

# **COST-EFFECTIVE LEARNING MANAGEMENT SYSTEM**

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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 “**COST-EFFECTIVE LEARNING MANAGEMENT SYSTEM**”, submitted by **Mahmud Hosen(181-15-1862)** , **Sanjida Rahman Trisha(181-15-1929)** and **Jayoti Biswas(181-15-1787)** 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 21 May 2022.

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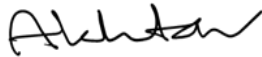
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## DECLARATION

We hereby declare that this project has been done by us under the supervision of **Dr.Md.Akhtaruzzaman, Director of Blended Learning Center & Associate Professor, 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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## ABSTRACT

This project is based on Google Classroom API, which integrates a number of features with it to be considered as a comprehensive LMS solution. Although Google Classroom is not an open source platform like Moodle, it is considered as one of the most stable and widely used platforms for teaching-learning across the world. However, it has a number of limitations including attendance, interactivities, grading and reporting, learning analytics, exam proctoring, etc. This study addressed these limitations to many extents and proposed a cost-effective solution with zero cost, zero complexity and zero maintenance - as an inclusive and equitable solution for different levels of education in Bangladesh. There are basically three types of LMSs –commercial (e.g., Canvas), open source and free (e.g., Moodle), and free but not open source (e.g., Google Classroom). According to the various websites, the cost for Canvas LMS per student per year is approximately \$25-40 in case of more than 1000 users. Although Moodle LMS is open source and free, the hosting cost is more than \$3,000 per month for 15,000 students with AWS and in the Moodle cloud it is \$1500 per year for 1000 users with 5GB storage each. Still, it is a good amount of money as a recurrent cost for any educational institutions in Bangladesh where education is free and mostly funded by the government. This LMS project based on Google Classroom API is totally free and no cost is required for hosting. This platform is widely known to the education community and could be highly simple, effective, and user-friendly. It may provide further flexibility and efficiency if it is considered within the Google Workspace for Education (previously known as G-Suite for Education), which is completely free to all educational institutions worldwide. The COVID-19 is a global epidemic. This disrupts many aspects of human life, including the educational sector. The COVID-19 epidemic has immense impacts on educational systems all across the world. This project is basically focused on the primary and secondary education sector considering challenges faced by the teachers while using Google Classroom or any type of LMS.

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# CHAPTER 1

## Introduction

### 1.1 Infrastructure:

Digital education is one of the most popular education systems all over the world. To prevent the spread of Covid-19, most countries throughout the world had stopped academic functions. As a result of the COVID-19 outbreak, several institutions turned to online schooling.

Google Classroom is a platform for blended and online learning. It is a platform for digital education as well. Using technology in the classroom is not a new concept. It was created in August 2014 to save teacher's time so that they could focus on teaching. Google Classroom is a free, web-based collaboration platform for creating, distributing, and grading coursework that is part of Google's G Suite for Education, now Google Workspace for Education. It is free for all educational institutions across the world. Every student who has an android phone can easily use the Google classroom app. Google Classroom witnessed a significant boost in participation during the Covid-19 pandemic. It was also used by particular research projects to engage in meaningful learning from across the globe. Google Classroom combines a set of Google Apps for Education. Students are welcomed to courses through a confidential code in the institution's database. The classes on Google Classroom are not open to the public. A person must be a member of the class and signed into a Google account to see anything in it. Each Google Classroom class creates its folder on the respective user's Google Drive, where students can upload assignments to be graded by their teacher.

Nowadays, digitalization of education has become one of the most important areas for the government of Bangladesh. National Policy has been formulated though enough budget has not yet been allocated. If we look at the budget of any advanced countries like the USA, Korea, Japan, UK etc, we can see that their senates give utmost importance to their education system. However, the situation is improving gradually in Bangladesh

## Senate State Budget Proposal SFYs 2022 and 2023, and Trailer Bill SFY 2021 Appropriations

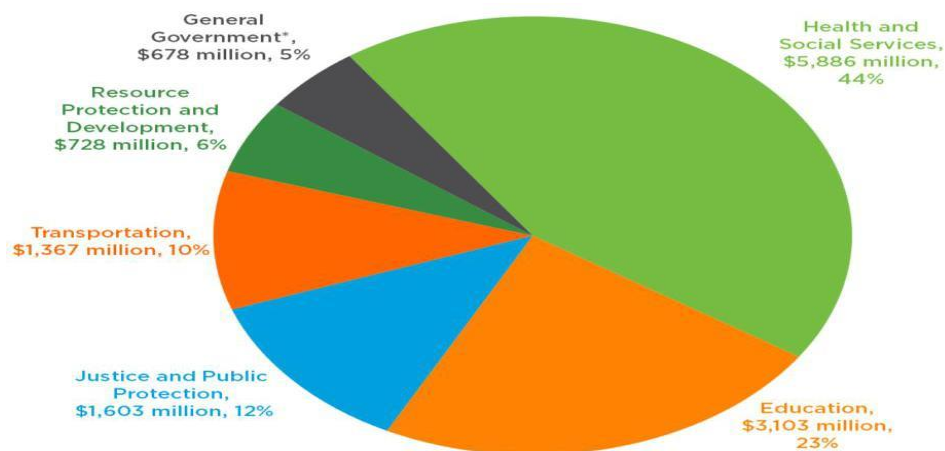


Figure 1.1.: Senate State Budget Proposal

In this scenario, it is seen that education belongs to the second position with a 23% budget and it is increasing remarkably day by day in Bangladesh.

Distance learning has become hugely famous as more teachers and students are using the power of the internet and going digital. If we look at the second scenario, we can understand that the student ordinarily likes to use the educational based platform for their education.

### Preferred Online Teaching Platform:

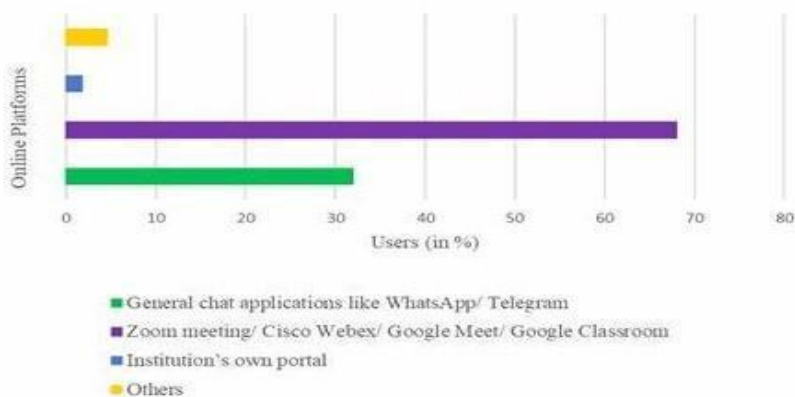


Figure 1.2: Preferred online learning platform

For those reasons we have developed an “online education platform” which is a web based application. This web application helps the teachers to communicate with their students easily and also helps to keep all the records for future. For entering this web app teachers have to sign up firstly. That’s why teachers have to register with their valid email and password. So all of the teacher’s information will gather into the database.

We are trying to implement an attendance and result system that's why teachers can get the record easily. So they will be able to save their time.

## **1.2 Motivation:**

Information, communication, technology etc become unavoidable for us day by day. Half of the teachers in our country don’t try to use the online education service because of the puzzle. Our web application is mainly for those teachers who are facing a puzzle from which our idea was generated.COVID-19 has had a significant impact on the educational system in Bangladesh, as it has in other countries throughout the world.

Bangladesh is a developing country. Its education system is also not so developed yet. But due to the pandemic situation, our school college had to shut down. And for a long period, all the educational activities were completely shut. After a certain period, all institutions started taking online classes upon the order of the ministry of education. But the problem is, our teachers or students were never used to having online classes. So, in the beginning, both parties suffered a lot of problems regarding the system. Also, our system was not developed enough. Teachers had to suffer in taking classes, taking attendance, taking exams or checking on students' performance, and so on.

And in all of this, a big problem was the media in which they were doing their educational activities. The Software was not well developed or maybe it was not appropriate for our students and teachers as well.

So, we decided to develop the website as was required. We wanted to solve all these problems through this application.

### **1.3 Objectives:**

The objective for this project can be understood by the name of the project “**Cost-effective learning management system for developing countries**”.

The objectives of this project are to make a dashboard so that teachers can decoratively view students' information and add some important features.

There were few features missing in Google classroom, such as attendance system, marking system, grading system, quiz average system, tabulation sheet, marking sheet, Downloading the necessary sheets and PDF making etc. Due to all these features being missing in Google classroom, teachers could use the website but they were not quite comfortable with it. So, if the mentioned features were added to the classroom, it would be much easier for the teachers. Because all the features were more time consuming when they were manual or teachers had to do them by using pen & papers or calculator or some other manual way.

