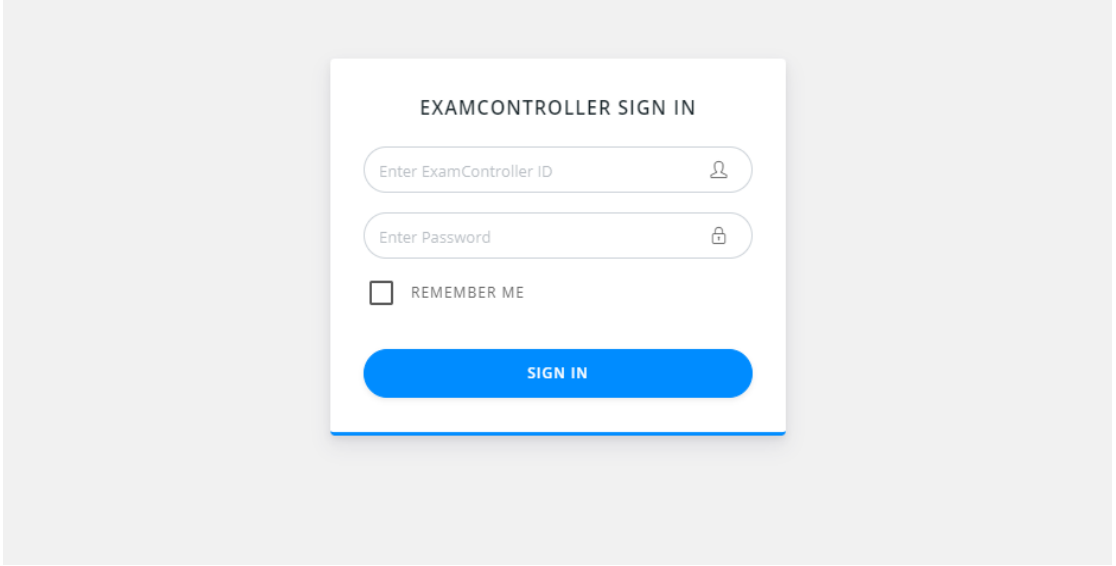


Fig 4.1.3A: ExamController Login

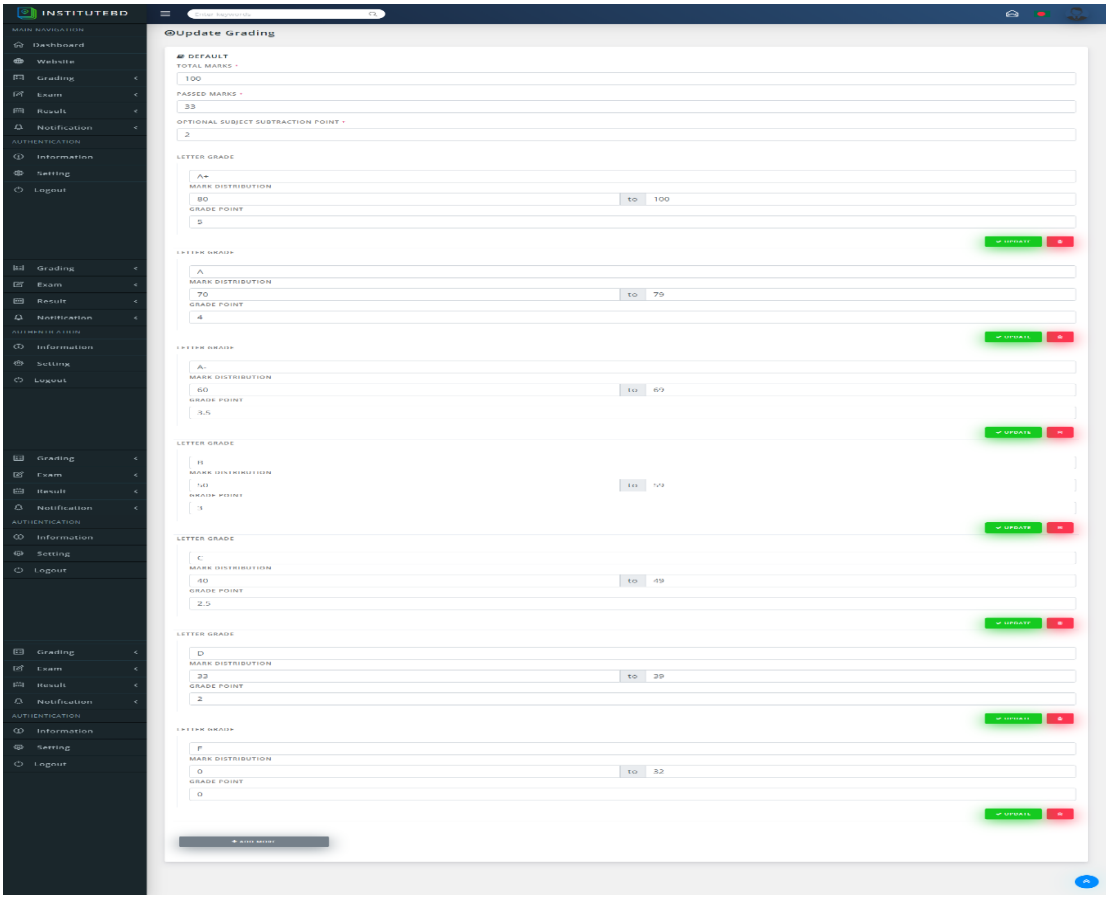


Fig 4.1.3B: Add Grading

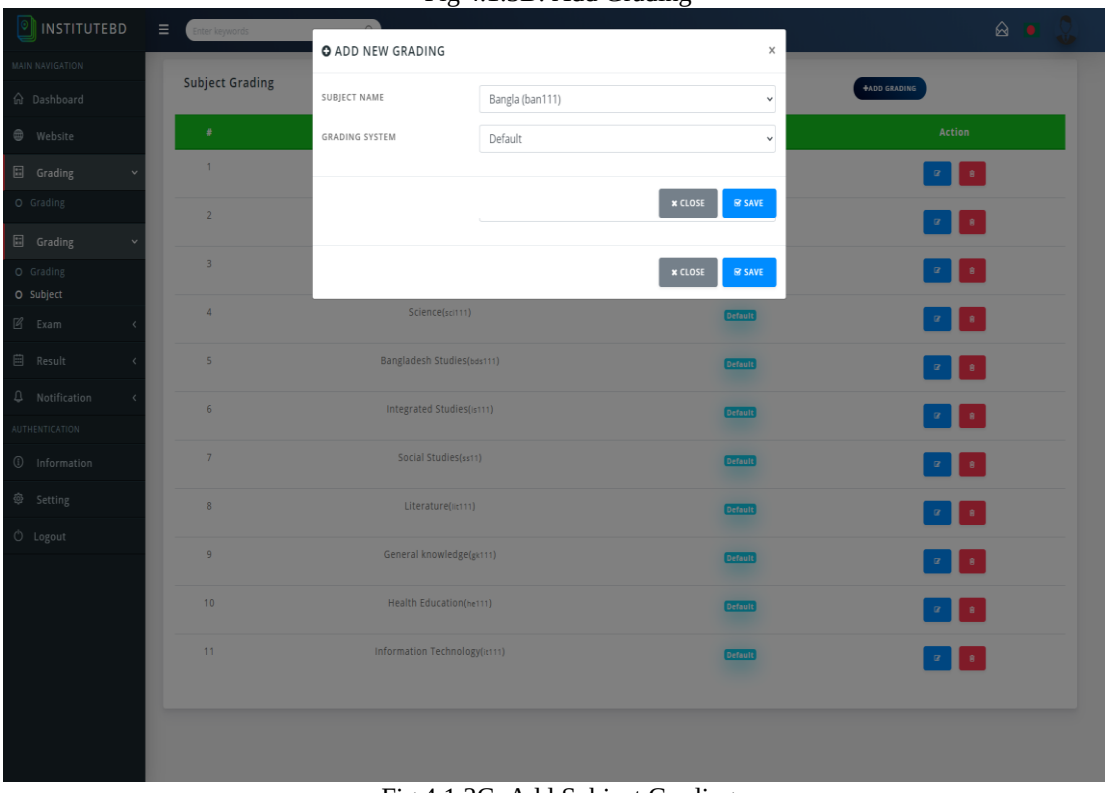


Fig 4.1.3C: Add Subject Grading

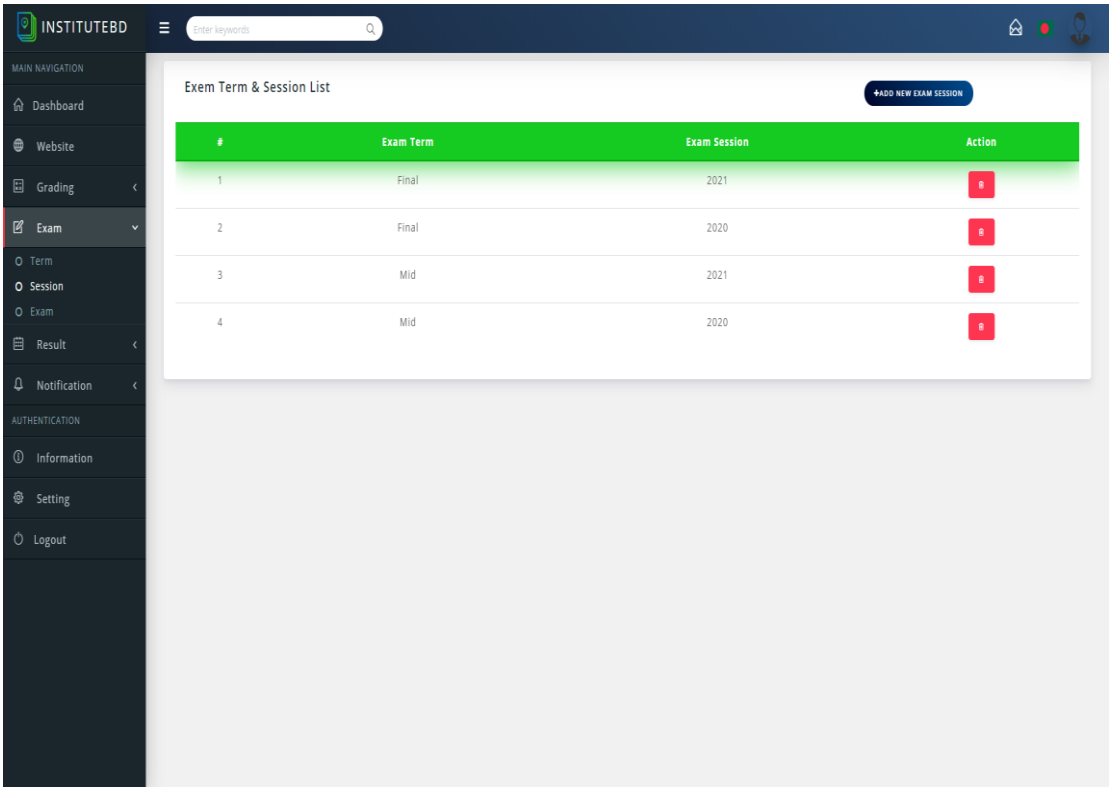


Fig 4.1.3D: Exam Term & Session List

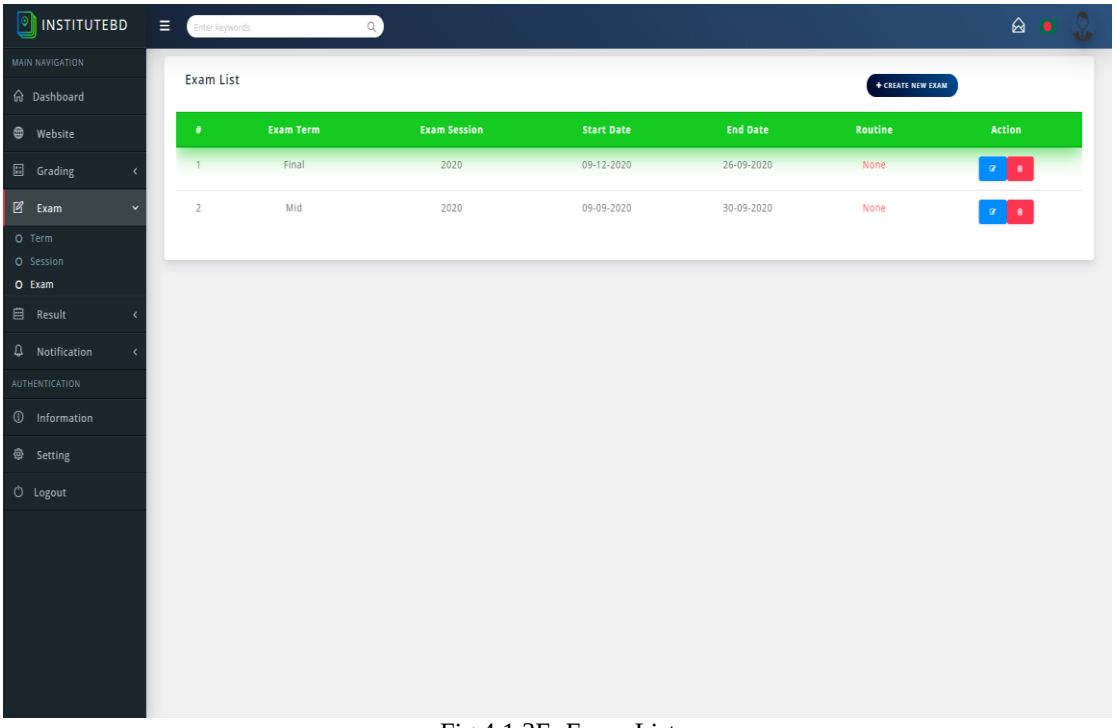


Fig 4.1.3E: Exam List

Roll	Name	CGPA	Status	Action
1	MD Rasid	3.67	Pass	
2	Cecil Leuschke	3.33	Pass	
3	Troy Purdy	4.33	Pass	
4	Vivien McDermott	4	Pass	
5	Gudrun Cremin IV	3.17	Pass	
6	Eva Purdy	3.67	Pass	
7	Alessia Yost	3	Fail	
8	Mathew Bode	3	Pass	
9	Nathanial Gaylord PhD	3.67	Pass	
10	America Rice	4	Pass	
11	Dakota Wisozk Jr.	3.33	Fail	

Fig 4.1.3F: Student Result

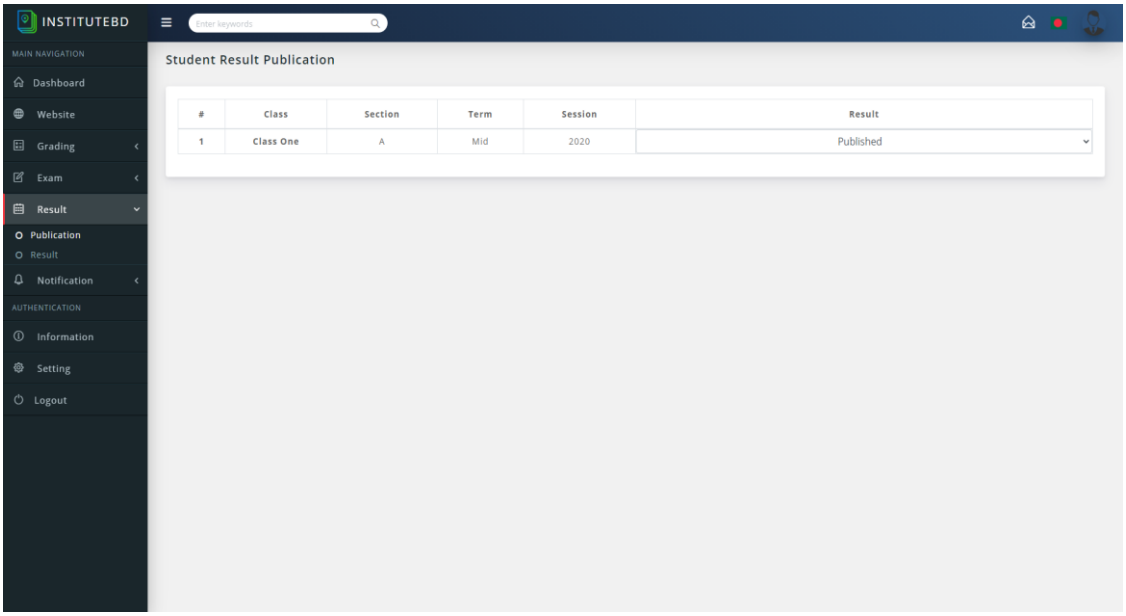


Fig 4.1.3G: Student Result Publication

4.1.4 Front-End Design for Accountant Controller Panel

From the Accountant Controller Panel to pay the salaries of teachers, pay the staff, collect fee of students. Keeping account of income and expenditure of the organization and also can collects all the accounts including the monthly and annual revenue of the organization.

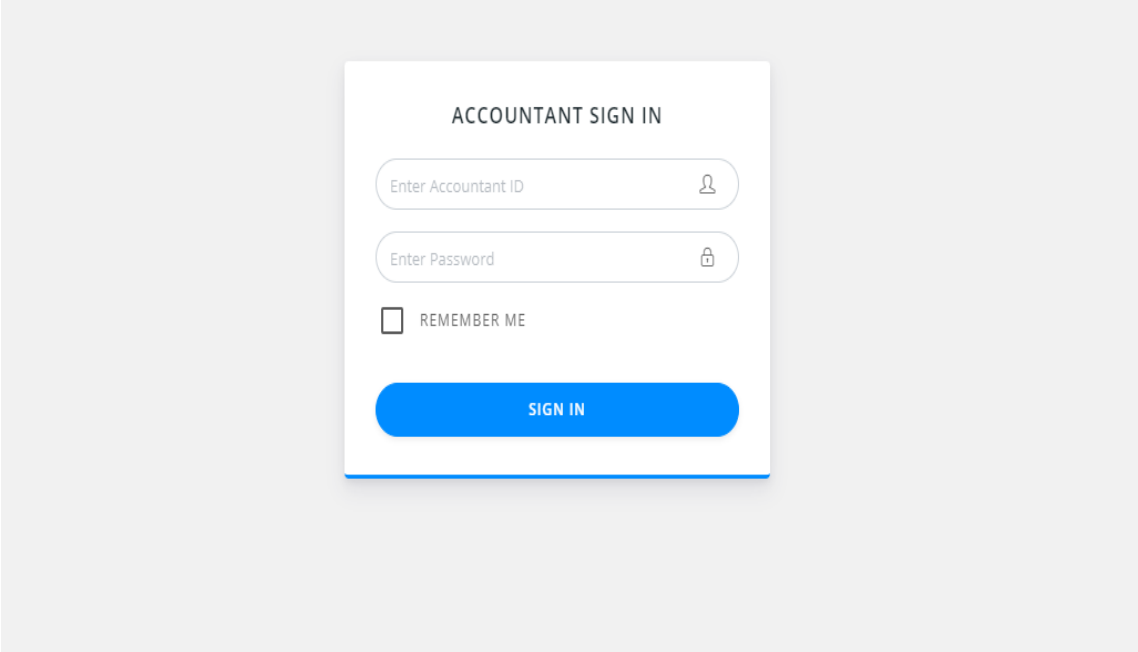


Fig 4.1.4A: Accountant Login

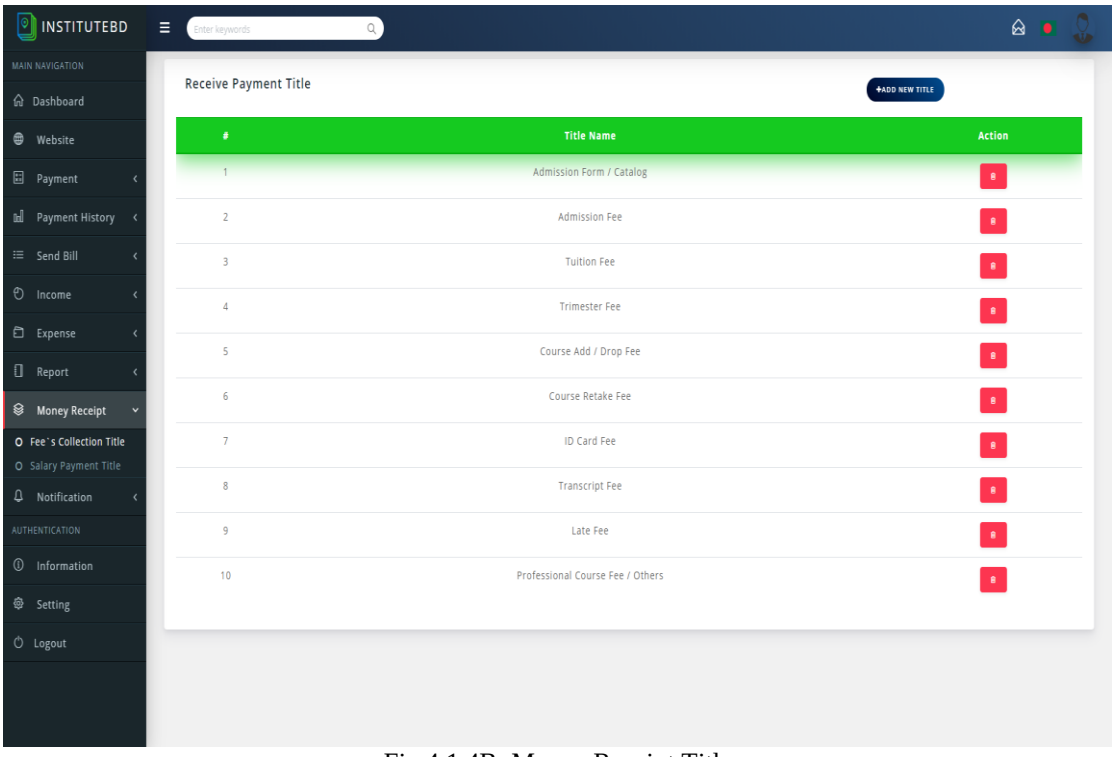


Fig 4.1.4B: Money Receipt Title

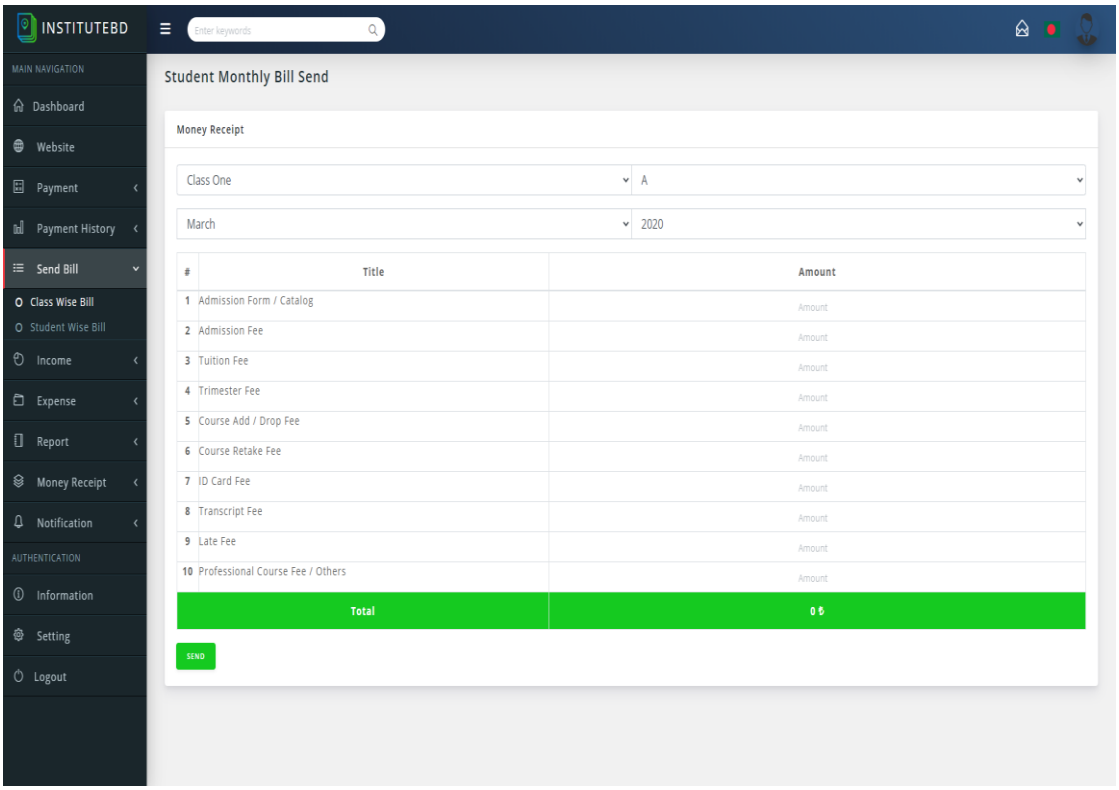


Fig 4.1.4C: Student Monthly Bill Send

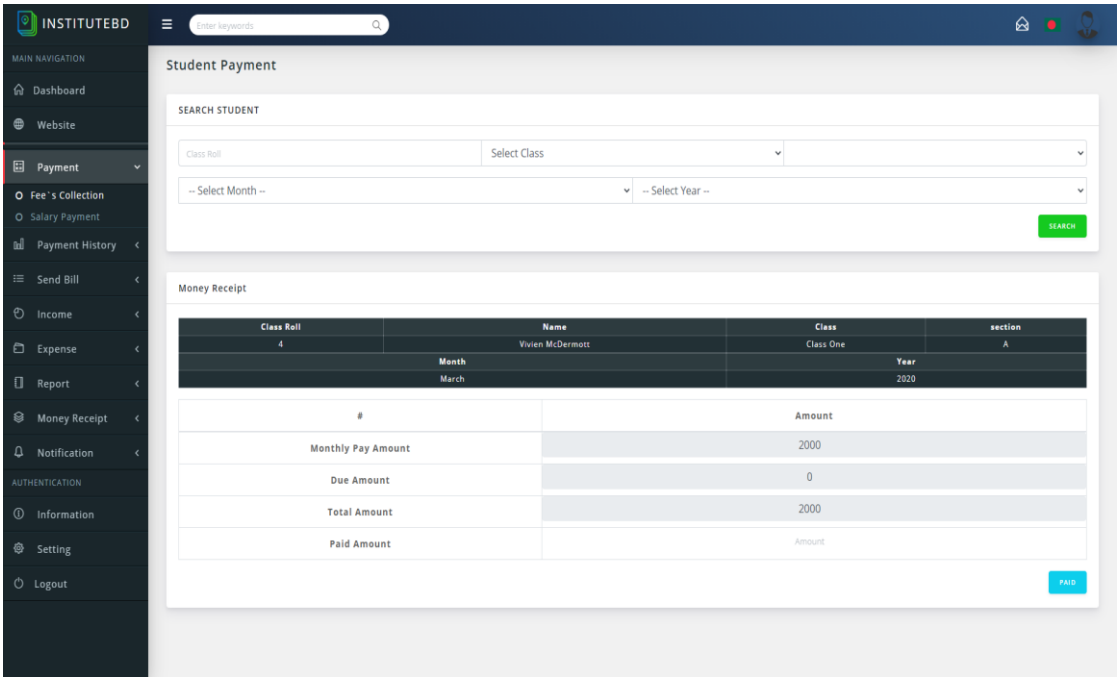


Fig 4.1.4D: Student Fee's Collection

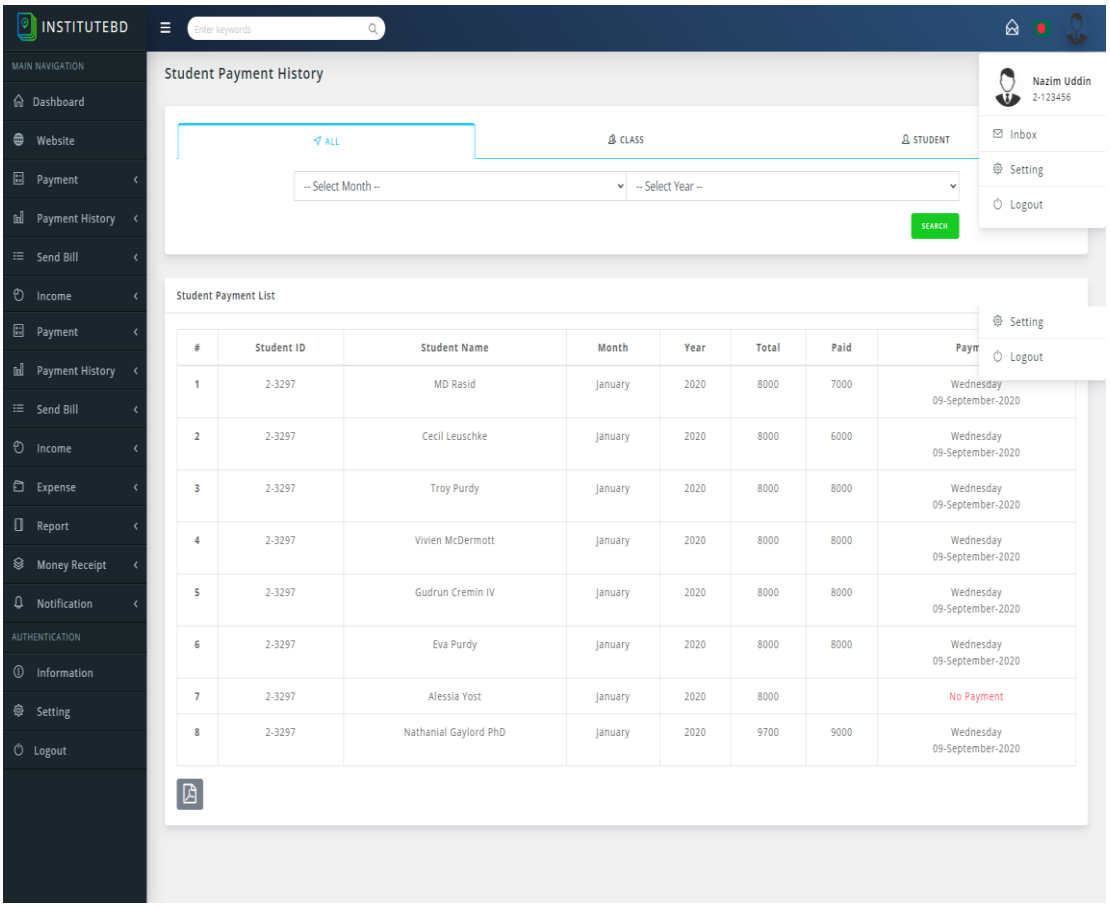


Fig 4.1.4E: Student Payment History

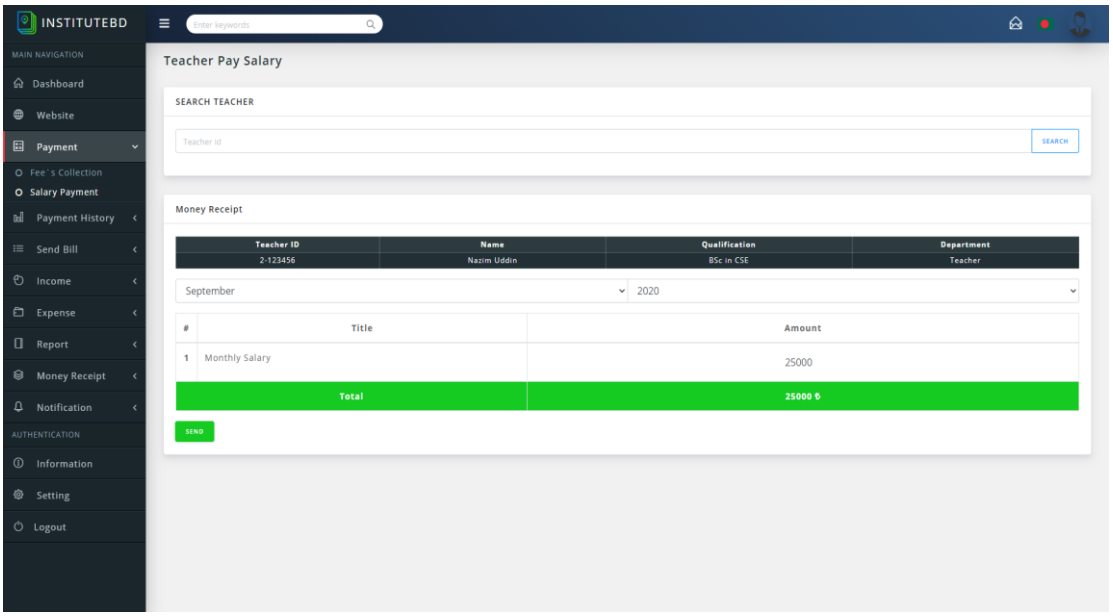


Fig 4.1.4F: Teacher Salary Paid

4.1.5 Front-End Design for Library Control Panel

Library control panel will be able to register new members. Can add books. Members will be able to give and return books.