By adding all these features to the classroom, all the markings, calculating numbers, quiz average all can be done automatically within just a few seconds to minutes.

Sometimes there's a huge number of students in a classroom, and making their results, taking attendance, and keeping the reports can show errors or mistakes in other words. And it's harder in a manual way. If the teachers use Google classroom in the updated version, most of their problems would be solved and it's way easier and more comfortable at the same time. Also it has a minimum chance of errors and sufferings of the teachers.

About the error issue, sometimes we see the manual result can get more pathetic as getting an error or wrong result is very common in case of counting the markings of exam papers. It may increase or decrease in some papers, so doing the result all the way from the beginning is a hassle and very much time and energy consuming. Which can easily be solved by the updated version of Google classroom. If any error happens in the updated version, teachers can easily just change in the mistaken part, and the rest of the result would be corrected automatically. So, it's way more comfortable and easy for the teachers as well as the students.

In other hand, there's some other websites that are being used the students and teachers in Bangladesh, but most of them has a common problem of getting hung when a large number of people are using at the same time, which would be solved if they use our updated project, so they can use anytime, anywhere with comfort.

#### **1.4 Features of this Project**

- Easy to conduct teacher and student
- Attendance receiving system.
- User login without any annoyance and quick response.
- Well founded and flaw free website.
- Grade sheet preparing system

#### **1.5 Expected Outcome:**

This project is mainly designed for the teachers. In the COVID situation, Bangladeshi Teachers are dependent on Online Education. Mainly they depend on Google Classroom.

- Teachers can easily find out the information of students.
- Taking attendance and making a grading system will be much easier. Generating student reports will be easier too.
- Tabulation sheet, Individual grade sheet, Result PDF, Download PDF all are Included in this project.
- These will be an all-in-one learning center where materials will be shared and grading systems will be available, generating student reports will be much easier. This will reduce time consumption and make this Google Classroom more decorative than ever.
- Save valuable time.

## 1.6 Report Layout

- We have already recapitulated our motivation, objectives, features of this project, expected outcomes and report layout of this application in the first chapter of this project report.
- In the second chapter, we try to concentrate on the background on this project. We have also given the description of many other studies of this field and mention about the challenges that we face with this application.
- The requirement specification which includes the process mode, requirement collection, use case diagram etc of this project will be recapitulated in the third chapter.
- Chapter four will be about the design definition. Front-end, back-end design etc will be described here.
- Chapter five will contain project life cycle, priority matrix, risk analysis and planning, requirement analysis, coding and testing.
- Chapter six will contain Design specification, technologies which are used for this project, backend design, backend architecture, website Details.  
In the last chapter which is the conclusion.

## **CHAPTER 2**

### **BACKGROUND**

In this chapter, we will discuss the background of this application. We will discuss online education and how technologies like this can make students' and teacher's lives easier. Our application is mostly for teachers. Online education in Bangladesh has many challenges That's we must overcome to deliver an amazing product.

#### **2.1 Introduction**

Google classroom is an application that allows users to use this software for education from any location. This is an online education platform where Google Classroom gives students access to online learning that meets students' requirements which are documents provided by teachers. This is a synopsis by online education; many features are not currently included. Online education using mobile phones will be offered very soon. The present online world has made online education more convenient and reliable for students and teachers.

#### **2.2 Related Works**

In our country, few platforms are doing the work on online education. Google classroom is a Learning Management System that's offered by Google for teachers but that system can't fulfill the demand of all teachers and it's useful for students, not teachers. During this covid-19 situation, this problem is increasing day by day so the Bangladesh government tries to activate online education on the secondary and higher secondary level as a credible platform and we also want to take this platform forward like google classroom is the goal of our project in our country. Good results can be obtained by studying their limitations and overcoming them and adding them to our platform.

#### **2.3 Comparative Studies**



Google classroom is likely to become a significant online education software throughout the world shortly. Asian and other countries are currently undergoing an online class revolution. The internet has ushered in a major wave of change. Nowadays communication patterns have shifted, and most interactions with education take place through websites. As a result, the web is propelling the development of new channels that expand the scope and scale of online education to education sources and then online classes with other facilities.

The internet has enabled online classes, given source attendance, and result shit to communicate and interact with students more effectively and quickly. Without a doubt, online education is in its early stages in all countries, but it has enormous growth potential within the country.

## **2.4 Scope and Problem**

- Database and documentation problem.
- Poor internet connectivity.
- Privacy issue.
- Human resource problem for maintenance.

## **2.5 Limitations and Challenges**

### **❖ Earning Credibility**

Many Bangladeshi online education platforms demand money for using their platform. Teachers can't afford that software because of the pay system. That's why many teachers can't get the facilities of online education, as a result, the teachers don't like online education without knowing the benefits of online education.

### **❖ Logistics**

For providing online education facilities, first of all, countries need a good network. Logistics is a difficult task in Bangladesh because there are many places in Bangladesh where networks don't work. To provide a fantastic experience for our teachers and students, we must face this network challenge head-on.

### ❖ **Growing online education**

In Bangladesh, the government closed all educational institutions on March 17 last year. As a result, on-campus classes remained closed for more than a year and a half. Private universities were quick to adopt online learning methods and the public ones followed soon after. But the crisis exposed the fact that many universities were not equipped to take online classes – a new reality for the country's education system. There were 66.44 million internet users in Bangladesh in January 2020. Because of the large number of internet users, it is a great place to start an online education.

### ❖ **Funding**

Online education in Bangladesh is still in its early stages when compared to the other developed countries, and obtaining capital to start online education is difficult because teachers and students are unfamiliar with this type of education, especially the primary and high school level teacher and students. Companies with high potential frequently fail due to a lack of funding for their venture.

### ❖ **Human Resource**

We need people with the right set of skills to make this application a viable method for making sure that all our teachers get the proper training to use the software.

# CHAPTER 3

## Requirement Specification

### 3.1 Business Process Modeling

Every project requires a design study to make it more user-friendly, and our project is not that exception. We simply tried to manage the scenario in an orderly and well-designed manner with minimal complexity. Business process model aid to develop standard processes and minimize the loss of business.