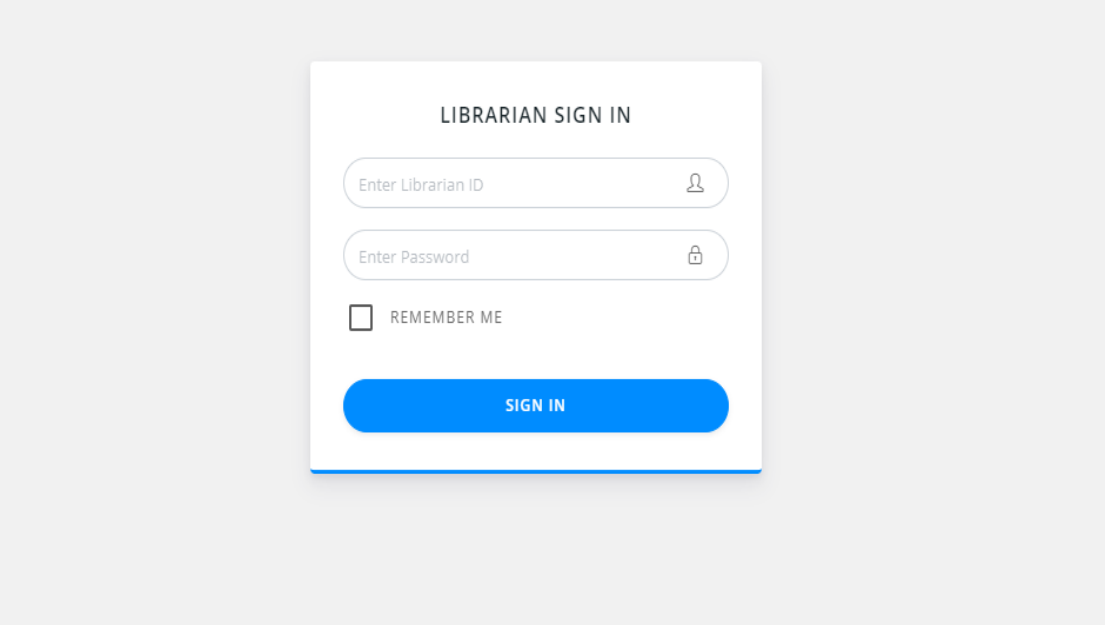


Fig 4.1.5A: Librarian Login

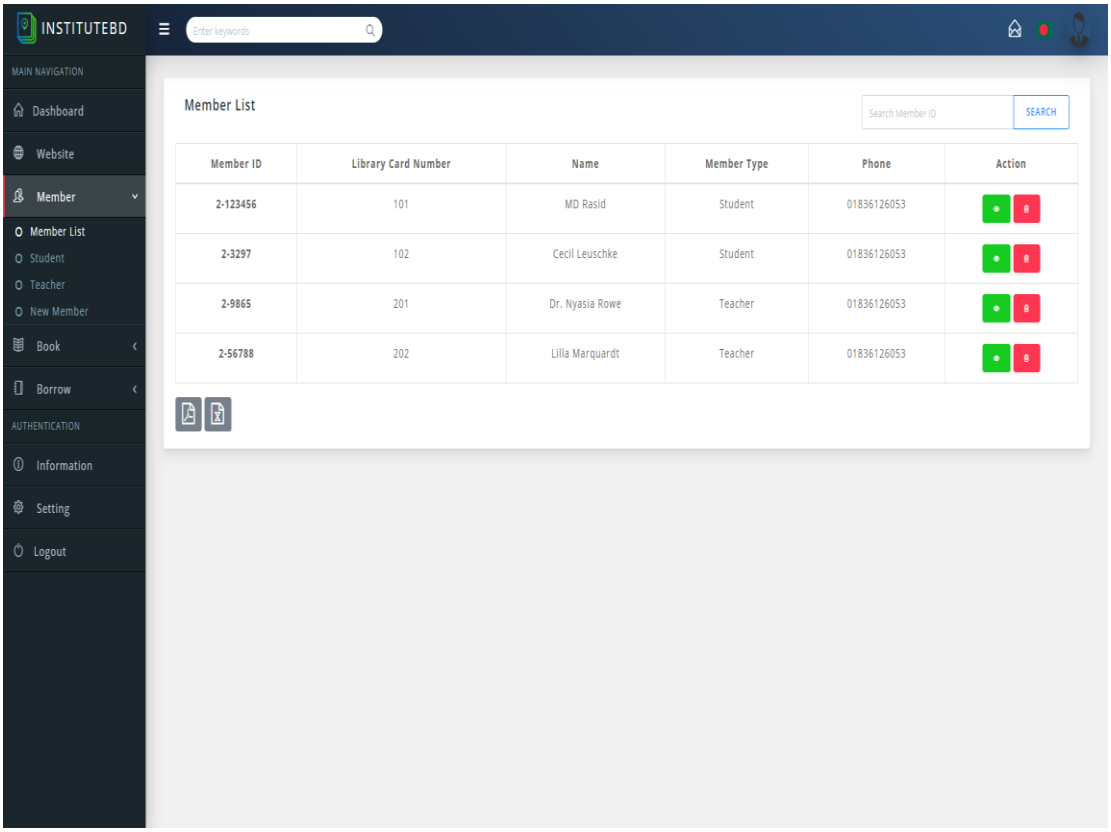


Fig 4.1.5B: Library Member List

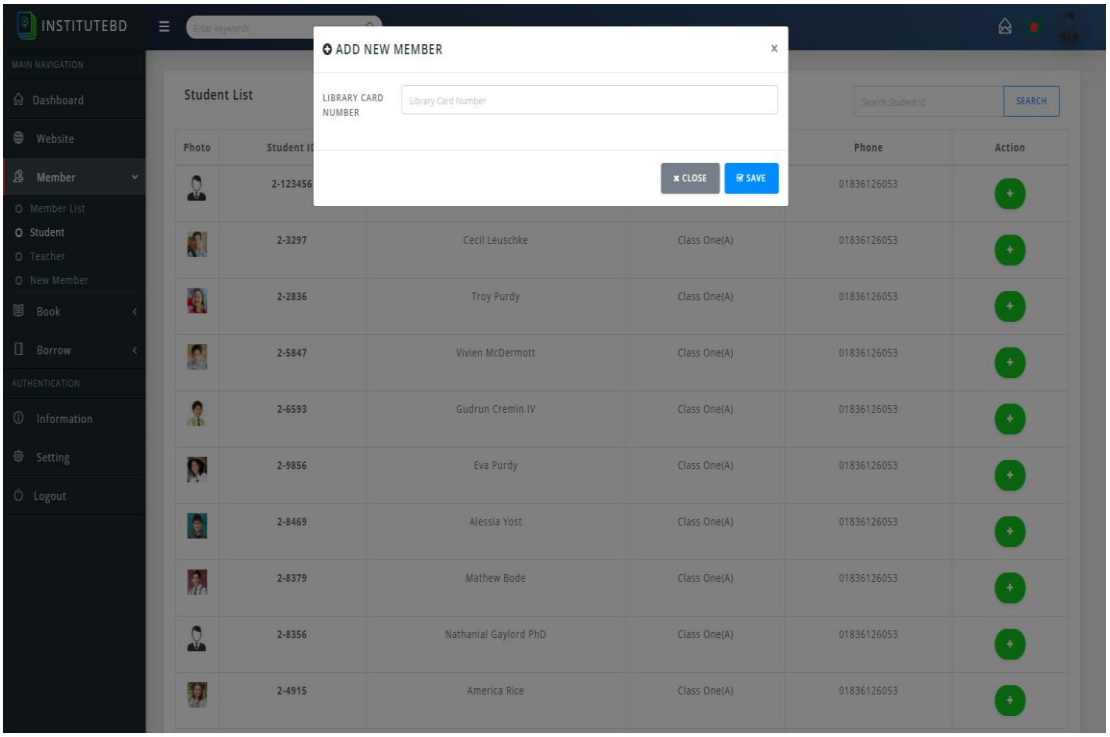


Fig 4.1.5C: Library Add Member

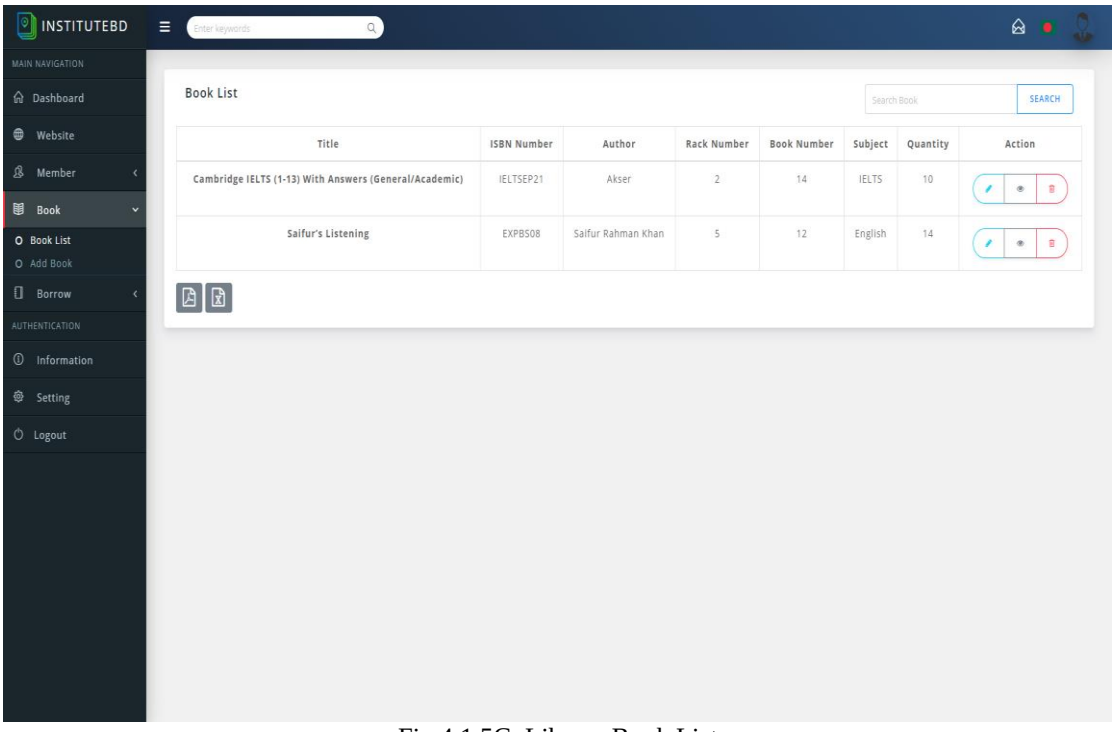


Fig 4.1.5C: Library Book List

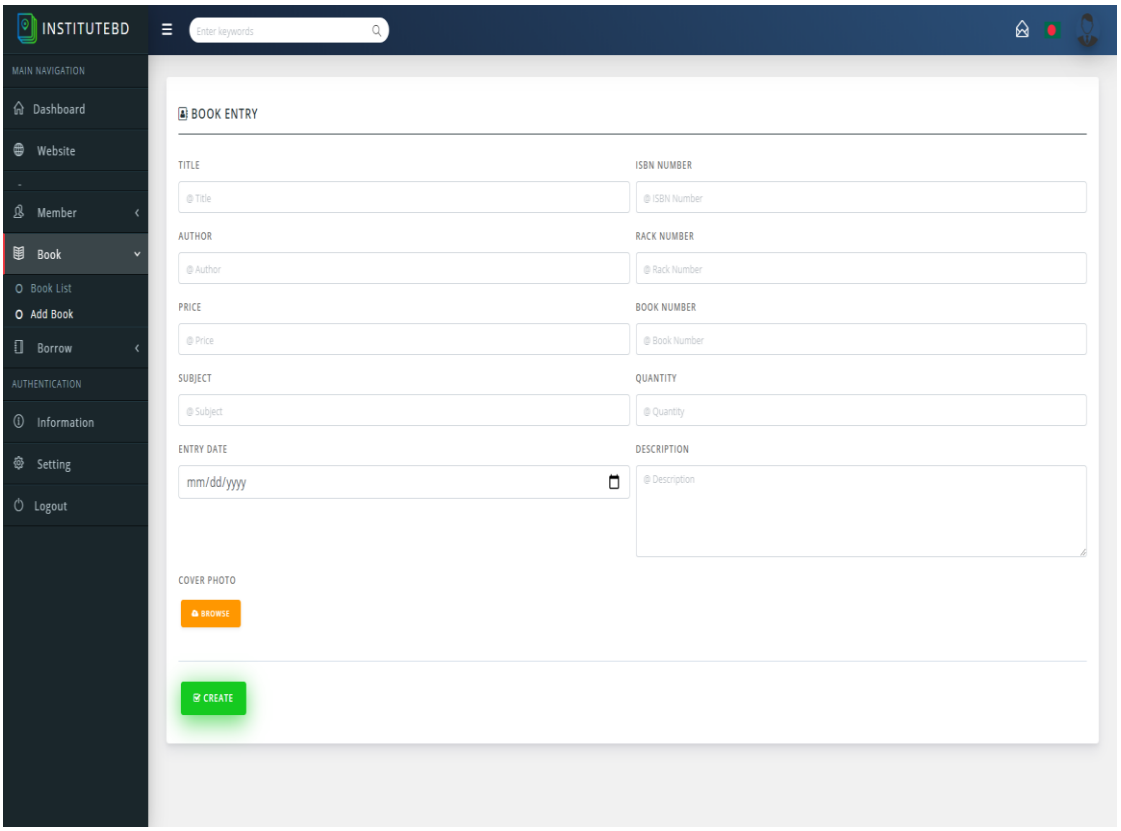


Fig 4.1.5D: Library Book Add

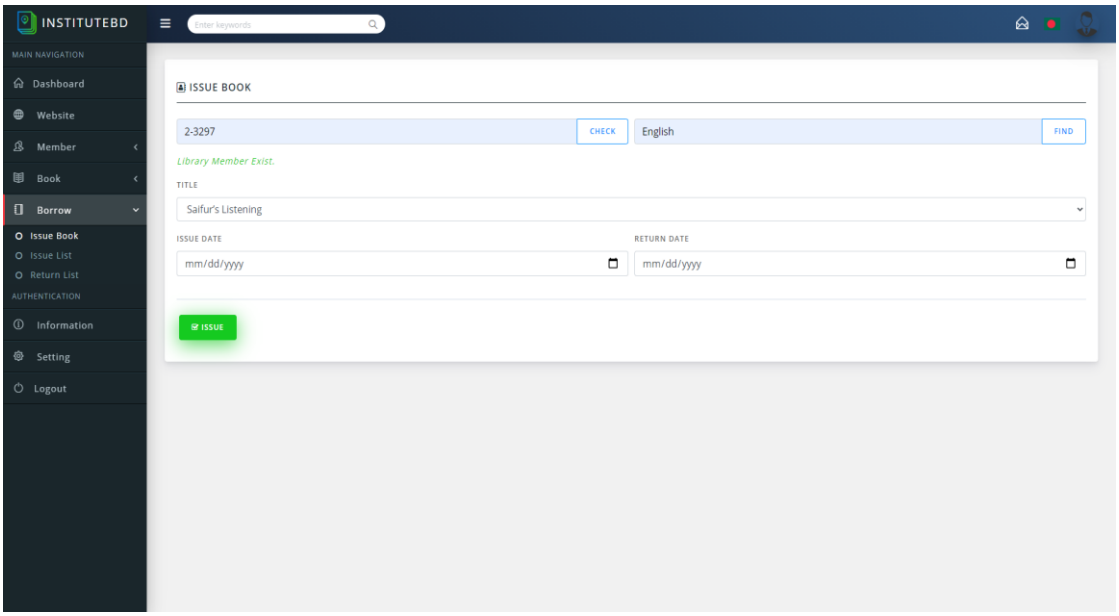


Fig 4.1.5E: Library Issue Book

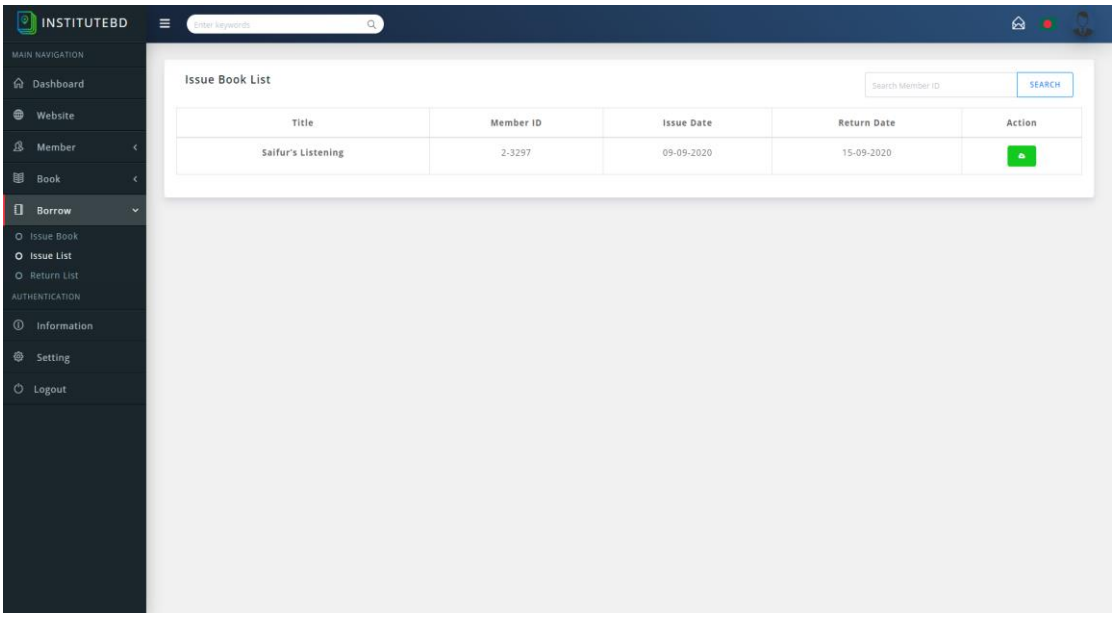


Fig 4.1.5F: Issue Book List

4.1.6 Front-End Design for Teacher Control Panel

Teacher can view class schedules from the Teacher-Control panel, take student attendance, add test marks to students, and stay connected to students through virtual classrooms, as well as give students homework online.

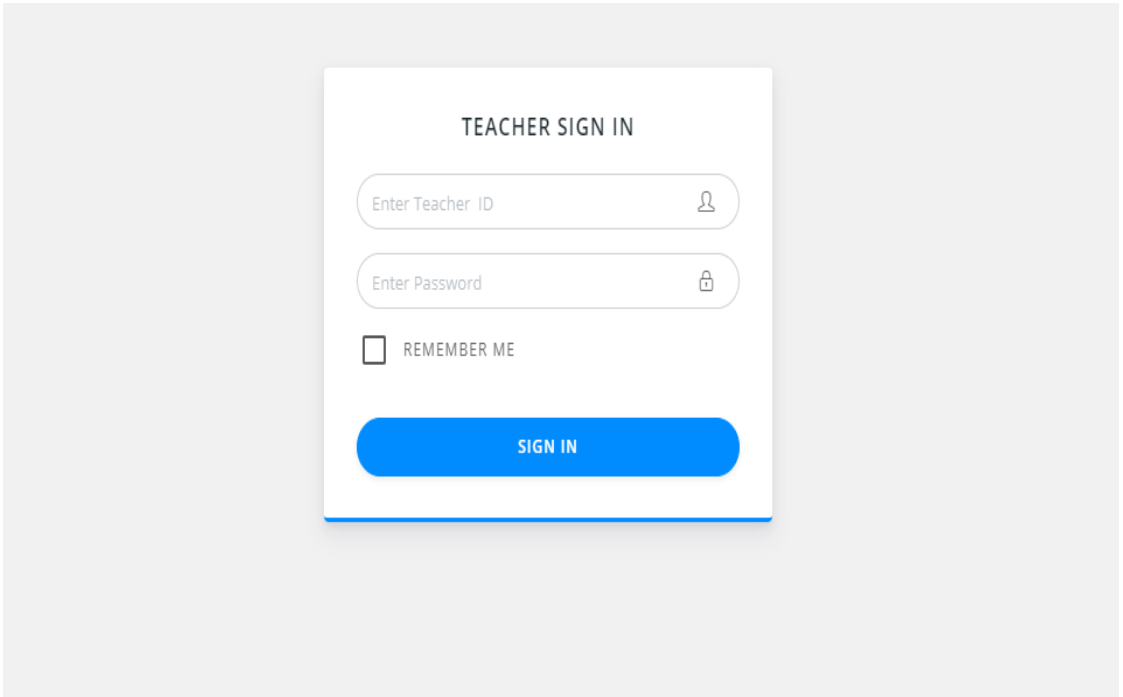


Fig 4.1.6A: Teacher Login

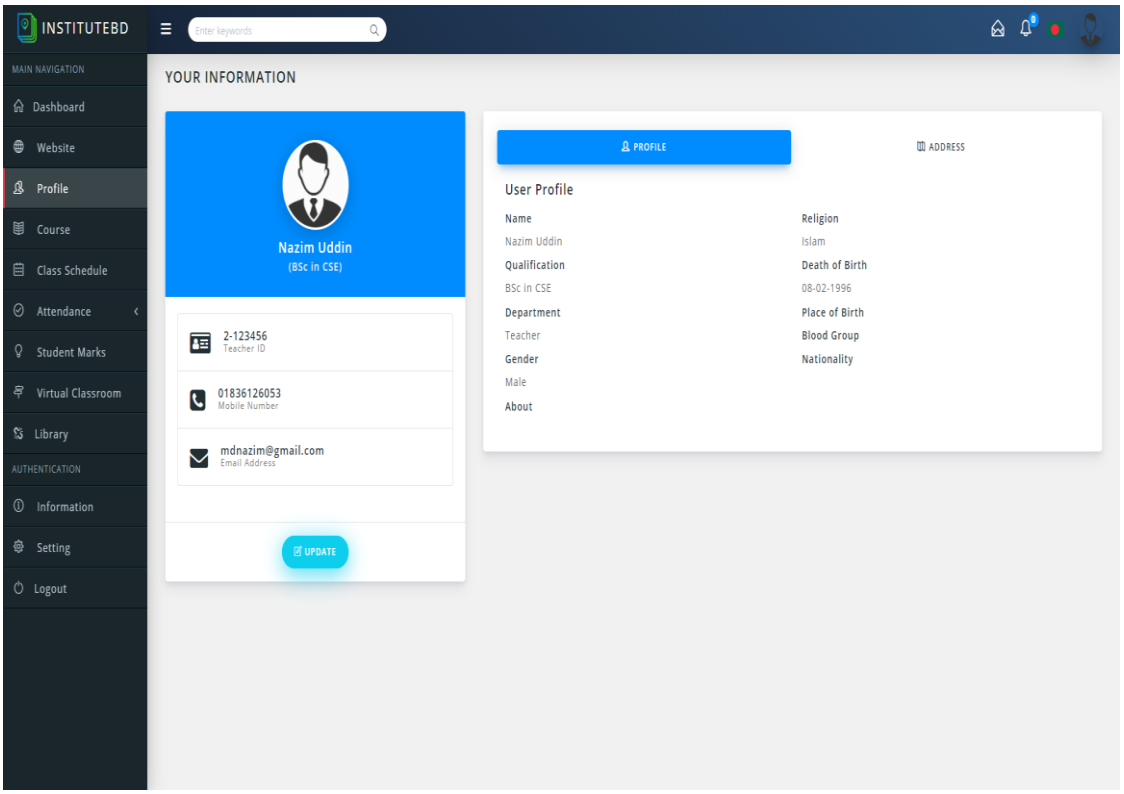


Fig 4.1.6B: Teacher Profile

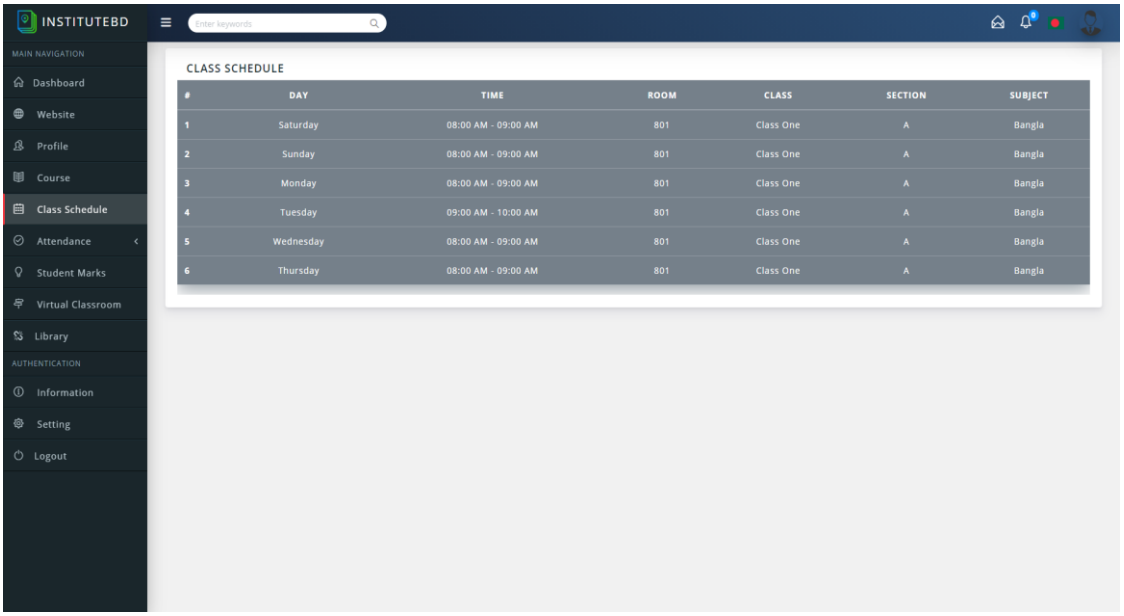


Fig 4.1.6C: Teacher Class Schedule

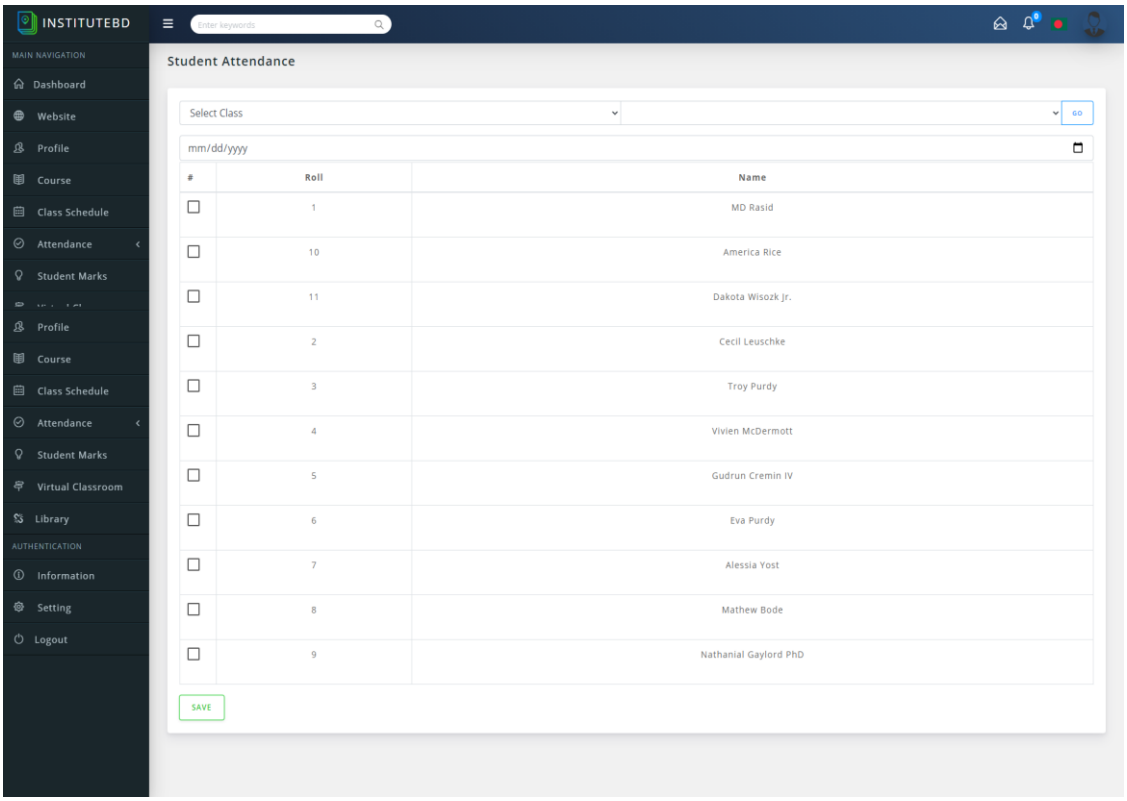


Fig 4.1.6D: Student Attendance

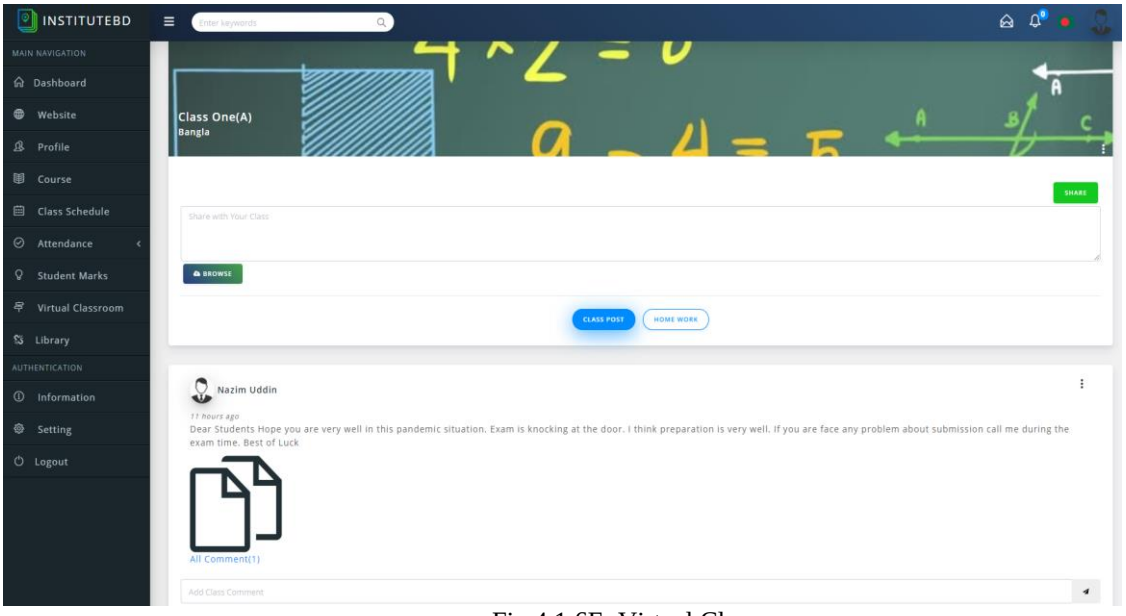


Fig 4.1.6E: Virtual Class

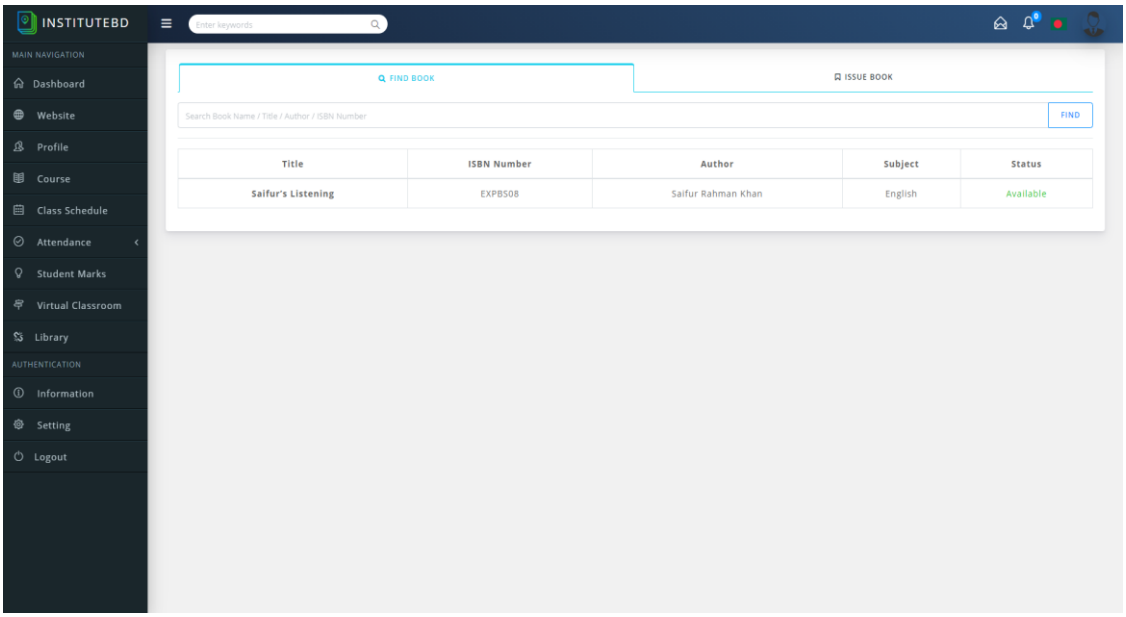


Fig 4.1.6F: Teacher Find Book by Library

4.1.7 Front-End Design for Student Control Panel

From the Student Control Panel students will be able to see how much money they have to pay to their institution, students will be able to see the current class subject, class routine and exam routine. They will also be able to see their test results, stay connected to teachers through virtual classrooms and will be able to submit homework given by teachers online.