#### 3.1.1 The process model:

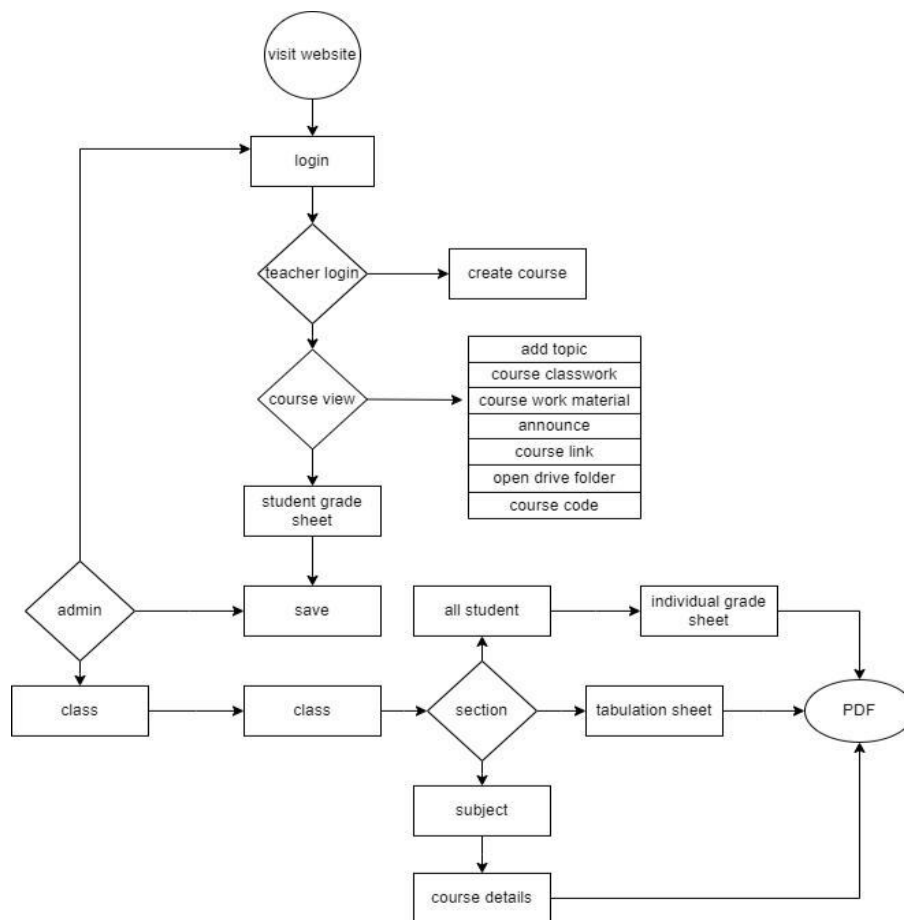


Fig 3.1: Business process model

### 3.1.2 Admin process model:

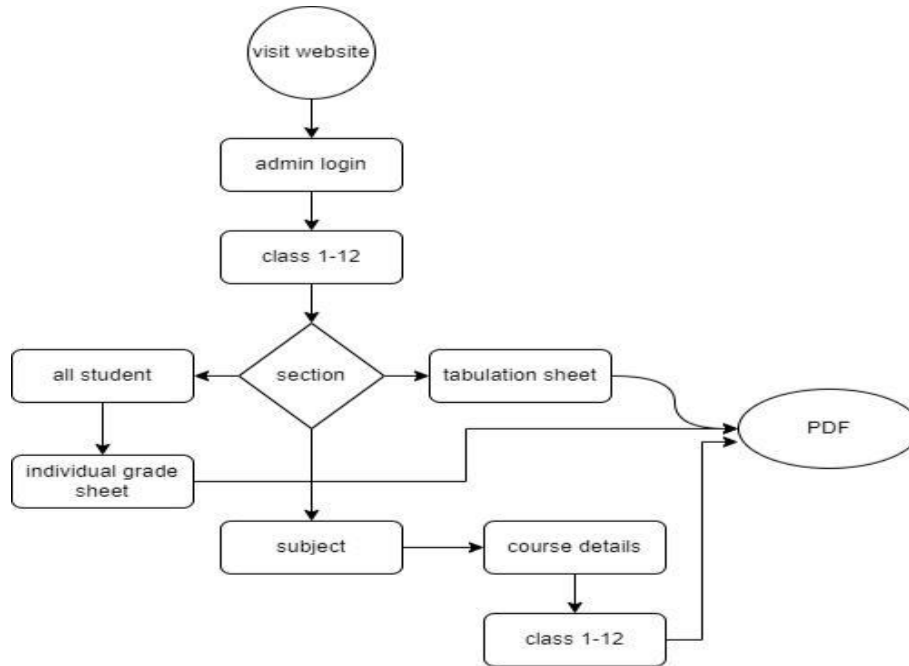


Fig 3.2: Admin process model

### 3.1.3 Teacher process model:

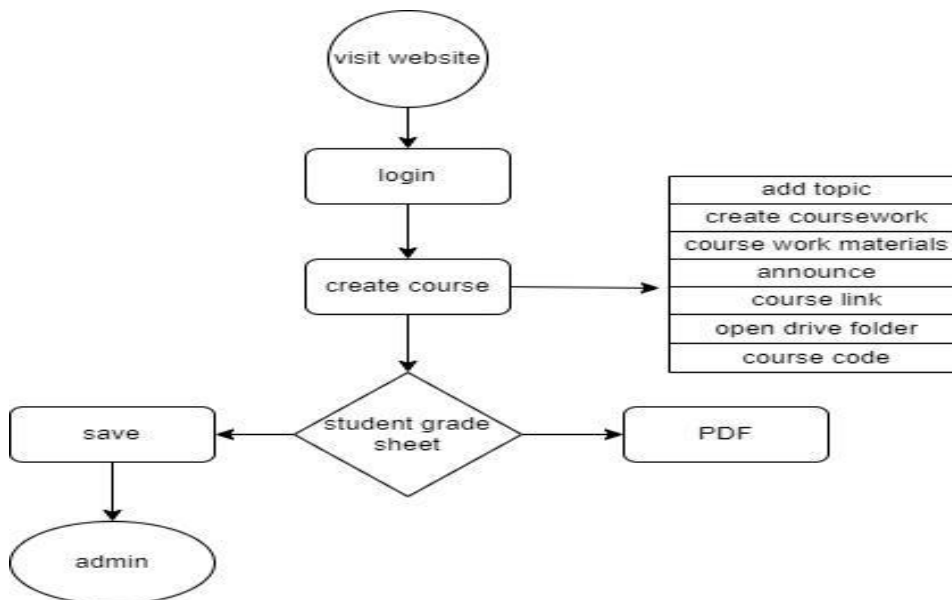


Fig 3.3: Teacher process model

## **3.2 Requirement Collection and Analysis:**

This project has a lot of requirements to gather. This also has some basic needs to construct the application. Software and Hardware are two types of requirements that we have

### **3.2.1 Software Requirement:**

Projects require design analysis to make them more user-friendly, and ours is no exception. We simply tried to manage the scenario in an orderly and well-designed manner with minimal complexity. For constructing the program, we'll need at least a medium computer, as well as the following Software Requirements:

- **Operating System:** Windows 8, Windows 7, Windows 10
- **Programming Language:** PHP, JavaScript
- **Frontend Framework or library:** JS, JQuery, Html, CSS
- **Backend Framework:** Laravel, Google API
- **Tools:** Visual Studio Code, Extensions for VS Code.

### **3.2.2 Hardware Requirements:**

For building up the application, we need the accompanying Hardware Requirements properly:

- Processor: Core i3 or higher
- RAM: 2 GB or higher

### **3.2.3 Requirement for User**

- Proper internet connectivity
- Install the application

### 3.3 Use case Diagram and description:

Use case graphs are composed of performing artists, use cases, and their connections. The graph is utilized to demonstrate the framework/subsystem of an application. A solitary use case chart catches specific usefulness of a framework.

Use case charts are used to put together a framework's requirements, encompassing both internal and external influences. The majority of these requirements are structure-related. As a result, while a framework is being dismantled to reassemble its functionalities, use cases are prepared and performers are identified.

#### Diagram:

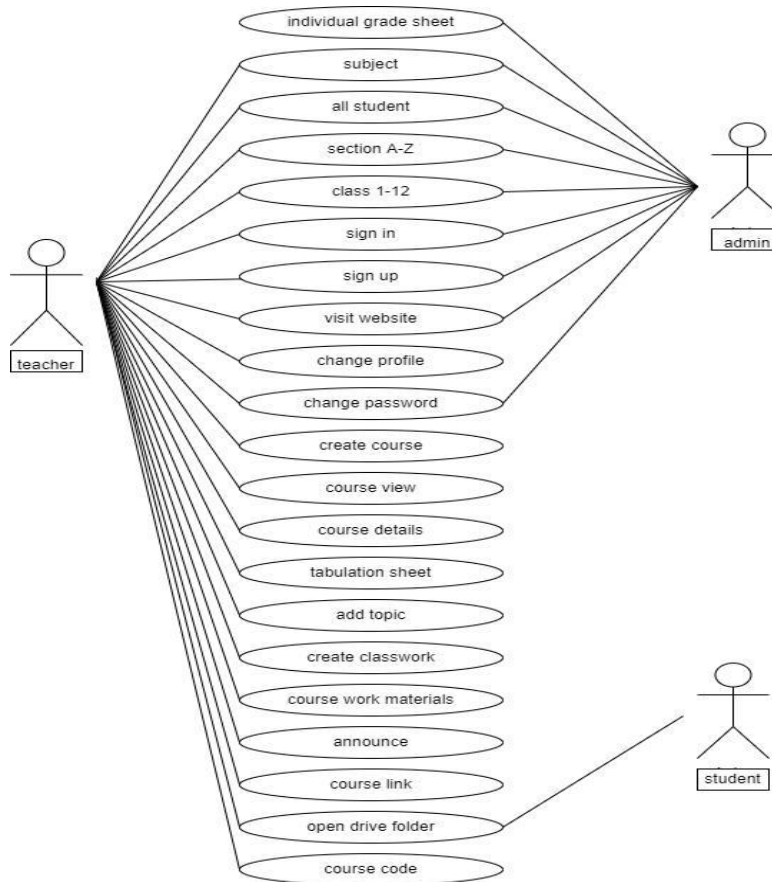


Fig 3.4: Use case Diagram

### 3.4 Logical Data Model:

Logical data model is a model which describes the data element exhaustively and conducts to enhance visual grasp. It vindicates the composition of data elements and establishes the relation between themselves.

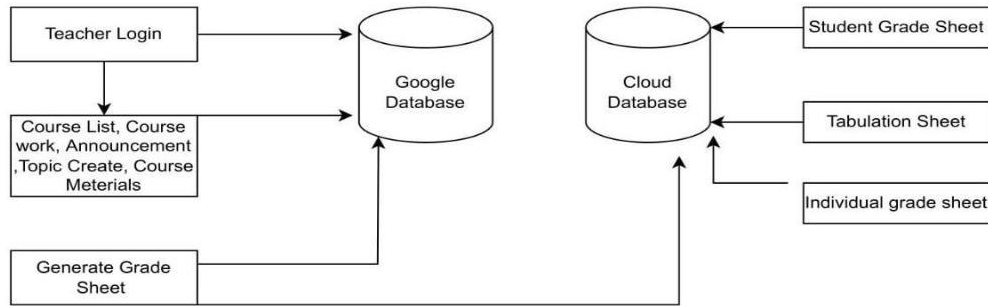


Fig 3.5: Logical data model

### 3.5 Design Requirements:

A proper design is troublesome in the development of this project. Every developer gives their best effort to do a good work with a good project and the look of a good project is indeed important. As a result, we try so hard to make our "COST-EFFECTIVE LEARNING MANAGEMENT SYSTEM" project as user-friendly as possible.