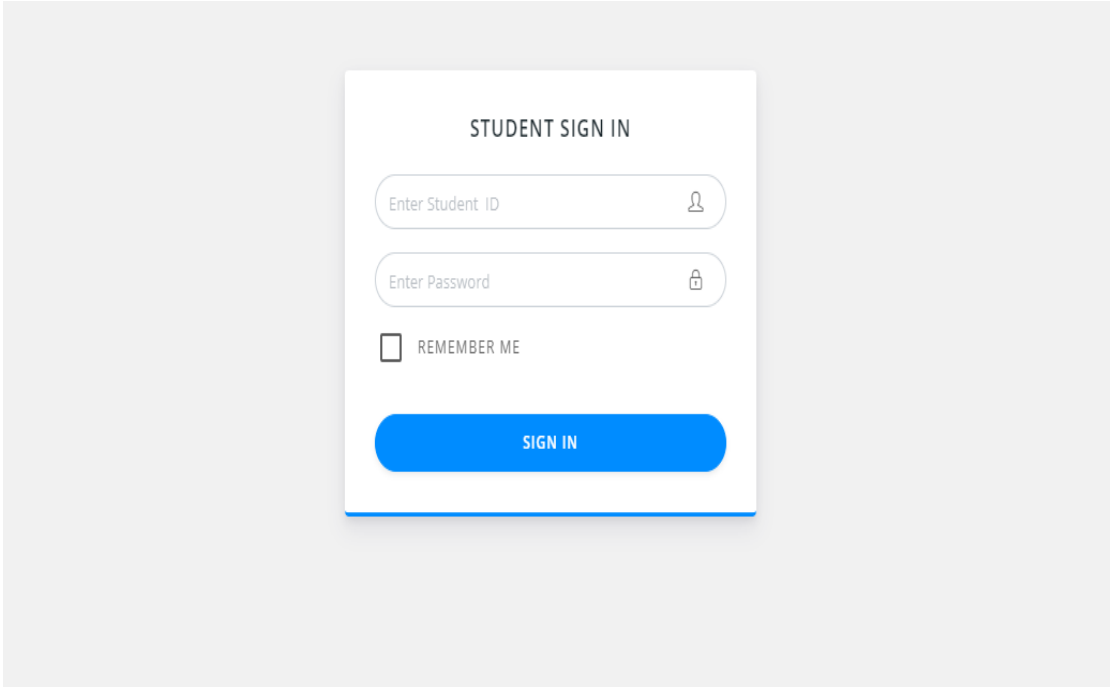


Fig 4.1.7A: Student Login

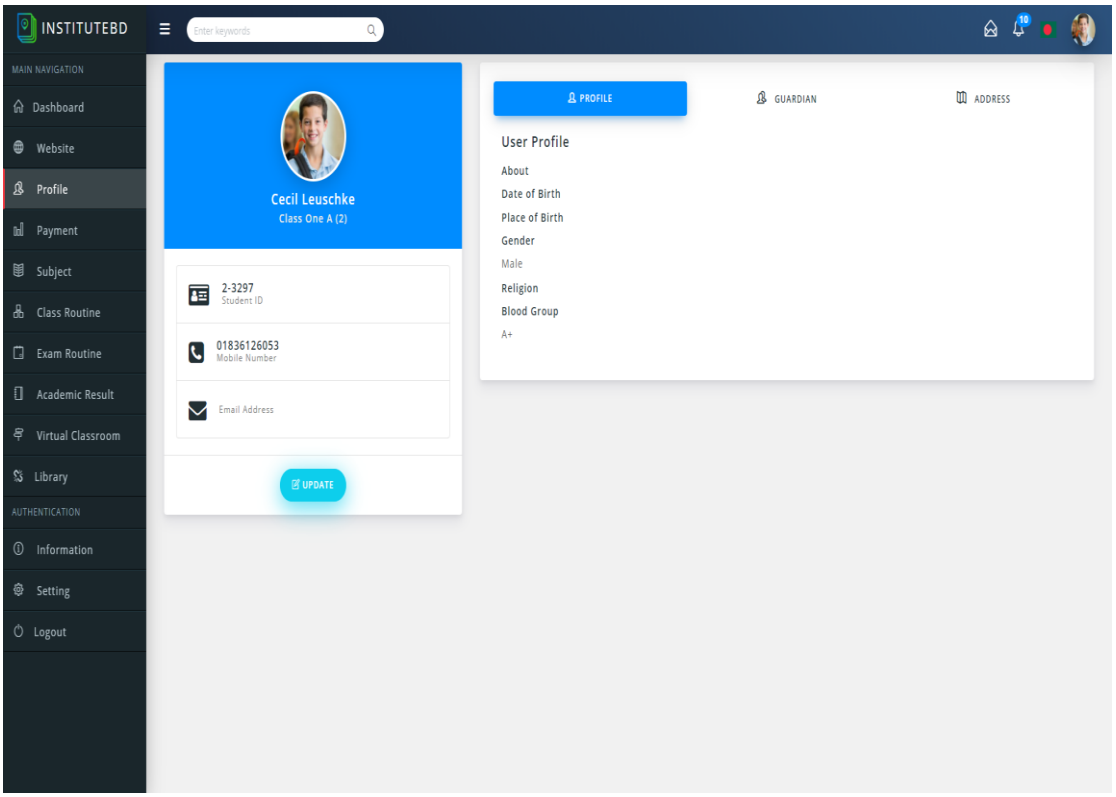


Fig 4.1.7B: Student Profile

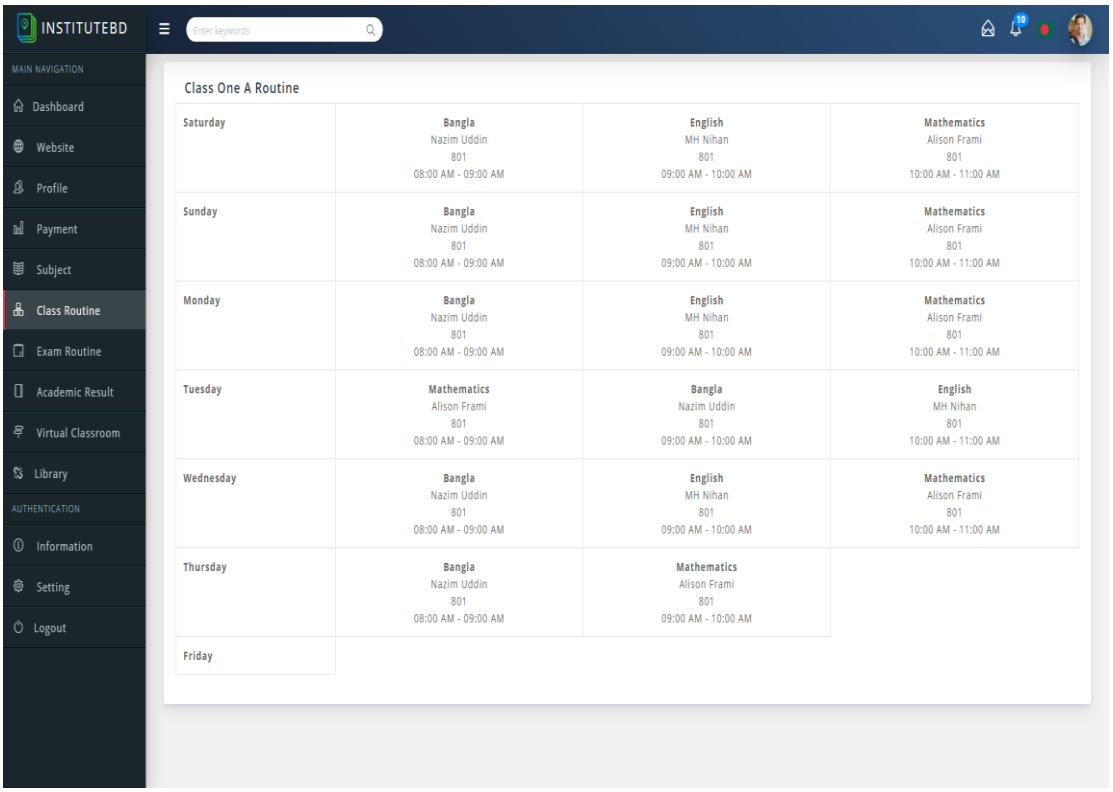


Fig 4.1.7C: Student Class Routine

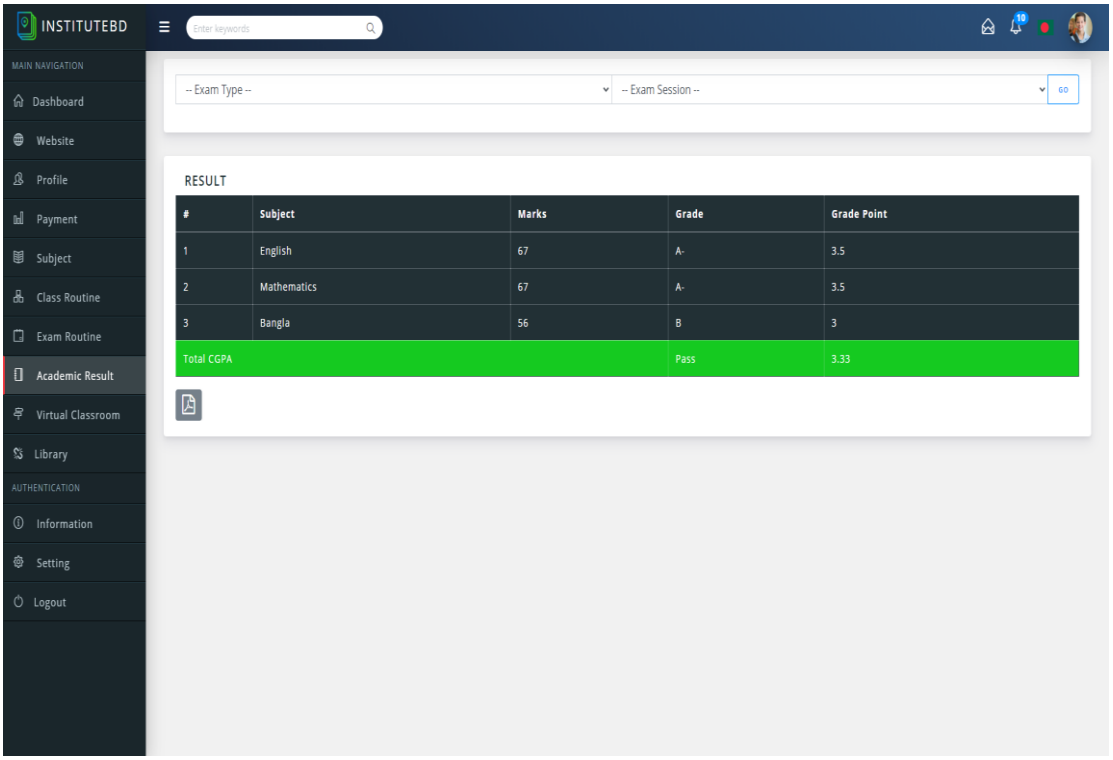


Fig 4.1.7D: Student Result

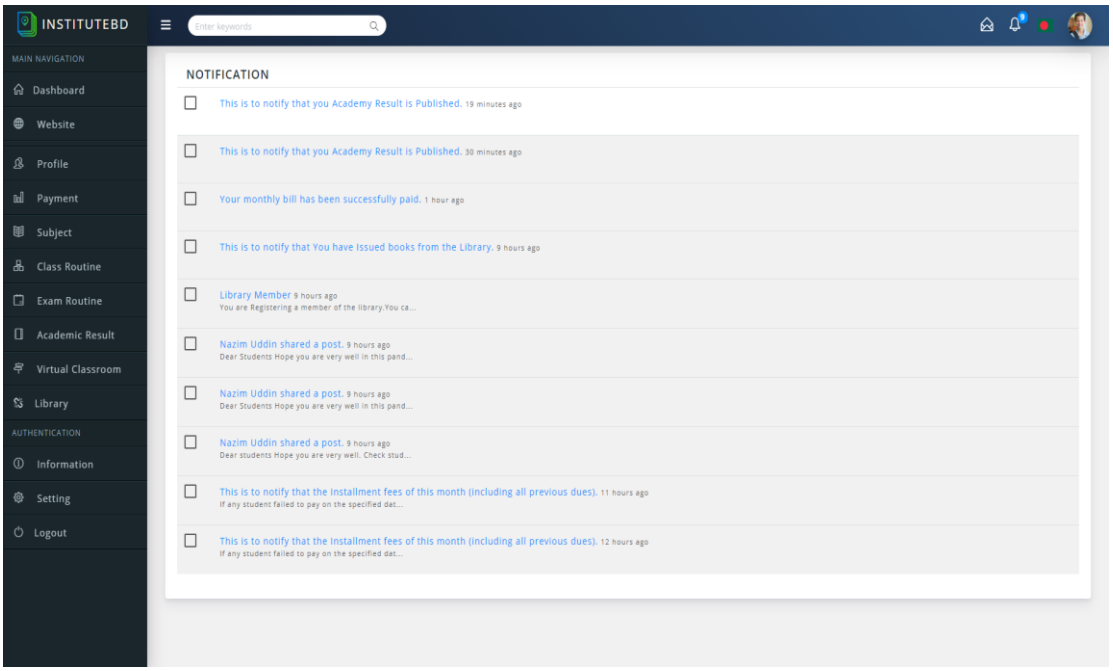


Fig 4.1.7E: Student Notification

4.1.8 Front-End Design for Guardian control

From the Guardian Control Panel parents can be able to see the activities of their children also able to see the salaries, the class courses, the class routines and the attendance reports.

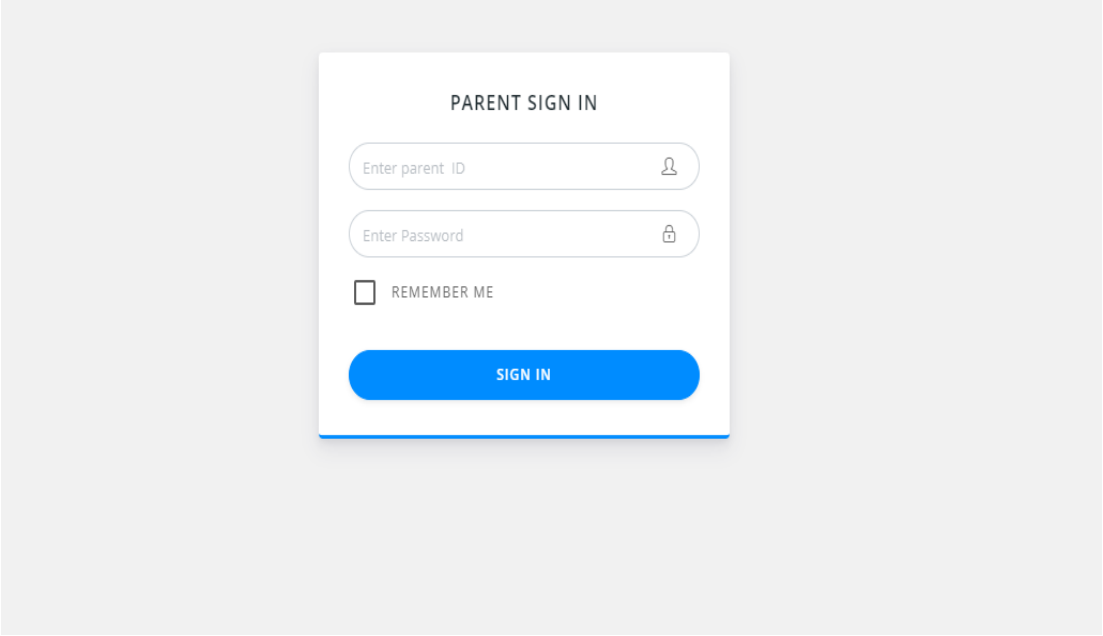


Fig 4.1.8A: Parent Login

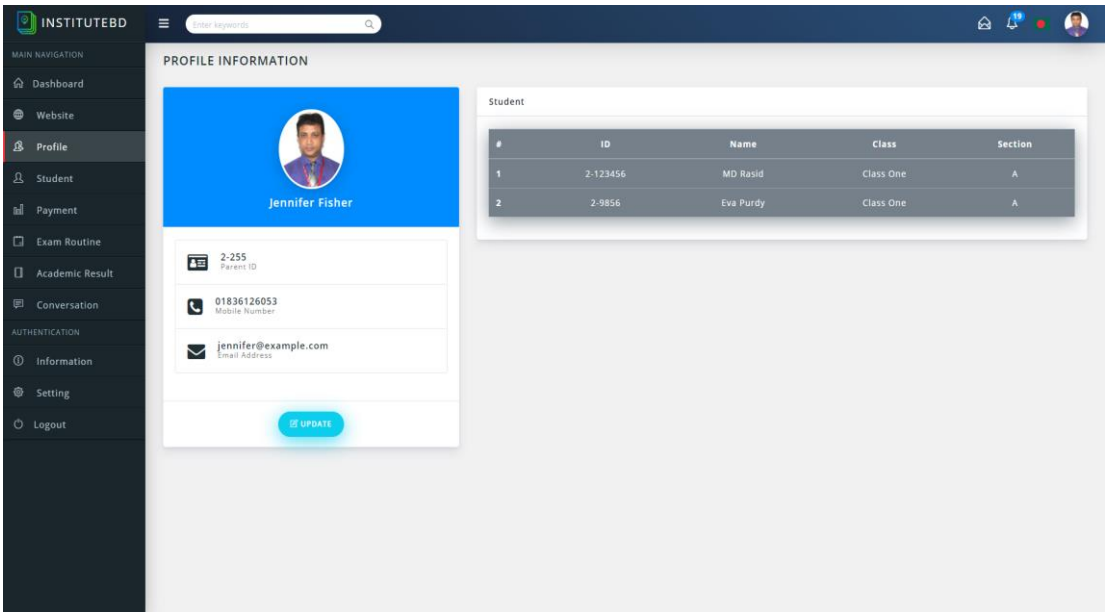


Fig 4.1.8B: Parent Profile

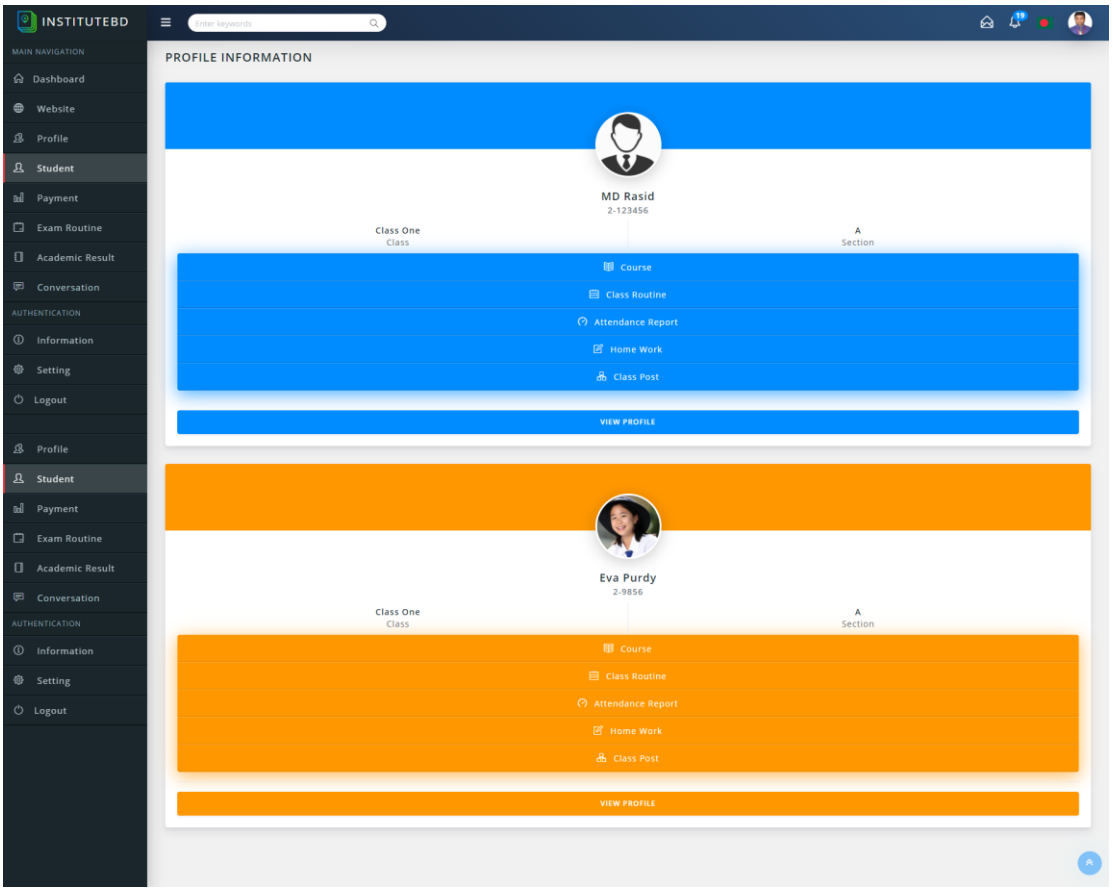


Fig 4.1.8C: Student Profile and Activity page

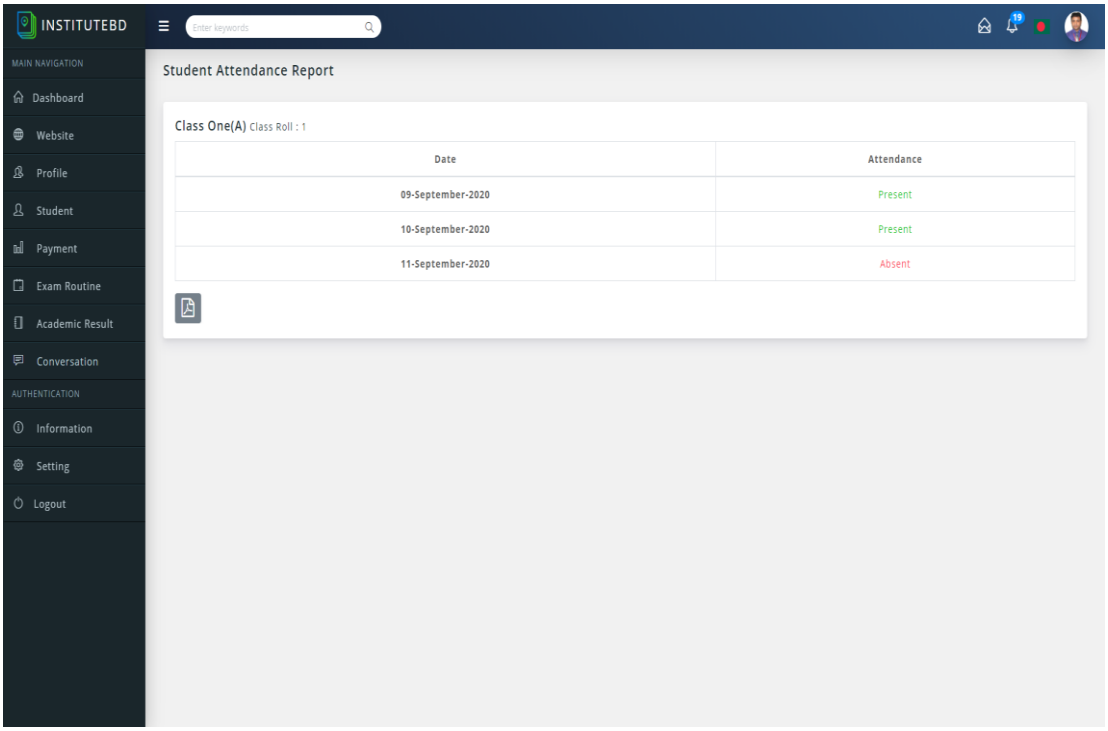


Fig 4.1.8D: Student Attendance Report

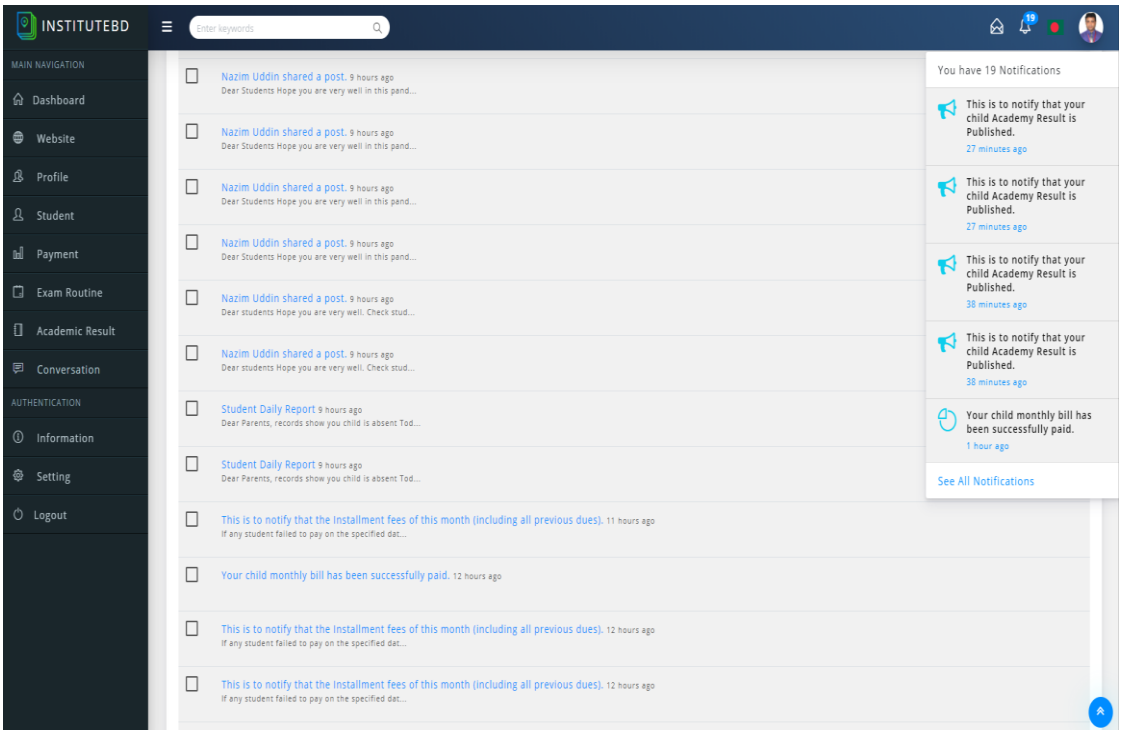


Fig 4.1.8E: Parent Notification Page

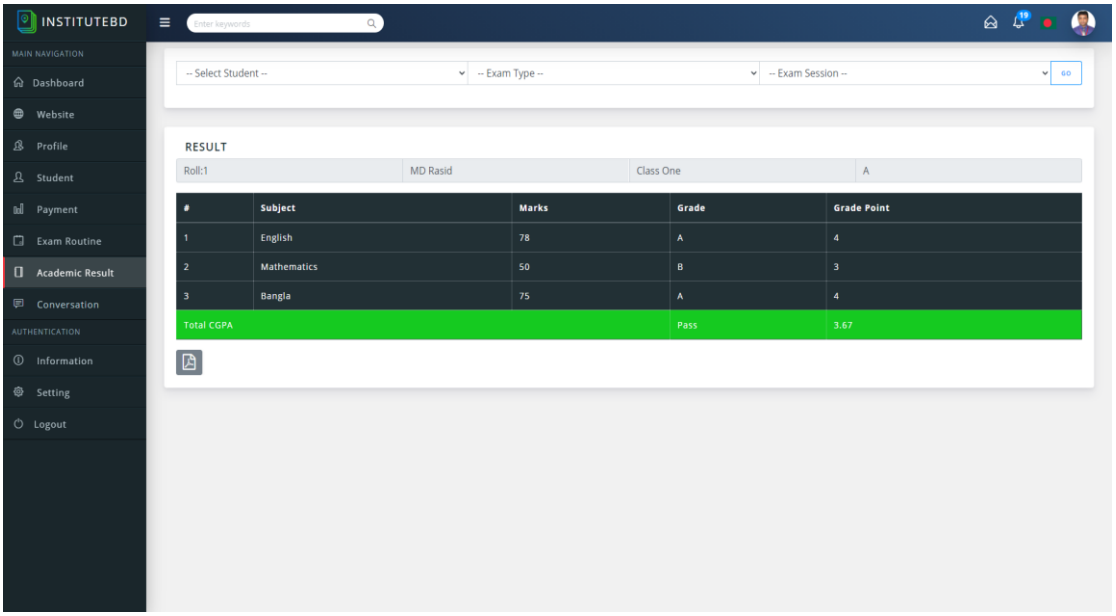


Fig 4.1.8F: Student Result

4.1.9 Front-End Design for Web Management panel

The user will be able to control the full website of the organization (School) through the web management panel .And this system has multiple web templates .The user can use and customize any template as per his choice .The user can also set the

domain name of his choice .And the organization's notices, galleries, event administration, academies, facilities, co-curricular activities and lists of faculty members, chairman and principal messages can be shared on their website.

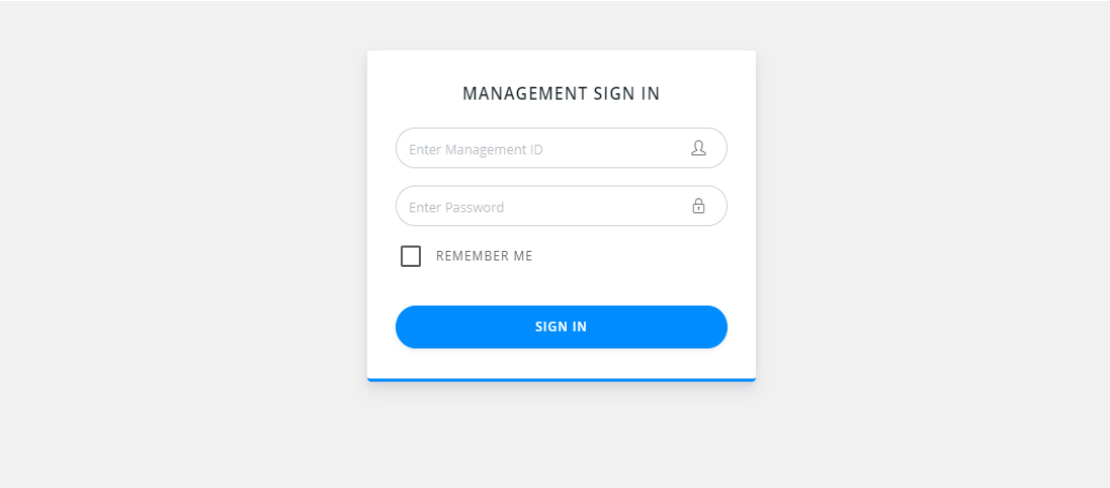


Fig 4.1.9A: Management Login

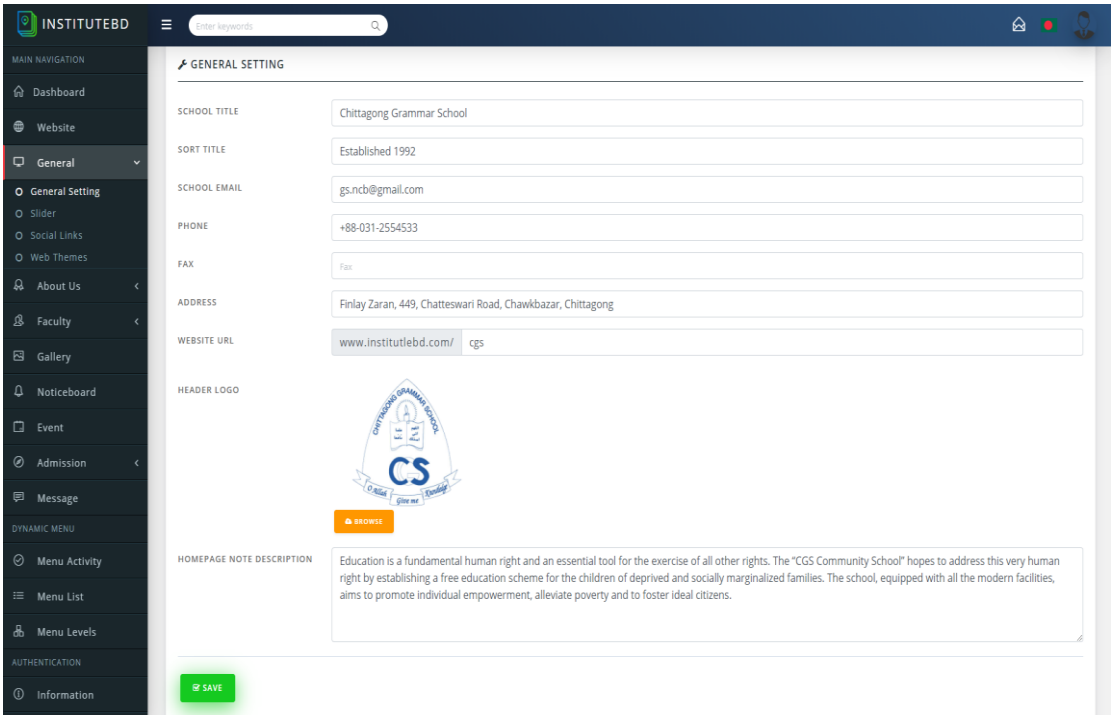


Fig 4.1.9B: General Web Page Setting

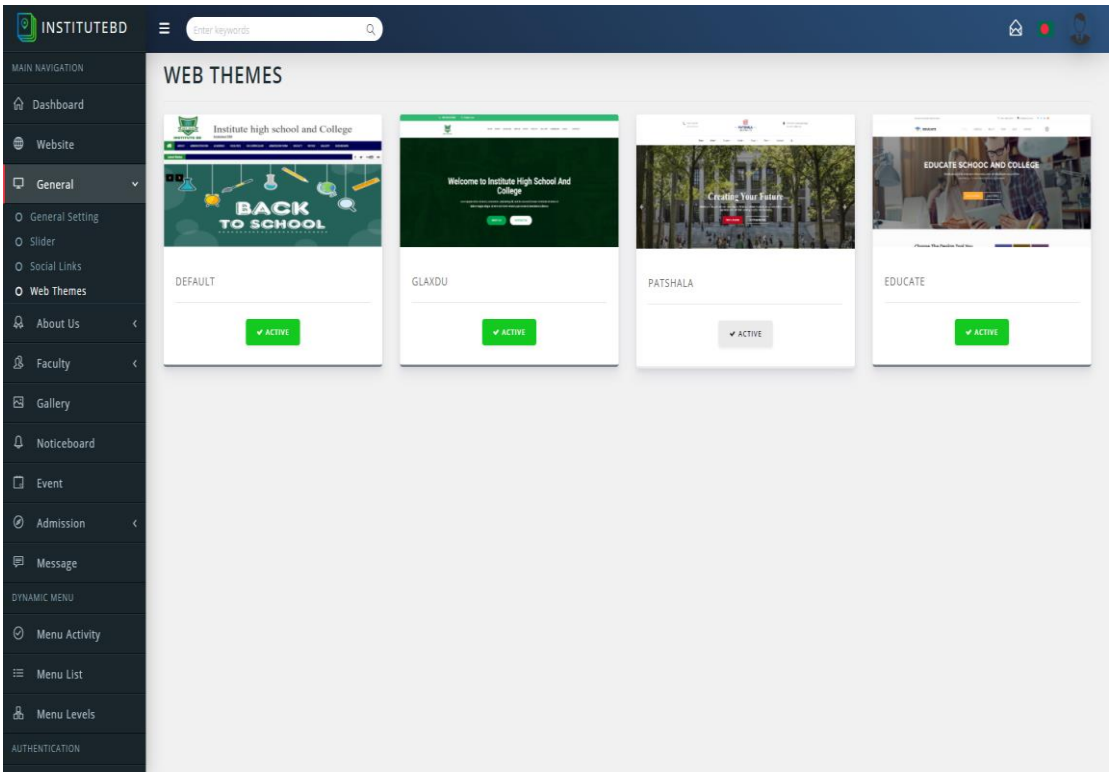


Fig 4.1.9C: Web Themes Select

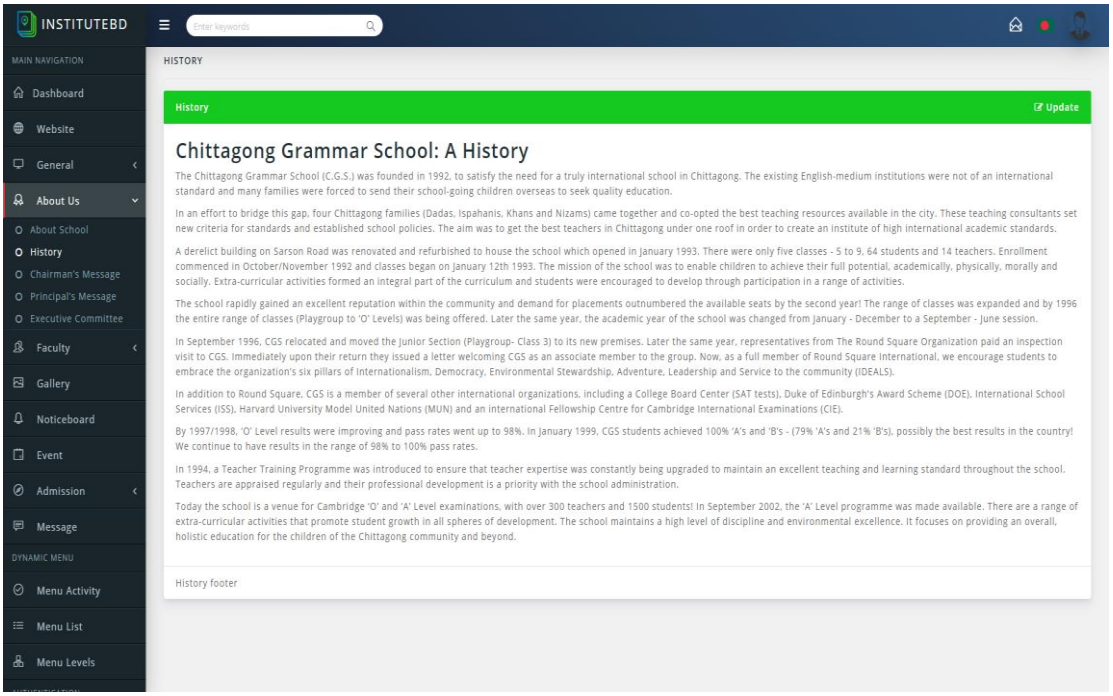


Fig 4.1.9D: Institute History Setting

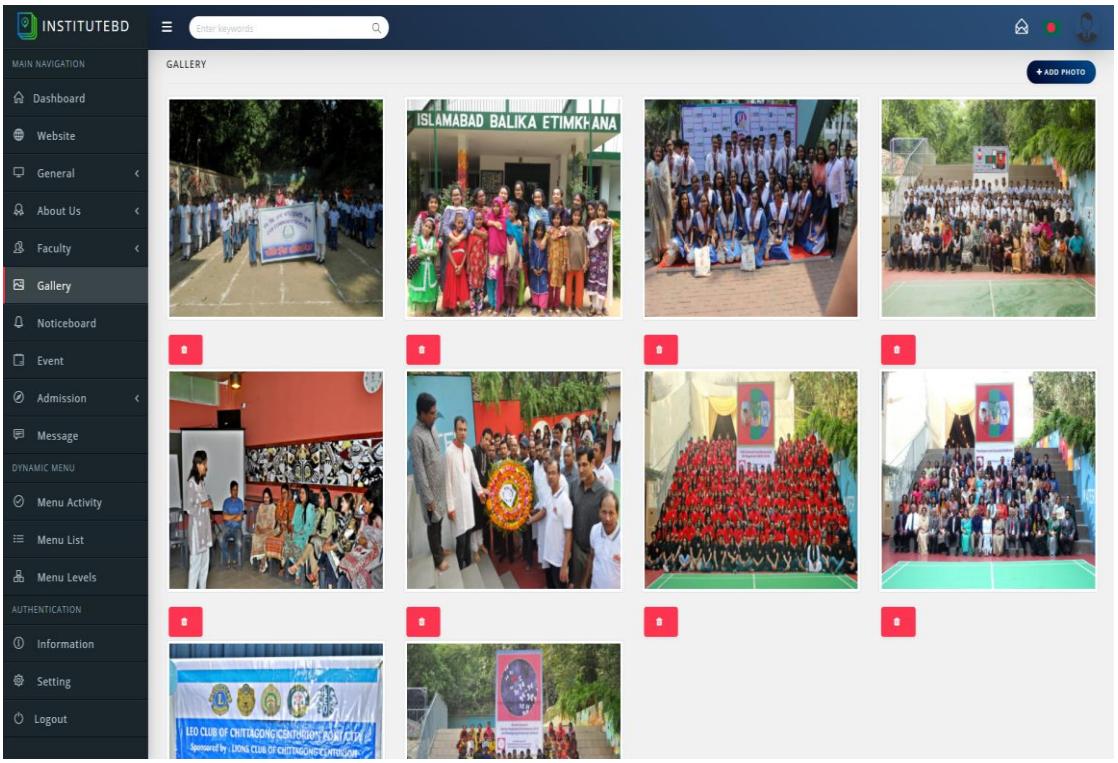


Fig 4.1.9E: Institute Gallery

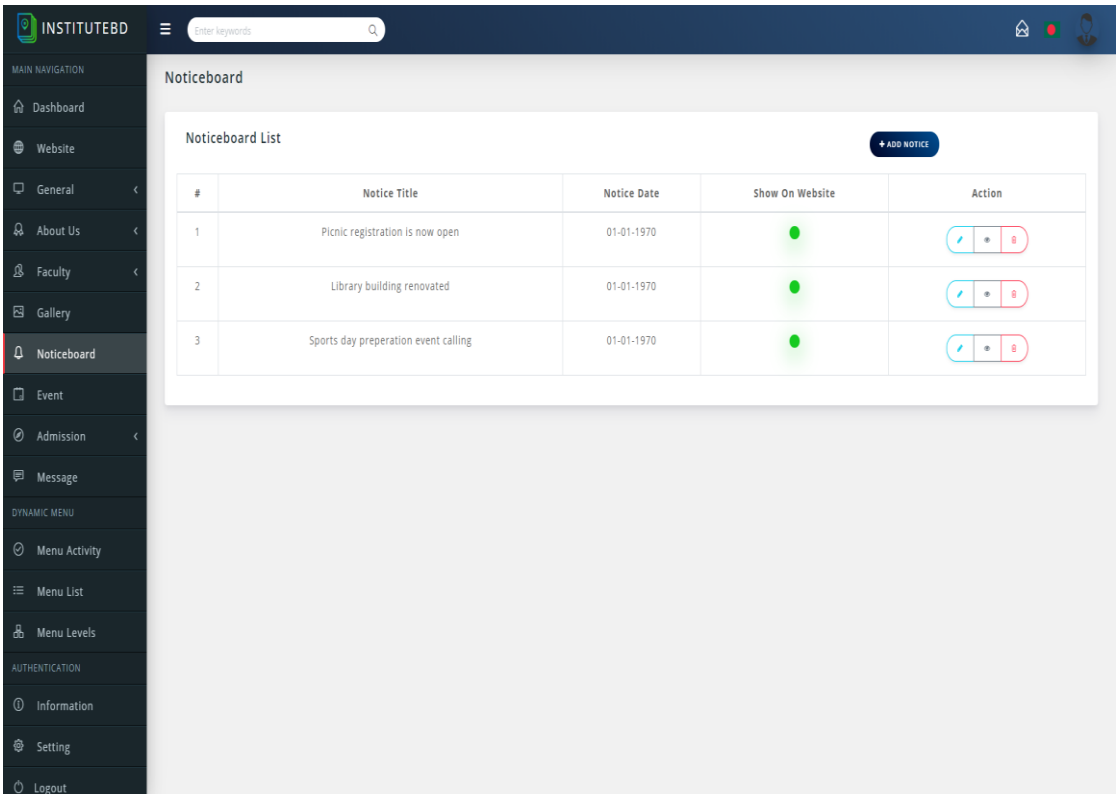


Fig 4.1.9F: Noticeboard

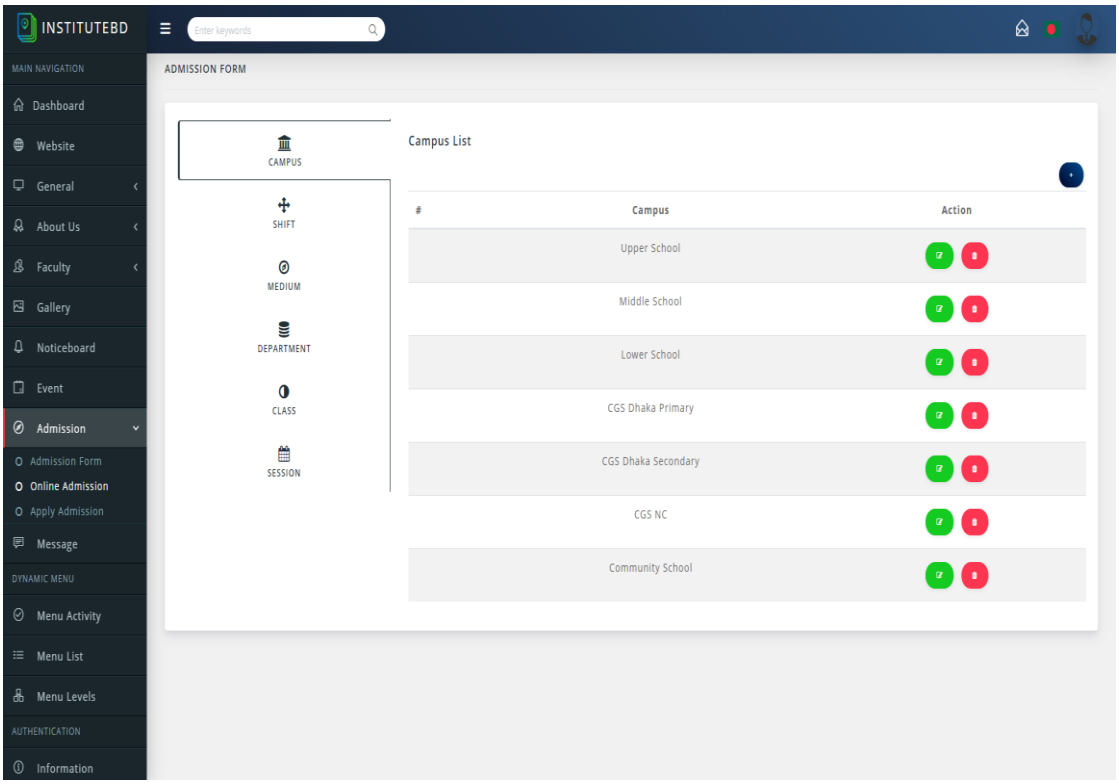


Fig 4.1.9G: Online Admission Setting

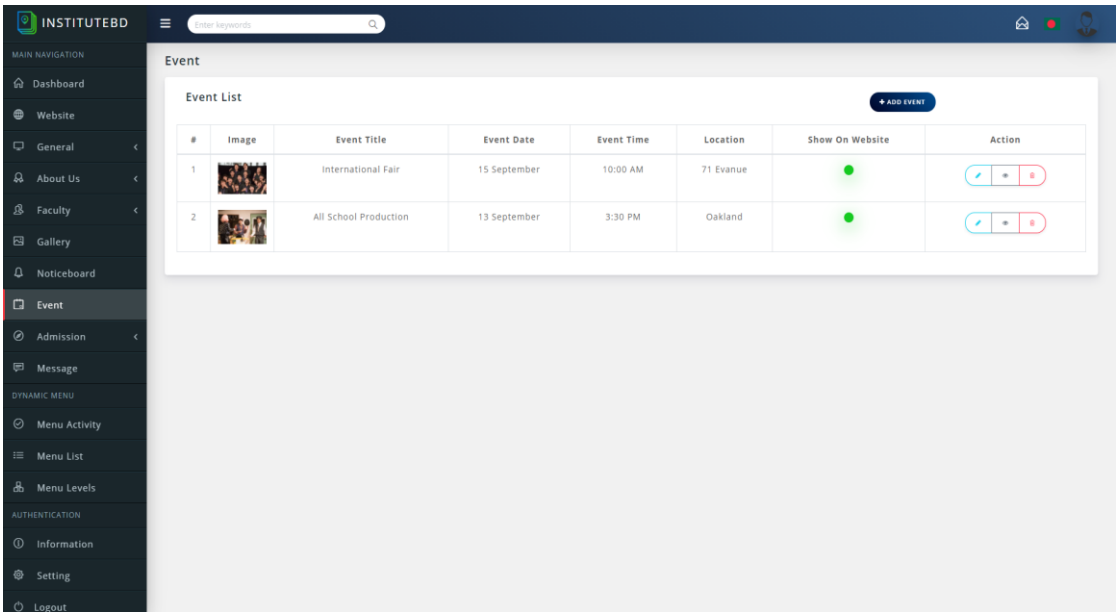


Fig 4.1.9H: Event

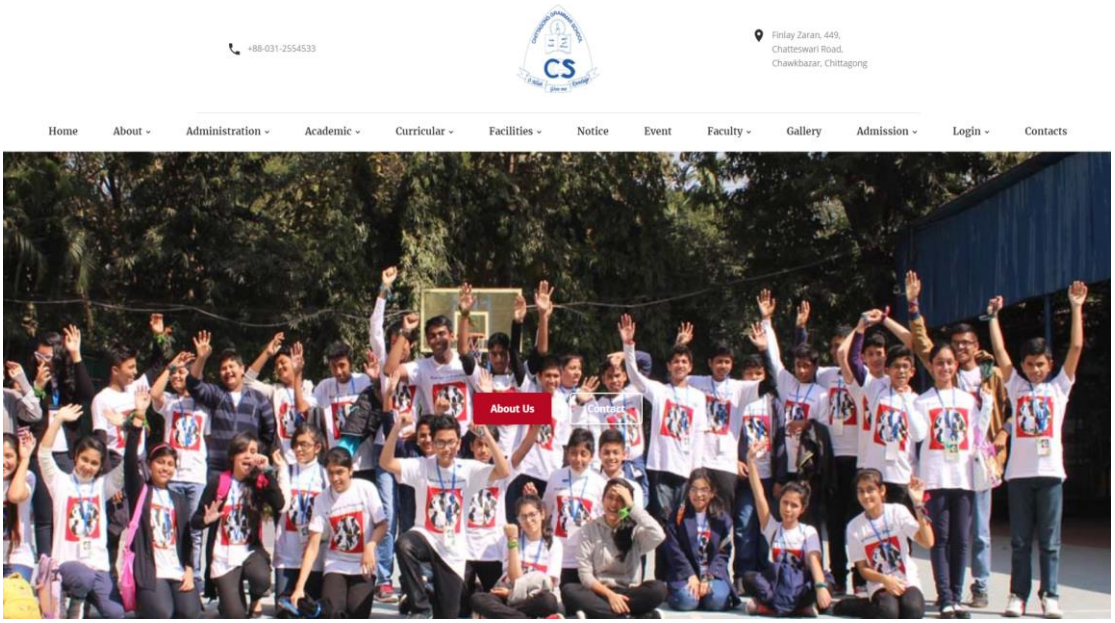


Fig 4.1.9I: Institute Web Page

4.2 Back-End Design

Back-end is not visible for the user in the application. In any application the back-end give service for user. User give input through front-end part then back-end part process the input. It's the behind-the-scenes functionality – the brain of a site. By using PHP-Storm, we can build easily back-end design.

4.3 Interaction Design and UX

Interaction design is a control that watches the interaction between a framework and its client [13].- Actually interaction design is the cycles which comprehend the client issue space, measure the issue and discover the outcomes, preform activities by the regarding results and take care of the issue. Then again, client experience centers on the general understanding between a client and an application. In our application, there are a few highlights that can cooperate with the client. One of the component is network creation, which can impart data or insight starting with one then onto the next. That could be inspiring the client to the application. For UX we are attempted to give some incredible experience by our application. We keep our framework basic and simpler for better understanding and execution for the client. We endeavored to diminish the information stacking time on our application and that exertion will be proceeded

4.4 Implementation Requirements

First of all we want develop front end back end and database Relation of this app. We need some IDE and need some programming language markup language styling and database. This app is an android and web based app. So this app can be used web browser and android mobile.

We need some tools like XAMPP to turn our machine into local server. For front-end design we need HTML, CSS, JavaScript and Bootstrap. Used MySQL database for store data and need PHP and LARAVEL to process data and interact with the database.

CHAPTER-05

IMPLEMENTATION AND TESTING

5.1 Implementation of Database

In this piece of database usage where we introduced the DMBS on the dependent on particular of equipment, streamline the database to run the best part on the equipment and the product stage lastly load the information subsequent to making database.

5.1.1 Database Design

Database configuration is the way toward creating a detail information model of database. This information model contains all the required intelligent and physical plan decisions and physical stockpiling boundaries expected to produce a plan in an information definition language, which would then be able to be utilized to make a database. A completely ascribed information model contains definite credits for every substance [8]. A database gathers and stores information in such sorted out way that information prerequisites are fulfilled by the database. The overall goal is to make data access simple, fast, cheap and adaptable for the client. There are likewise some particular targets like regulator repetition from disappointment, protection, security and execution. An assortment of relative records makes up a table. To plan and store information to the required structures database tables are readied. Two fundamental setting for a database are:

- Primary key: This field is interesting for all the record events

- Foreign key: This field used to set connection between tables Normalization is a strategy to dodge repetition in the tables.

5.1.2 Database Management System

A database management system (DBMS) is system software for creating and managıng databases The DBMS provides users and programmers with a systematic way to create, retrieve, update and manage data In our application we used MYSQL.

5.1.3 MySQL

MYSQL is a very popular source program related to SQL database relationships. MYSQL is one of the best RDBMS used to develop web-based applications. We use MYSQL as a database for our proposed system. It costs well. There is no doubt that Oracle creates an awesome database but the associated costs will prevent many MYSQL for free. It can be installed and used but you do not pay anything in the process. Now we have shown our project back-end database table in bellow:

Structure | SQL | Search | Query | Export | Import | Operations | Privileges | Routines | Events | Triggers

Table	Action	Rows	Type	Collation	Size	Overhead
abouts	Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
admission_forms	Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
buy_sms	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
chairmen	Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
domain_checkers	Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
domain_transfers	Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_unicode_ci	32.0 KiB	-
events	Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
executive_committees	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
gallaries	Browse Structure Search Insert Empty Drop	13	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
headers	Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_unicode_ci	32.0 KiB	-
histories	Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
infos	Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
invoices	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
menu_activeties	Browse Structure Search Insert Empty Drop	20	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
messages	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
migrations	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
monthly_payments	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
multi_users	Browse Structure Search Insert Empty Drop	10	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
notices	Browse Structure Search Insert Empty Drop	6	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
online_admissions	Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
online_admission_campuses	Browse Structure Search Insert Empty Drop	8	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
online_admission_classes	Browse Structure Search Insert Empty Drop	9	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
online_admission_departments	Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
online_admission_media	Browse Structure Search Insert Empty Drop	3	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
online_admission_sessions	Browse Structure Search Insert Empty Drop	3	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
online_admission_shifts	Browse Structure Search Insert Empty Drop	3	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
online_admission_student_infos	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
paid_payments	Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
password_resets	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	32.0 KiB	-
principals	Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
single_manus	Browse Structure Search Insert Empty Drop	7	InnoDB	utf8mb4_unicode_ci	48.0 KiB	-
sliders	Browse Structure Search Insert Empty Drop	12	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
sms_send_histories	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
socials	Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
stafs	Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
subscriptions	Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
sub_domains	Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_unicode_ci	32.0 KiB	-
s_m_s_invoices	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
teachers	Browse Structure Search Insert Empty Drop	10	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
users	Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_unicode_ci	48.0 KiB	-
vouchers	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	32.0 KiB	-
41 tables	Sum	138	InnoDB	utf8mb4_general_ci	800.0 KiB	0 B

Table	Action	Rows	Type	Collation	Size	Overhead
accountant_users	Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_unicode_ci	32.0 KiB	-
attendances	Browse Structure Search Insert Empty Drop	33	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
books	Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
borrows	Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
cash_payments	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
class_by_teachers	Browse Structure Search Insert Empty Drop	17	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
class_teachers	Browse Structure Search Insert Empty Drop	3	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