### 3.6 Data Flow Diagram:

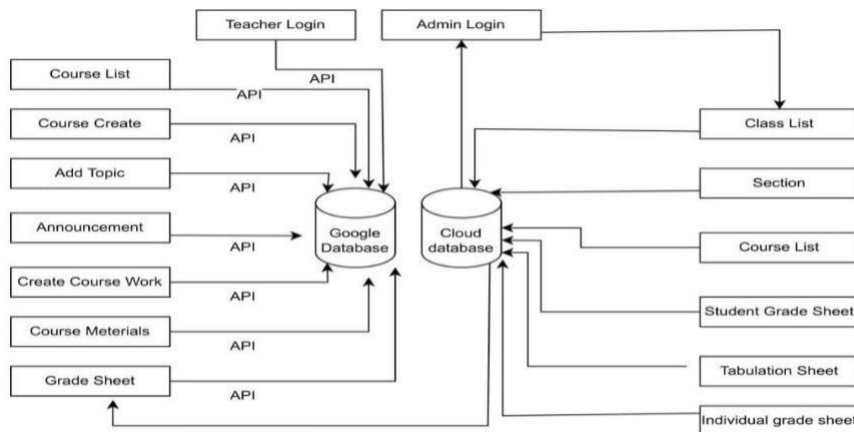


Fig 3.6. Data Flow Diagram

### 3.7 ER-Diagram:

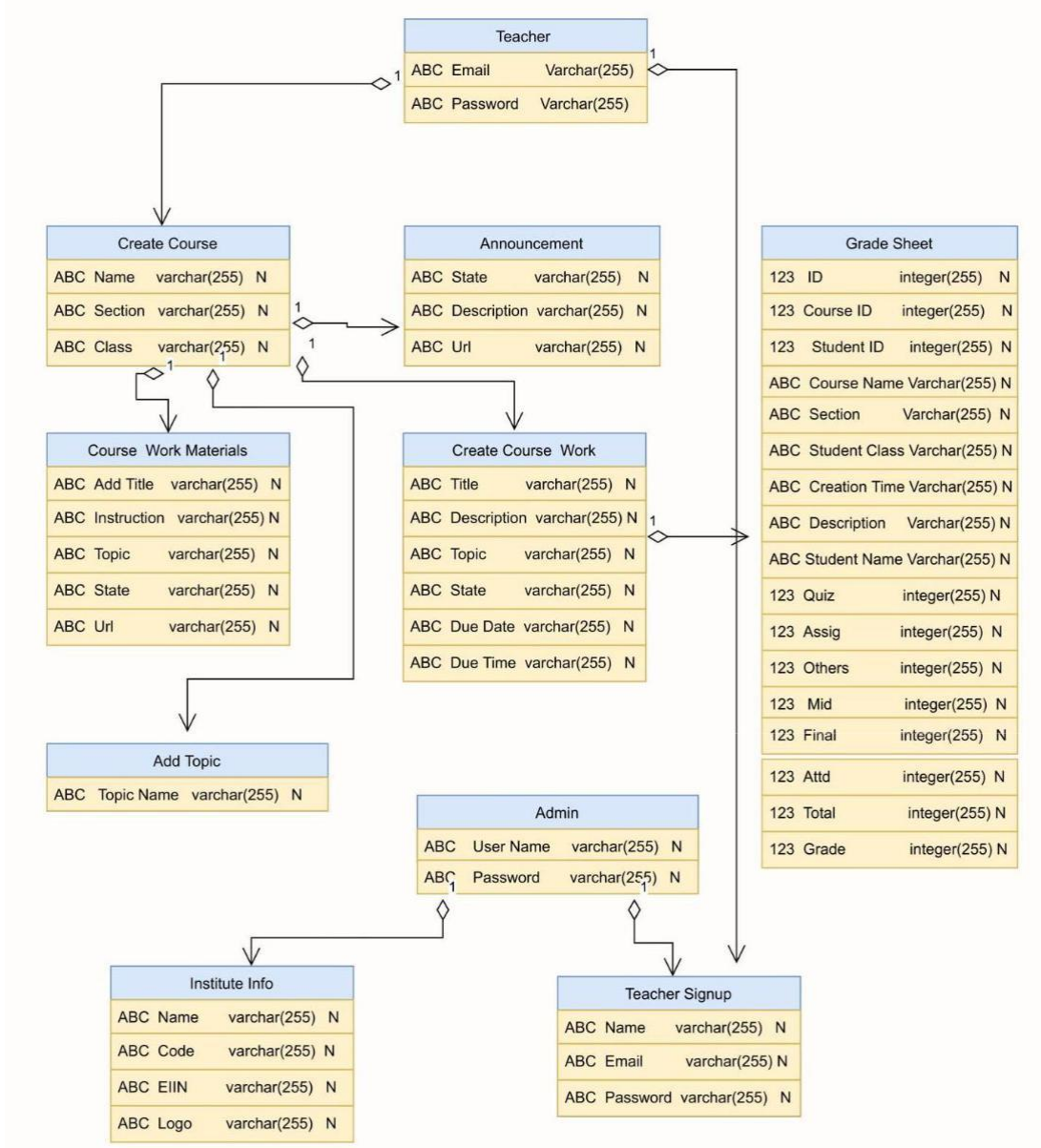


Fig 3.7: ER Diagram

The full form of ER model means entity–relationship model. That is a diagram which depicts the structure of a database (ER Diagram). An ER model is a database architecture or blueprint that can be applied later as a database. Entity set and relationship set both of them are the most important parts of the E-R model.



## CHAPTER 4

### Choosing Project Path

Depending on requirements, an application can be designed in many ways. So, there are several parameters at hand in terms of functionality.

**4.1. Project Paths:** This website has some different ways to complete it.

The elements are given below:

- **Code:** Code formed of basic coding that is a basic component of a website.
- **Domain:** Domain is the web address which is linked with the website's server.
- **Local Server:** A local server is a small server. Which will be only obtainable if developers are connected on the same networks.
- **Hosting:** The website needs to be hosted on a server that has internet access. When internet users want to view their website they have to type their domain or web address into the browser which belongs to their own. A server dedicated to providing service or services to users. Hosting servers are most used to host websites with files, games, and other types of information.
- **Community:** A community web page is where the users can provide their feedback.

## **4.2. Path Decision:**

As an educational website, the website should be good enough to suit its renown. So the best plan has to provide a balanced website with all features, 24/7 support, and zero cost.

Depending on the teachers or school amount and data load, the hosting package may vary within time.

## **4.3. Key Issues:**

**Building trust with the user:** Every website should have to provide a sense of safety and security to its users. This is especially true for all educational sites, which often need users to disclose their personal information and where the students' information is also given.

## CHAPTER 5

### Project Life Cycle & Priority Matrix

#### 5.1 Project Life Cycle:

According to our software requirement, decided to follow the Spiral Model.

Spiral is a popular project management framework. The spiral model is similar to the incremental development for a system, with more emphasis placed on risk analysis. The spiral model is one of the most important Software Development Life Cycle models, which provides support for Risk Handling. The spiral model is a software development model introduced by Barry Boehm to decrease the uncertainty at each stage of software development. This model incorporates features of both the waterfall model and prototyping model. It is a risk-driven process model and its most important feature is to decrease the risk of the project. The spiral model has four phases: **Risk analysis & Planning**, **Coding**, **Requirement** Analysis, and Evaluation. A software project repeatedly passes through these phases in iterations.

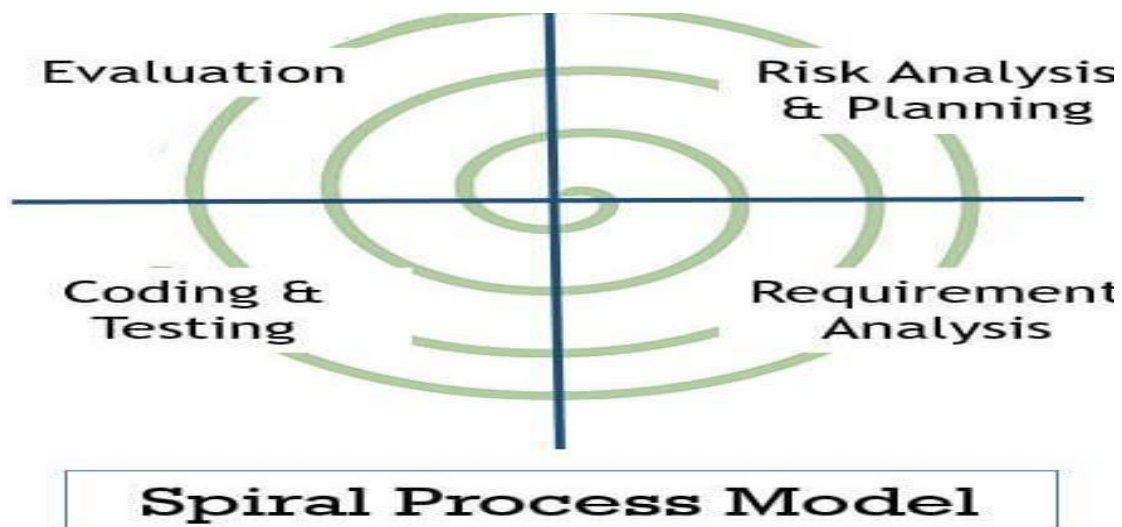


Fig 5.1: Project Life Cycle

- **Risk Analysis & Planning:**

Risks involved in the current iteration are identified and corrective measures to minimize risk are recognized. The corrective measures are evaluated against objectives and constraints. The deadline is set for the next stage.

- **Requirement Analysis**

In this phase, the client requirements are analyzed, the requirements for developing the product are also established.

- **Coding & Testing**

In this phase, the programs are developed and integrated to form software or a prototype. Like, in the early cycles the product of this stage would be a prototype and in subsequent cycles, the product of this stage is a developed software. The product of this stage is tested to find any error in coding.

- **Evaluation**

This stage evaluates whether the project is going as per planning or not. It evaluates whether the objective set at the first stage has been achieved or not. The evaluation phase also helps developers to decide the number of cycles that will be required to complete the project.



Fig 5.2: Spiral model life cycle

## CHAPTER 6

### Design Specification

We have used various types of technology for designing this application, some for the frontend and some for the backend design. We will explain in detail below which technology and why we have used these technologies.

#### 6.1 Technologies:

- Html
- CSS
- JavaScript
- J Query
- PHP
- Google API

#### • HTML

The full form of HTML is Hypertext Markup Language. HTML is a computer language that makes up most web pages and their content.

#### • CSS

The full form of CSS is Cascading Style Sheets. CSS is a style sheet language that is used to define the visual appearance and formatting of HTML documents. CSS creates a website, as well as its appearance and layout.

## •JavaScript

JavaScript is a powerful and flexible programming language on the web. Which is used to make the website more interactive both on the client-side and server-side.

## •jQuery

jQuery is a fast, small, and feature-rich JavaScript library that allows you to "write less, accomplish more." jQuery makes life easy for web developers. The goal of jQuery is to make using JavaScript on our website much easier.

## •PHP

The abbreviation of PHP is Hypertext Preprocessor and earlier it was called Personal Home Page. PHP is an open-source, object-oriented, interpreted scripting language that can be usually used at the server-side. PHP code is processed on web development.

## •Google API

The full form Google APIs is application programming interfaces. Which is developed by Google that allows communication with Google Services also with their integration to other services. The basic purpose of Google APIs is to provide a programmer with to create programs and applications that interface with Google's web services and databases.

## •SQL

The full form of SQL is Structured Query Language. SQL is a programming language that is designed for managing data in a relational database. SQL has a variety of functions that permits its users to read, manipulate, and change data.

## **6.2 Backend Design**

Frontend and backend both are the most used terms in the computer industry but the front-end is used only for users to interconnect with the data which is received from the backend. The front-end depends on the backend. The backend is built with PHP which is an extremely popular backend server-side language and MySQL is built for databases.

## **6.3 Back-end Architecture:**

As we have mentioned, we are using PHP which is a backend framework, also we know that PHP is a server scripting language. When we create a PHP project, the PHP itself creates a root directory of the project with the project name that you have already given on it. PHP includes all of the files which are required to provide basic functionality to your web apps.

### **PHP Application Files:**

- index.php
- index1.php
- js\_script.php
- marksheet.php
- quickstart.php
- quickstart1.php
- sidebar.php
- tabledataInset.php
- test.php

- top\_nav\_bar.php
- topic.php
- update\_draft.php

#### **PHP Application Files:**

PHP manages all the codes and understandably presents them using the concept of Projects. A PHP project has one or more applications, all of the applications ensure that the web application runs smoothly.

#### **•PHP Structure (MVC):**

We know that PHP is an open-source framework that is based on the model-view architecture (MVC). This framework is used for the rapid development and maintenance of web applications that are built in PHP. It helps to create web applications easily and simply with less code. MVC is a software design pattern, this structure has 3 parts:

#### **The three parts of the MVC Structure are as follows:**

- **Model:** The model is a data interface. This logical data structure manipulates the entire application. This part is concerned with the business logic and the application data. It can be used to perform process data, data validations, and store the data on a database.
- **View:** View is the user interface that helps to see on the browser when rendering a website. This part deals with presenting the data in front of the user. This is usually in the form of HTML pages.
- **Control:** All the logic is handled by these controllers. The controller deals with the user's requests for resources from the server. The controller links the models and views together depending on the requested resources.



## **6.4 Website Details**

### **•Website Contents**

- create class
- add topic
- create classwork
- course work material
- announce
- course link
- open drive folder
- course code
- student grade sheet
- tabulation sheet
- User registration process

## **6.5 Details user's manual on using and maintaining the website:**

- A concise overview of the website.
- A description of the website's administration tools.
- Login information for the web team which contains the various administrative tasks.
- Contact information for third-party services who purchased for the website, including phone numbers and license information.

### **Enhance user experience**

- Add search function to help the teachers find the course
- Add PDF function for download the important document

## CHAPTER 7

### Project Output

#### 7.1 API ROOT:

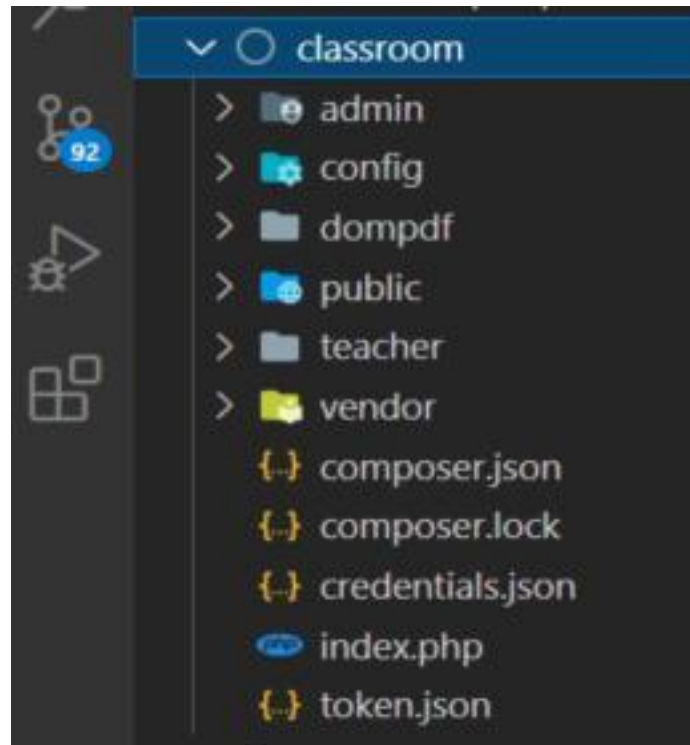


Fig 7.1

A school and college website where there are two options. Admin Login and Teacher login