class_times	Browse Structure Search Insert Empty Drop	9	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
departments	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
exams	Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
exam_controller_users	Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_unicode_ci	32.0 KiB	-
exam_routings	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
exam_sessions	Browse Structure Search Insert Empty Drop	4	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
exam_types	Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
expenses	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
expense_categories	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
gradings	Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
grading_subjects	Browse Structure Search Insert Empty Drop	11	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
grading_systems	Browse Structure Search Insert Empty Drop	7	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
guardian_students	Browse Structure Search Insert Empty Drop	11	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
incomes	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
income_categories	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
librarian_users	Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_unicode_ci	32.0 KiB	-
library_members	Browse Structure Search Insert Empty Drop	4	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
management_users	Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_unicode_ci	32.0 KiB	-
notifications	Browse Structure Search Insert Empty Drop	157	InnoDB	utf8mb4_unicode_ci	80.0 KiB	-
notification_groups	Browse Structure Search Insert Empty Drop	28	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
online_classrooms	Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
online_classroom_homeworks	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
online_classroom_homework_comments	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
online_classroom_joins	Browse Structure Search Insert Empty Drop	11	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
online_classroom_posts	Browse Structure Search Insert Empty Drop	3	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
online_classroom_post_comments	Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-

parent_students	Browse	Structure	Search	Insert	Empty	Drop	6	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
parent_users	Browse	Structure	Search	Insert	Empty	Drop	5	InnoDB	utf8mb4_unicode_ci	32.0 KiB	-
pay_payments	Browse	Structure	Search	Insert	Empty	Drop	6	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
pay_payment_titles	Browse	Structure	Search	Insert	Empty	Drop	1	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
personal_students	Browse	Structure	Search	Insert	Empty	Drop	11	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
receive_payments	Browse	Structure	Search	Insert	Empty	Drop	30	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
receive_payment_titles	Browse	Structure	Search	Insert	Empty	Drop	10	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
register_users	Browse	Structure	Search	Insert	Empty	Drop	2	InnoDB	utf8mb4_unicode_ci	32.0 KiB	-
sections	Browse	Structure	Search	Insert	Empty	Drop	12	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
student_bill_payments	Browse	Structure	Search	Insert	Empty	Drop	120	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
student_classes	Browse	Structure	Search	Insert	Empty	Drop	8	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
student_class_histories	Browse	Structure	Search	Insert	Empty	Drop	11	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
student_current_classes	Browse	Structure	Search	Insert	Empty	Drop	11	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
student_current_class_subjects	Browse	Structure	Search	Insert	Empty	Drop	11	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
student_marks	Browse	Structure	Search	Insert	Empty	Drop	33	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
student_permanent_addresses	Browse	Structure	Search	Insert	Empty	Drop	11	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
student_present_addresses	Browse	Structure	Search	Insert	Empty	Drop	11	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
student_submit_homeworks	Browse	Structure	Search	Insert	Empty	Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
student_users	Browse	Structure	Search	Insert	Empty	Drop	11	InnoDB	utf8mb4_unicode_ci	32.0 KiB	-
subjects	Browse	Structure	Search	Insert	Empty	Drop	11	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
subject_by_classes	Browse	Structure	Search	Insert	Empty	Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
subject_in_classes	Browse	Structure	Search	Insert	Empty	Drop	7	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
teacher_addresses	Browse	Structure	Search	Insert	Empty	Drop	7	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
teacher_bill_payments	Browse	Structure	Search	Insert	Empty	Drop	6	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
teacher_profiles	Browse	Structure	Search	Insert	Empty	Drop	7	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
teacher_users	Browse	Structure	Search	Insert	Empty	Drop	7	InnoDB	utf8mb4_unicode_ci	32.0 KiB	-
term_results	Browse	Structure	Search	Insert	Empty	Drop	22	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
60 tables	Sum						693	InnoDB	utf8mb4_general_ci	1.1 MiB	0 B

Fig 4.2.1: All Tables of database.

Browse | Structure | SQL | Search | Insert | Export | Import | Privileges | Operations | Tracking | Triggers

Table structure | Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	id	int(10)		UNSIGNED	No	None		AUTO_INCREMENT	Change Drop More
2	name	varchar(255)	utf8mb4_unicode_ci		No	None			Change Drop More
3	client_name	varchar(255)	utf8mb4_unicode_ci		No	None			Change Drop More
4	type	varchar(255)	utf8mb4_unicode_ci		No	None			Change Drop More
5	slug	varchar(255)	utf8mb4_unicode_ci		No	None			Change Drop More
6	logo	varchar(255)	utf8mb4_unicode_ci		No	None			Change Drop More
7	email	varchar(100)	utf8mb4_unicode_ci		No	None			Change Drop More
8	number	varchar(20)	utf8mb4_unicode_ci		No	None			Change Drop More
9	subdomain	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
10	password	varchar(255)	utf8mb4_unicode_ci		No	None			Change Drop More
11	link	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
12	url	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
13	reference	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
14	verifyToken	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
15	theme	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
16	status	tinyint(1)			No	None			Change Drop More
17	paidStatus	tinyint(1)			Yes	NULL			Change Drop More
18	due_date	varchar(25)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
19	remember_token	varchar(100)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
20	created_at	timestamp			Yes	NULL			Change Drop More
21	updated_at	timestamp			Yes	NULL			Change Drop More

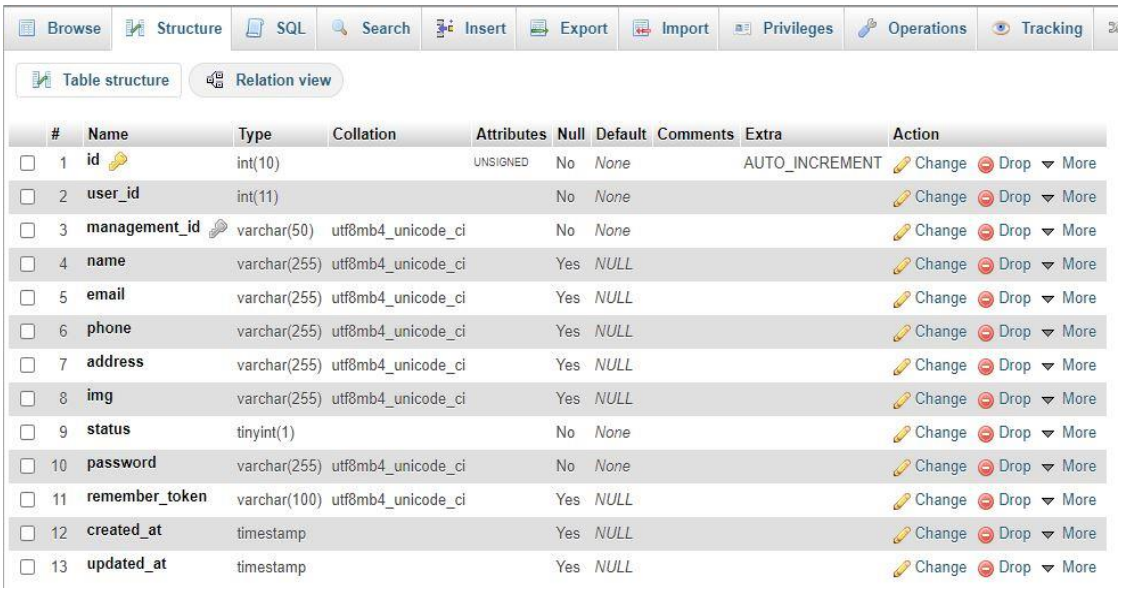
Fig 4.2.1: User table

Browse | Structure | SQL | Search | Insert | Export | Import | Privileges | Operations | Tracking

Table structure | Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	id	int(10)		UNSIGNED	No	None		AUTO_INCREMENT	Change Drop More
2	user_id	int(11)			No	None			Change Drop More
3	register_id	varchar(50)	utf8mb4_unicode_ci		No	None			Change Drop More
4	name	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
5	email	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
6	phone	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
7	address	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
8	img	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
9	status	tinyint(1)			No	None			Change Drop More
10	password	varchar(255)	utf8mb4_unicode_ci		No	None			Change Drop More
11	remember_token	varchar(100)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
12	created_at	timestamp			Yes	NULL			Change Drop More
13	updated_at	timestamp			Yes	NULL			Change Drop More

Fig 4.2.3: Register User Table

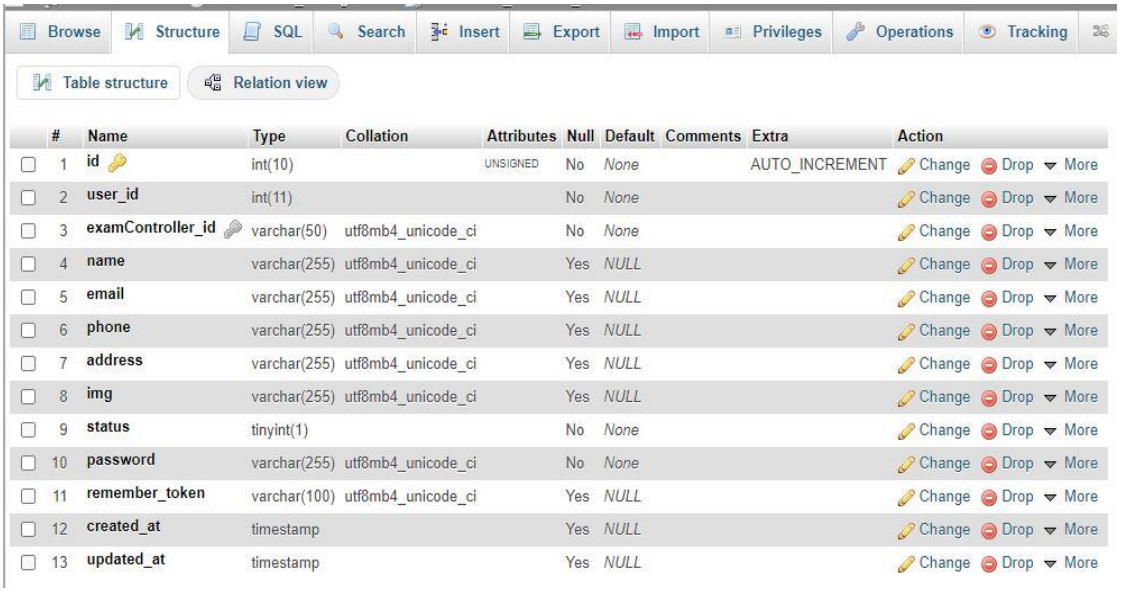


Browse | Structure | SQL | Search | Insert | Export | Import | Privileges | Operations | Tracking

Table structure | Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	id	int(10)		UNSIGNED	No	None		AUTO_INCREMENT	Change Drop More
2	user_id	int(11)			No	None			Change Drop More
3	management_id	varchar(50)	utf8mb4_unicode_ci		No	None			Change Drop More
4	name	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
5	email	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
6	phone	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
7	address	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
8	img	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
9	status	tinyint(1)			No	None			Change Drop More
10	password	varchar(255)	utf8mb4_unicode_ci		No	None			Change Drop More
11	remember_token	varchar(100)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
12	created_at	timestamp			Yes	NULL			Change Drop More
13	updated_at	timestamp			Yes	NULL			Change Drop More