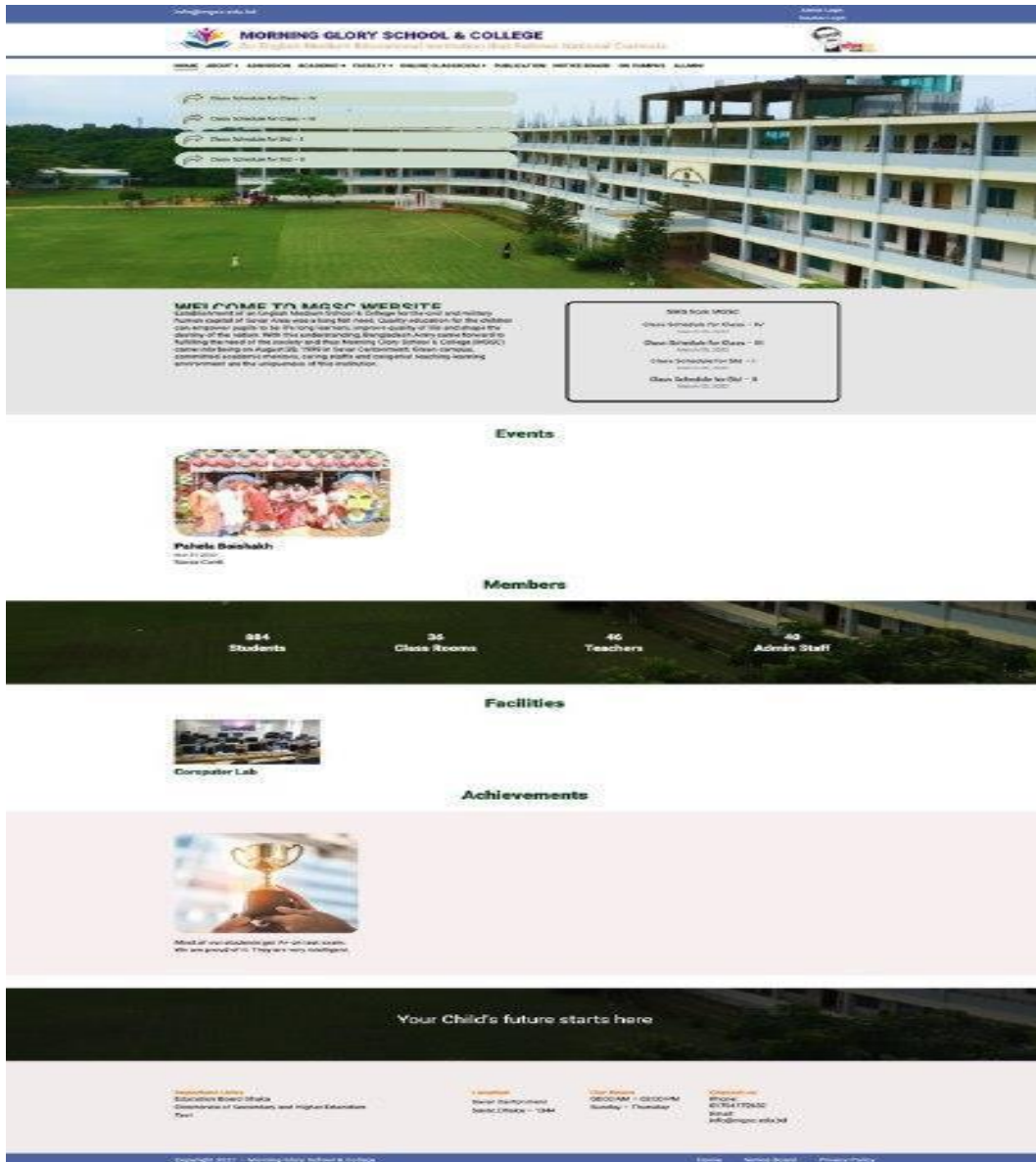



Fig 7.2: Front-page of the website

## Admin Login:



Admin Sign In

Akhtar


.....

Sign In

[Forgot Password?](#)  
[Create an Account!](#)

Fig 7.3:Admin Login page

## Teacher Sign up:



Create an account for teacher.

mahmud hosen

mahmud@gmail.com

.....

.....

Sign Up

[Forgot Password?](#)  
[Already have an account? Login!](#)

Fig 7.4: Teacher Sign up page

## Teacher Login:

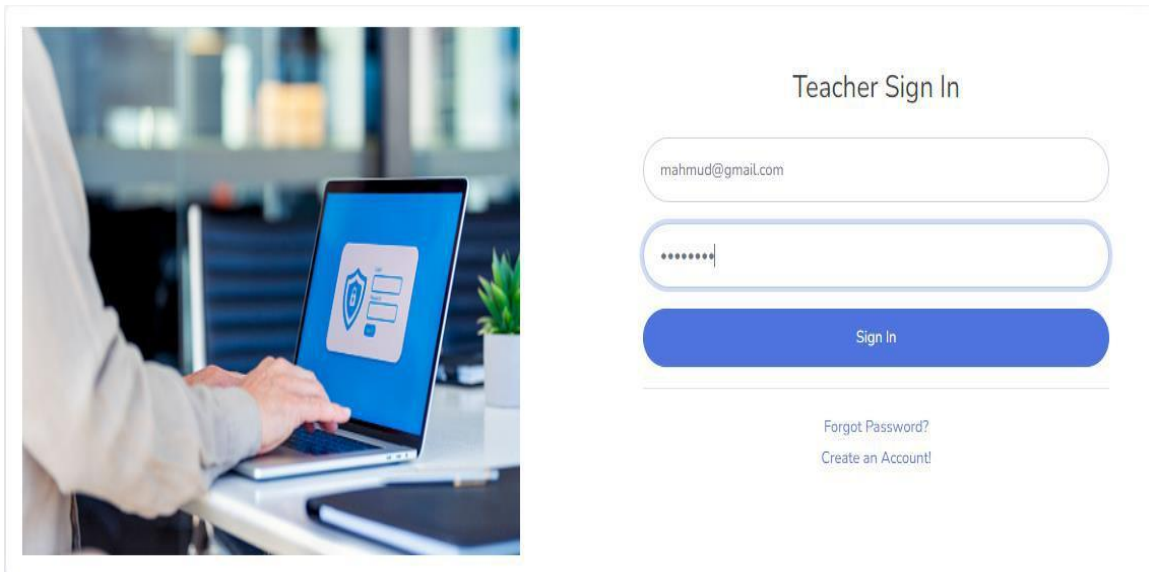


Fig 7.5:Teacher Login page

## Courses List:

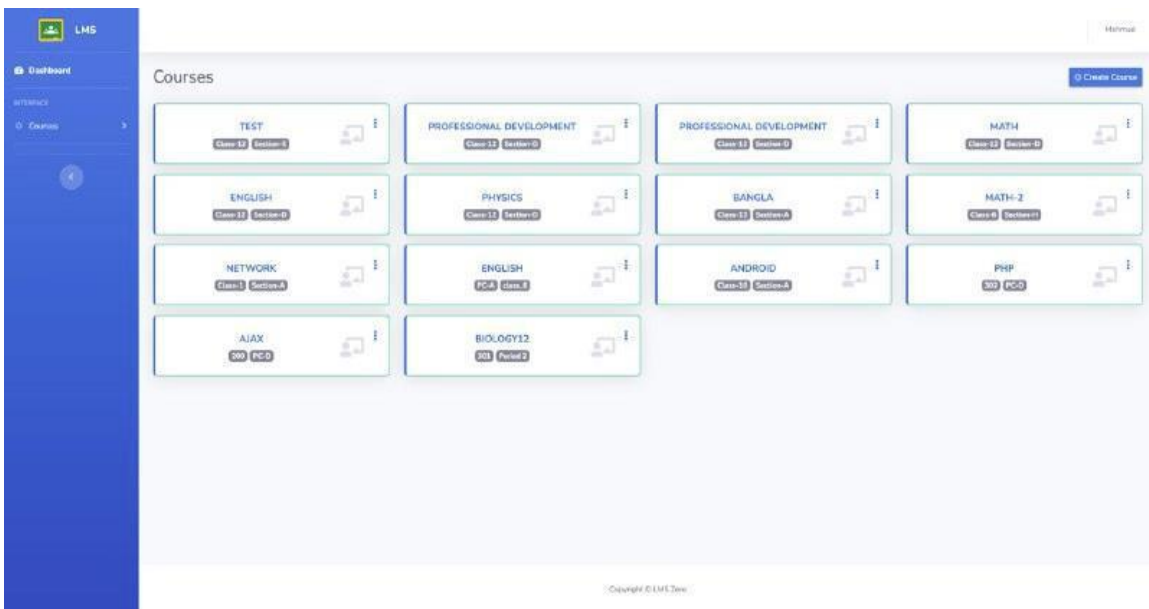
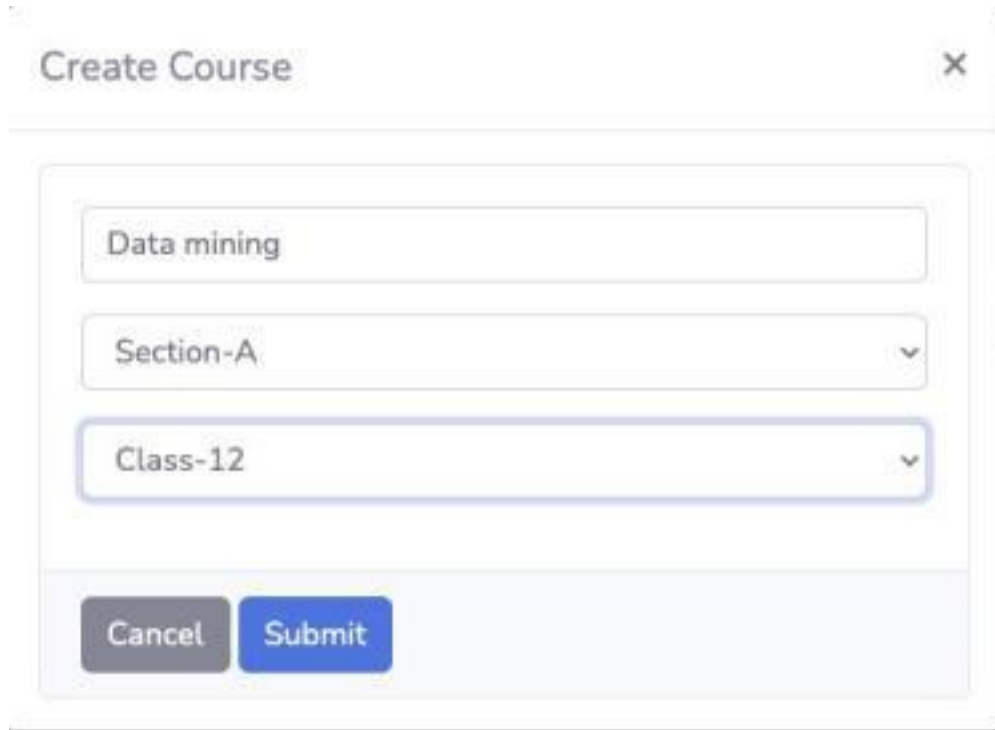


Fig 7.6: Courses List

## Courses List:



The image shows a 'Create Course' dialog box with a close button (X) in the top right corner. It contains three input fields: a text field with 'Data mining', a dropdown menu with 'Section-A', and another dropdown menu with 'Class-12'. At the bottom, there are two buttons: 'Cancel' and 'Submit'.

Fig 7.7: Courses List

## Course Features:

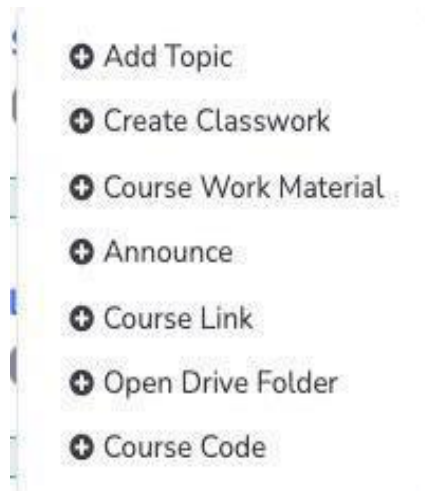
- 
- + Add Topic
  - + Create Classwork
  - + Course Work Material
  - + Announce
  - + Course Link
  - + Open Drive Folder
  - + Course Code

Fig 7.8: Course Features

## Add Topic:

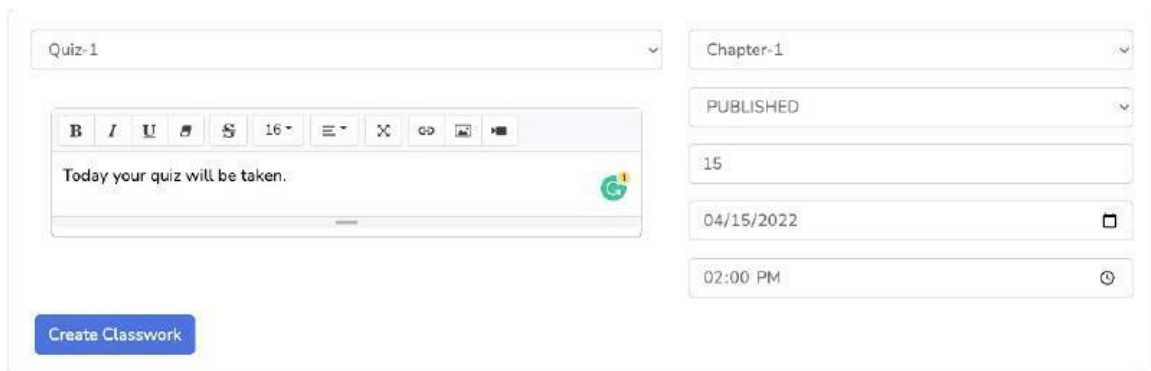


Chapter-4

Add Topic

Fig 7.9: Add Topic

## Create Class work:



Quiz-1

Chapter-1

PUBLISHED

15

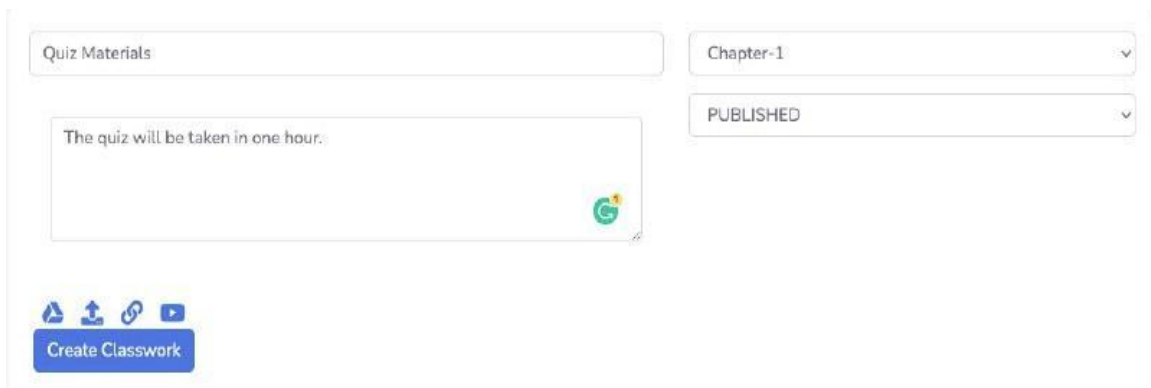
04/15/2022

02:00 PM

Create Classwork

Fig 7.10: Create Class work

## Create Coursework materials:



Quiz Materials

Chapter-1

PUBLISHED

Create Classwork

Fig 7.11: Create Coursework materials

## Announcement:

Announce something to your class.

PUBLISHED

**B** *I* U 16

Late submit not be allowed.