Fig 4.2.4: Management User Table

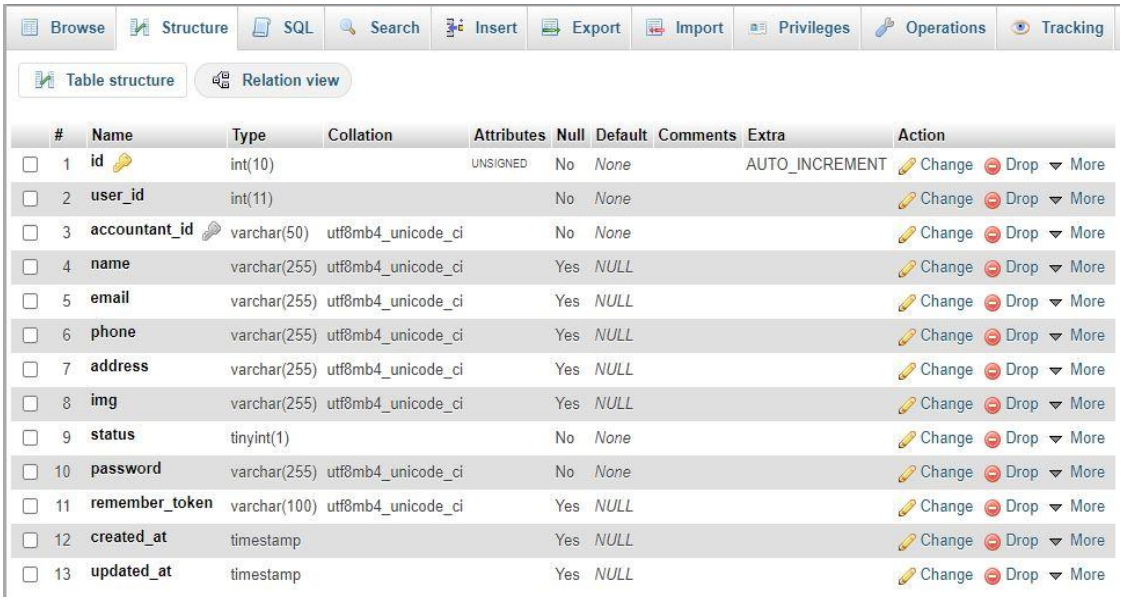


Browse | Structure | SQL | Search | Insert | Export | Import | Privileges | Operations | Tracking

Table structure | Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	id	int(10)		UNSIGNED	No	None		AUTO_INCREMENT	Change Drop More
2	user_id	int(11)			No	None			Change Drop More
3	examController_id	varchar(50)	utf8mb4_unicode_ci		No	None			Change Drop More
4	name	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
5	email	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
6	phone	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
7	address	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
8	img	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
9	status	tinyint(1)			No	None			Change Drop More
10	password	varchar(255)	utf8mb4_unicode_ci		No	None			Change Drop More
11	remember_token	varchar(100)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
12	created_at	timestamp			Yes	NULL			Change Drop More
13	updated_at	timestamp			Yes	NULL			Change Drop More

Fig 4.2.5: ExamController User Table

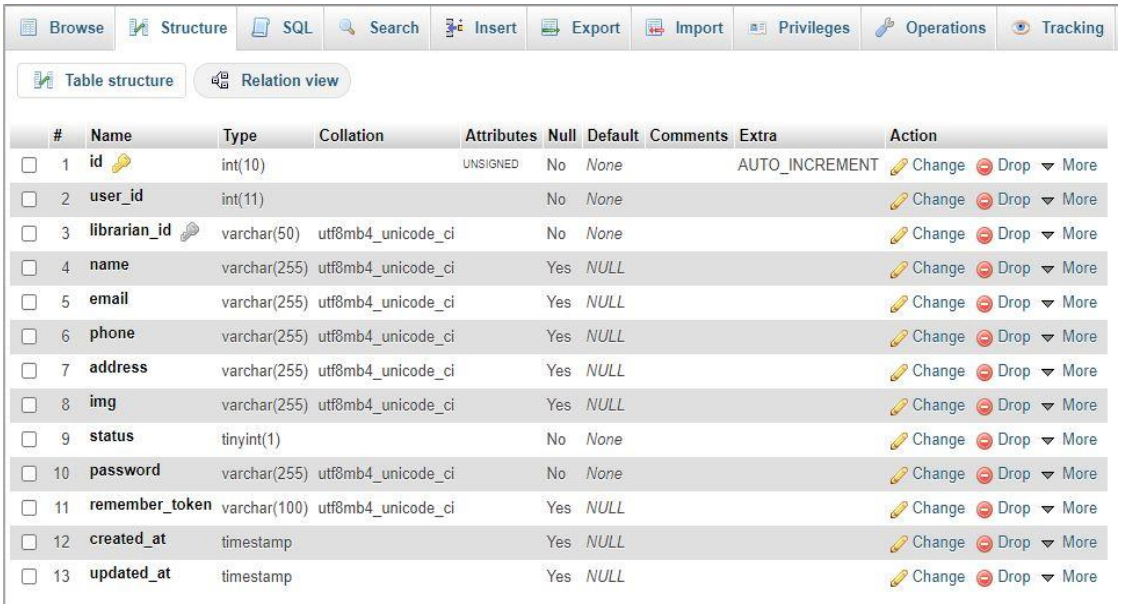


Browse | Structure | SQL | Search | Insert | Export | Import | Privileges | Operations | Tracking

Table structure | Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	id	int(10)		UNSIGNED	No	None		AUTO_INCREMENT	Change Drop More
2	user_id	int(11)			No	None			Change Drop More
3	accountant_id	varchar(50)	utf8mb4_unicode_ci		No	None			Change Drop More
4	name	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
5	email	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
6	phone	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
7	address	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
8	img	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
9	status	tinyint(1)			No	None			Change Drop More
10	password	varchar(255)	utf8mb4_unicode_ci		No	None			Change Drop More
11	remember_token	varchar(100)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
12	created_at	timestamp			Yes	NULL			Change Drop More
13	updated_at	timestamp			Yes	NULL			Change Drop More

Fig 4.2.6: Accountant User Table



Browse | Structure | SQL | Search | Insert | Export | Import | Privileges | Operations | Tracking

Table structure | Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	id	int(10)		UNSIGNED	No	None		AUTO_INCREMENT	Change Drop More
2	user_id	int(11)			No	None			Change Drop More
3	librarian_id	varchar(50)	utf8mb4_unicode_ci		No	None			Change Drop More
4	name	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
5	email	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
6	phone	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
7	address	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
8	img	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
9	status	tinyint(1)			No	None			Change Drop More
10	password	varchar(255)	utf8mb4_unicode_ci		No	None			Change Drop More
11	remember_token	varchar(100)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
12	created_at	timestamp			Yes	NULL			Change Drop More
13	updated_at	timestamp			Yes	NULL			Change Drop More

Fig 4.2.7: Librarian User table

Browse | Structure | SQL | Search | Insert | Export | Import | Privileges | Operations | Tracking

Table structure | Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	id	int(10)		UNSIGNED	No	None		AUTO_INCREMENT	Change Drop More
2	user_id	int(11)			No	None			Change Drop More
3	teacher_account_id	varchar(50)	utf8mb4_unicode_ci		No	None			Change Drop More
4	department	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
5	password	varchar(255)	utf8mb4_unicode_ci		No	None			Change Drop More
6	remember_token	varchar(100)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
7	created_at	timestamp			Yes	NULL			Change Drop More
8	updated_at	timestamp			Yes	NULL			Change Drop More

Fig 4.2.8: Teacher User Table

Browse | Structure | SQL | Search | Insert | Export | Import | Privileges | Operations | Tracking

Table structure | Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	id	int(10)		UNSIGNED	No	None		AUTO_INCREMENT	Change Drop More
2	user_id	int(11)			No	None			Change Drop More
3	student_account_id	varchar(50)	utf8mb4_unicode_ci		No	None			Change Drop More
4	status	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
5	password	varchar(255)	utf8mb4_unicode_ci		No	None			Change Drop More
6	remember_token	varchar(100)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
7	created_at	timestamp			Yes	NULL			Change Drop More
8	updated_at	timestamp			Yes	NULL			Change Drop More

Fig 4.2.9: Student User Table

Browse | Structure | SQL | Search | Insert | Export | Import | Privileges | Operations | Tracking

Table structure | Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	id	int(10)		UNSIGNED	No	None		AUTO_INCREMENT	Change Drop More
2	user_id	int(11)			No	None			Change Drop More
3	parent_account_id	varchar(50)	utf8mb4_unicode_ci		No	None			Change Drop More
4	name	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
5	mobile	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
6	email	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
7	address	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
8	img	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
9	status	varchar(255)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
10	password	varchar(255)	utf8mb4_unicode_ci		No	None			Change Drop More
11	remember_token	varchar(100)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
12	created_at	timestamp			Yes	NULL			Change Drop More
13	updated_at	timestamp			Yes	NULL			Change Drop More

Fig 4.2.10: Parent User Table

5.2 Implementation and Interaction

The architecture of a software system characterizes that system as far as parts and communications among those segments.

In genuine world, connection can discovered all over. Cooperation is the key to make a system dynamic and alluring to client. It's important to make a system intuitive and we additionally attempt to. As referenced in before, we additionally incorporate some extraordinary component to associate our system like a network for understudy and study update. Our application is effectively actualized and the association of our application with the clients hushes up noteworthy.

5.3 Testing Implementation

Table 5.3: Test Case Table for Edu Manager: A learning management system.

Test Case	Test Input	Expected Output	Actual Output	Result	Tested On
1.Install Application	Tested on localhost	Successful Install on localhost	Install successful.	Passed	01-09-2020
2.Registration	Without Registration.	To redirect to access the preference from home	Imposed the Restriction.	Passed	01-09-2020
3.Username or ID	Blank or incorrect username or ID.	To warn that correct username or ID must be entered.	Showed the warning.	Passed	03-09-2020
4.Password	Blank or incorrect	To warn that	Showed the	Passed	03-09-2020

	Password .	correct password must be entered.	warning.		
5. Student List	Click on the Student List button	To show the Student List Information.	Showed Student List Information Successful.	Passed	03-09-2020
6. Teacher List	Click on the Teacher List button	To show the Teacher List Information.	Showed Teacher List Information Successful.	Passed	03-09-2020
7. Library book List	Click on the Library book List button	To show the Library book List Information.	Showed Library book List Information Successful.	Passed	03-09-2020
8. Library Member List	Click on the Library Member List button	To show the Library Member List Information.	Showed Library Member List Information Successf	Passed	03-09-2020

			ul.		
9. Student Payment	Click on the Student Payment History button	To show the Student Payment History Information.	Showed Student Payment History Information Successful.	Passed	03-09-2020
10. Teacher Salary	Click on the Teacher Salary Pay History button	To show the Teacher Salary Pay History Information.	Showed Teacher Salary Pay History Information Successful.	Passed	03-09-2020
11.Admin Create New User	Input full name, email, mobile number , Unique Account ID and Password	To Create New User.	Create New User Successfully.	Passed	03-09-2020
12.Send SMS by Student or Teacher or	Select Student / Teacher / Guardian ,	Send SMS for Every user.	SMS Send Successful.	Passed	03-09-2020

Guardian	Input Message				
13. Admit New Student.	Input full name, email, mobile number , Address, Gender, Father's Name, Mother's Name, Selected Admission Class And Unique Class Roll , And Unique Account ID and Password	To Create New Student Account.	Admit New Student Successfully.	Passed	03-09-2020
14. Create New Teacher Account.	Input full name, email, mobile number , Address, Gender,	To Create New Teacher Account.	Create New Teacher Account Successfully.	Passed	03-09-2020

	Departme nt , And Unique Account ID and Password				
15. Create New Guardian Account.	Input full name, email, mobile number , Address, Selected Student, And Unique Account ID and Password	To Create New Guardian Account.	Create New Guardian Account Successf ully.	Passed	03-09-2020
16. Create Class Routine	Input Class Time, Subject, Class & section, Class Teacher, Day	To Create Class Routine	Class Routine Create Successf ully.	Passed	03-09-2020
17.Promot ion a New Class Student	Selected Current Class & Section,	Update New Class Student	Update New Class Student	Passed	03-09-2020

	Selected New Class & Section, Selected Exam for New class roll automatic ,Check Only Passing Student Or Not		Successfully		
18. Create Exam Grading	Input total marks, Passed marks, letter grad , mark distribution up to down, grad point / GPA	To Create New Grading	Show Successfully Create message.	Passed	03-09-2020
19. Create Exam & Exam Routine	Input Exam Term, Exam	To Create New Exam	Show Successfully Message	Passed	03-09-2020

	Session, Start Date, End Date , Upload Exam Routine		Create New Exam.		
20. Published Student Result	Selected Exam Term & Session, passed Published button	Published Result	Show Successfully Message Published Student Academy Result.	Passed	03-09-2020
21.Student Fee's Collected	Search Student , Payment Month ,Year , pay Amount	Payment Complete	Payment Collected Successfully	Passed	03-09-2020
22.Teacher Salary Pay	Search Teacher, Pay Amount	Payment Complete	Payment Pay Successfully	Passed	03-09-2020
23.Income	Input Income Category, Income Amount	To Add Income	Income Add Successfully	Passed	03-09-2020
24.Expenc	Input	To Add	Expense	Passed	03-09-

e	Expense Category, Expense Amount	Expense	Add Successfully		2020
25. Profit Report	Click on the Report button	To show the Report Information.	Showed Report Information Successful.	Passed	03-09-2020
26. Add Library Member	Selected Student/Teacher/Staff ,Input Library Id Number	To Add New Member	Member Add Successfully	Passed	04-09-2020
26. Add Library Book	Input book title, ISBN number, Author, Rack Number, book number, subject quantity, entry number.	To Add New Book	Book Add Successfully	Passed	04-09-2020
26.Issue	Search	To Issue	Issue	Passed	04-09-

Book	book, Search Member, Issue Date	book	Book Successfully		2020
27. Teacher Login	Valid Username, password	Login Dashboard	Teacher login successfully	Passed	04-09-2020
28. Teacher Profile	Click on the Profile button.	To show the teacher profile information.	Showed teacher profile information successfully.	Passed	04-09-2020
29. Teacher Profile Update	Input full name, full address, email, department, mobile and more info.	To update Teacher profile information.	Update teacher Profile information.	Passed	04-09-2020
30. Student Attendance	Search Class & section, Input date, check	To Attendance Create.	Attendance Create Successfully.	Passed	04-09-2020

	attend student				
31. Submit Marks	Search Class & section, Input Marks	To Submit Student Marks	Student Marks Submit Successfully	Passed	04-09-2020
32. Virtual Classroom	Click on the Classroom button.	To show the Classroom information.	Showed Classroom information successfully.	Passed	04-09-2020
33. Teacher Logout	Click on the Logout button.	To logout from that teacher account	Logged out Successfully.	Passed	04-09-2020
34. Student Login	Valid Username, password	Login Dashboard	Student login successfully	Passed	04-09-2020
35. Student Profile	Click on the Profile button.	To show the Student profile information.	Showed Student profile information successfully.	Passed	04-09-2020
36. Student Profile	Input full name, full	To update Student profile	Update Student Profile	Passed	04-09-2020

Update	address, email, father's name, mother's name, mobile and more info.	information.	information.		
37. Student Result	Click on the Result button.	To show the Result information.	Showed Result information successfully.	Passed	04-09-2020
38. Student Payment	Click on the Payment button	To show the Payment Information.	Showed Payment Information Successful.	Passed	03-09-2020
39. Virtual Classroom	Click on the Classroom button.	To show the Classroom information.	Showed Classroom information successfully.	Passed	04-09-2020
40. Student Logout	Click on the Logout button.	To logout from that Student account	Logged out Successfully.	Passed	04-09-2020

41. Guardian Login	Valid Username, password	Login Dashboard	Guardian login successfully	Passed	04-09-2020
42. Guardian Profile	Click on the Profile button.	To show the Guardian profile information.	Showed Guardian profile information successfully.	Passed	04-09-2020
43. Guardian Profile Update	Input full name, full address, email, mobile and more info.	To update Guardian profile information.	Update Guardian Profile information.	Passed	04-09-2020
44. Chile/Student Information	Click on the Student button.	To show the Student information.	Showed Student information successfully.	Passed	04-09-2020
45. Guardian Logout	Click on the Logout button.	To logout from that Guardian account	Logged out Successfully.	Passed	04-09-2020

5.4 Test Result and Reports

Test report is expected to reflect testing brings about a proper way, which offers a chance to gauge testing result rapidly. It is a report that records information got from an assessment try in an association way, portray the ecological or working conditions, and shows the correlation of test results with destinations.

In section 5.4. We indicated the test case, test input, anticipated yield, genuine yield lastly we discover our outcomes and the test result was very fruitful. Our application is fulfilled by the client. Ease of use testing looks at the accompanying component of the application.

- How simple it is to utilize the application?
- That it is so natural to gain proficiency with the application?
- How advantageous is the application to end - client?

So toward the end we can complete the outcomes as the advantages of convenience testing to the furthest limit of the client or less fatty. Application is simpler to utilize. Application is all the more promptly acknowledged by clients. Abbreviates the data for the new clients. Better UI for association. Sparing time for getting to more sites can be normal that, it will be a superior Learning Management System for Bangladesh.

CHAPTER-06

Impact on Society, Ethical Aspects, Sustainability

6.1 Impact on Society

There are many schools in Bangladesh now where most of the students also fail. Also there are many schools in which the standard of education is very low. The main reason for this is the communication gap between students and teachers. In addition, parents are not able to observe their child properly. These problems can be solved using our web application and communication between students and teachers will be built up. And communication between teachers and parents will increase. Due to the regular monitoring of the students, their interest in studying will increase. And the quality of reading will increase.

6.2 Ethical Aspects

Using in this web app will reduce the communication gap between students and teachers and increase the quality of study. Parents will be able to observe their children regularly. This will increase the quality and morality of the students. In addition, since the academy activities are automated, it will be much easier to manage the institutes. As a result, students will be able to focus more on improving the quality of their studies.

6.3 Sustainability Plan

This application will be used mainly by educational institutions, teachers, students and parents. Educational institutions can register management systems for their institutions through this application. And educational institutions will be able to create accounts for students, teachers and parents from their admin panel. Students, teachers and parents can login to their panel from the website of the educational institution. Only valid users can login here.

CHAPTER-07

Conclusion and Future Scope

7.1 Discussion and Conclusion

As of late, with the pace of innovative turn of events, individuals have become increasingly requesting as far as personal satisfaction, and the schools directors as of late hope to improve a presentation in their schools to get the most elevated pace of information and involvement with their understudy.

7.2 Scope for Further Developments

A few thoughts and highlights can be considered as a future work for this venture. These highlights can be summed up in the accompanying focuses:

- Let the student take a testing tests Online.
- Online Exam System.
- Let the student take an online affirmation.
- Bank of question per subject.
- Let instructor add a question to the bank of question.
- Let parent connection with different guardians.

APPENDIX

8.1 Appendix: Project Reflection

The last year journey, we acquired more knowledge and experience to complete our final project. I work hard to complete the final project and I huge time spend behind this project.

When I start our project work, this time we did not know how to complete this project. But proper plan helps us to complete this project. Every time supervisor sir supports us when we face any problem. At last, we are grateful to Almighty ALLAH and our honorable supervisor sir Dr. Sheak Rashed Haider Noori for his endless support and proper guideline throughout the session.

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