Post

Fig 7.12: Announcement

## Course Link:

Physics  
Section-D

Stream Classwork People Marks

Customise

Physics  
Section-D

Class code  
jxsoljx

Upcoming  
Due Wednesday  
06:00 – Attd  
06:00 – Final  
06:00 – Mid

Announce something to your class

Mahmud Hosen posted a new assignment via Classroom: Attd  
4 Apr

Mahmud Hosen posted a new assignment via Classroom: Final  
4 Apr

Fig 7.13: Course Link



## Open Drive Folder:

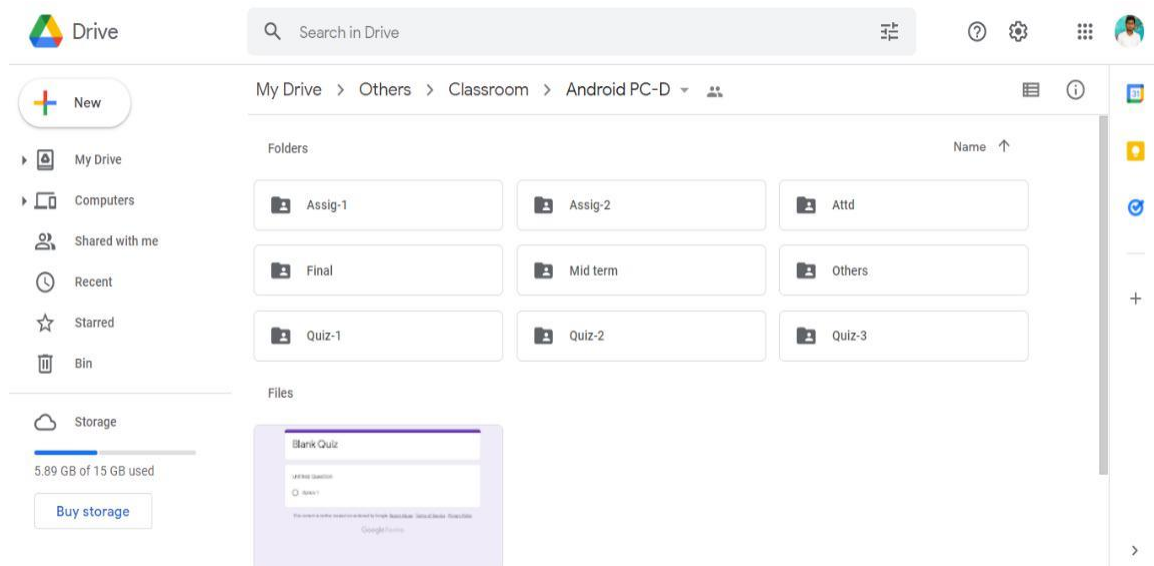


Fig 7.14

## Join Course Code:



Fig 7.15: Open Drive Folder

## Students Grade Sheet:

### Student Grade Sheet

Course Name:Android  
Section:Section-A

Student Name	Final	Others	Assig_2	Assig_1	Attd	Mid	Quiz_3	Quiz_2	Quiz_1	Q-Avg ▾	A-Avg ▾	Total	Grade
Ovro Hossain	25	7	3	4	6	20	10	14	12	12	3.5	73.5	A
Nazmus Sakib	23	7	4	4	7	25	14	14	13	13.7	4	79.7	A
Firoz Hossain	24	7	4	3	6	20	12	13	10	11.7	3.5	72.2	A
Najmus Shakib	22	8	4	4	6	24	14	15	34	21	4	85	A+
Aminul Islam Tutul	20	7	6	4	9	13	14	13	14	13.7	5	67.7	A-
Faysal Ahammed	21	7	4	5	6	24	15	14	12	13.7	4.5	76.2	A
Nishat Tasnim Nabila	21	6	4	4	6	23	14	13	14	13.7	4	73.7	A
md sakib	14	7	3	2	4	21	12	13	10	11.7	2.5	60.2	A-
Hulk Hulk	21	6	4	4	5	23	12	13	13	12.7	4	71.7	A
Nafisha Tamanna Nice	24	7	3	4	6	24	13	14	15	14	3.5	78.5	A
Abir Res	20	7	4	4	6	20	13	13	14	13.3	4	70.3	A
mdhafizur rahman	21	7	4	4	6	23	13	12	14	13	4	74	A
The Bappa Vai	13	5	4	3	6	21	12	13	14	13	3.5	61.5	A-
miskat showmik	14	4	3	4	6	19	13	11	10	11.3	3.5	57.8	B
Muftain Ahmed Joy	24	6	5	4	7	25	15	14	14	14.3	4.5	80.8	A+
Arafat Rohman Sharif	24	7	4	4	6	19	12	14	14	13.3	4	73.3	A
Olide Hasan	24	8	4	3	6	23	14	12	14	13.3	3.5	77.8	A
Dev Jyoti	12	5	3	5	6	20	14	10	13	12.3	4	59.3	B
sanjida trisha	23	5	4	3	4	14	13	15	12	13.3	3.5	62.8	A-
jayoti biswas	16	5	3	5	6	24	14	13	18	15	4	70	A
mahmud hossain	36	6	3	4	3	23	10	12	14	12	3.5	83.5	A+
Nahid Miah	30	5	4	3	7	25	12	11	10	11	3.5	81.5	A+

Fig 7.16: Students Grade Sheet

## Class List:

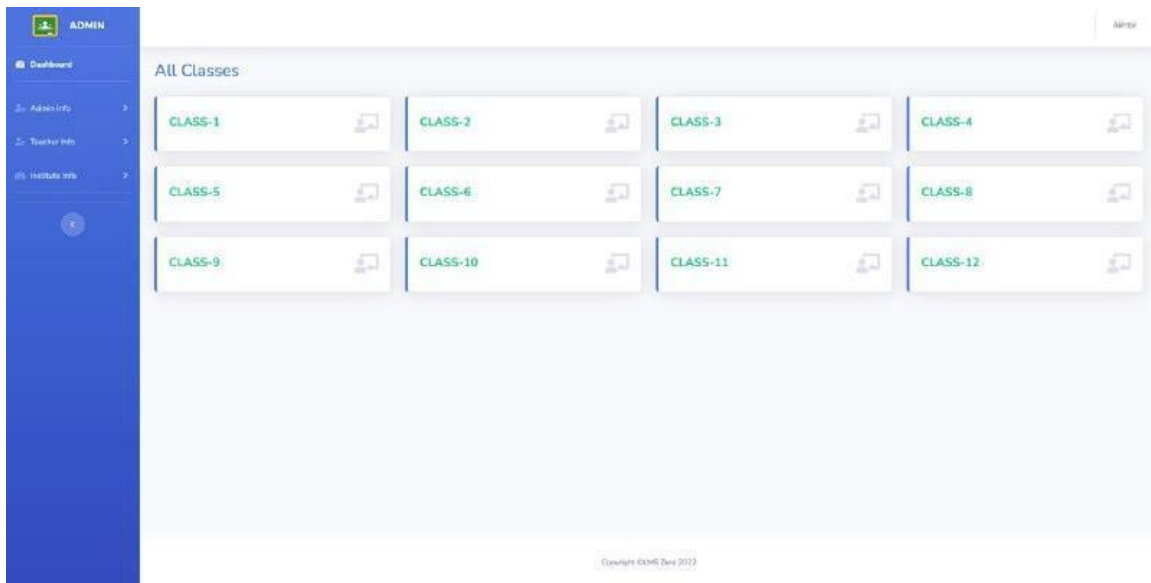


Fig 7.17: Class List

## The section of a class:

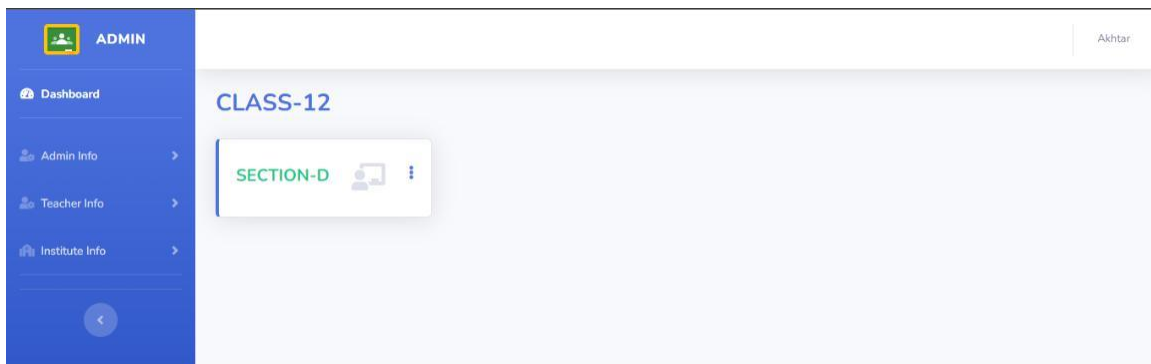


Fig 7.18: The section of a class

## The courses of a section:

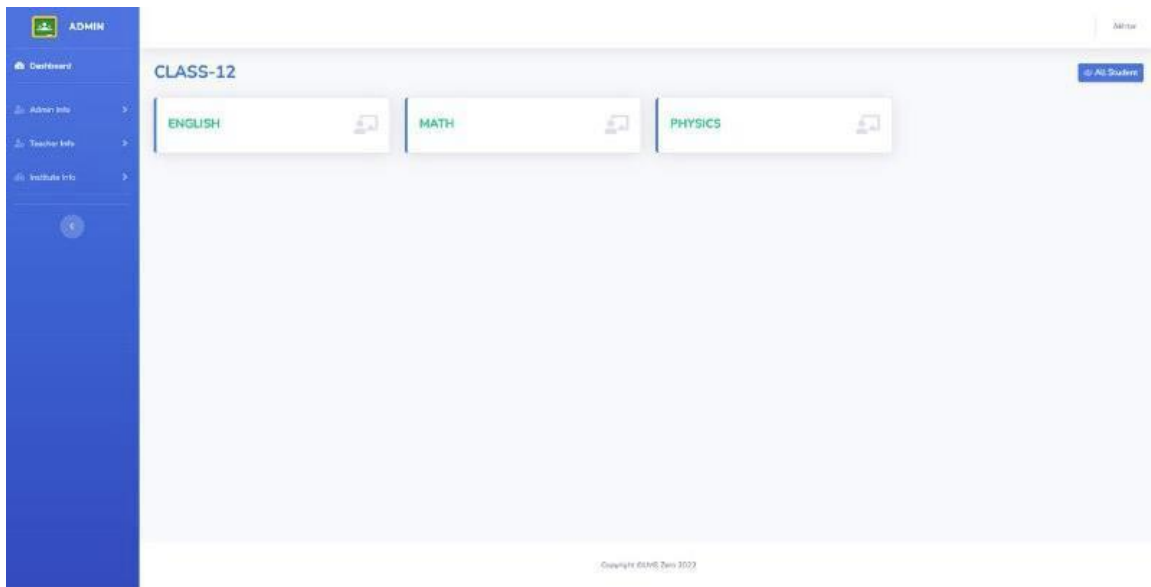


Fig 7.19: The courses of a section

## Students Grade Sheet:

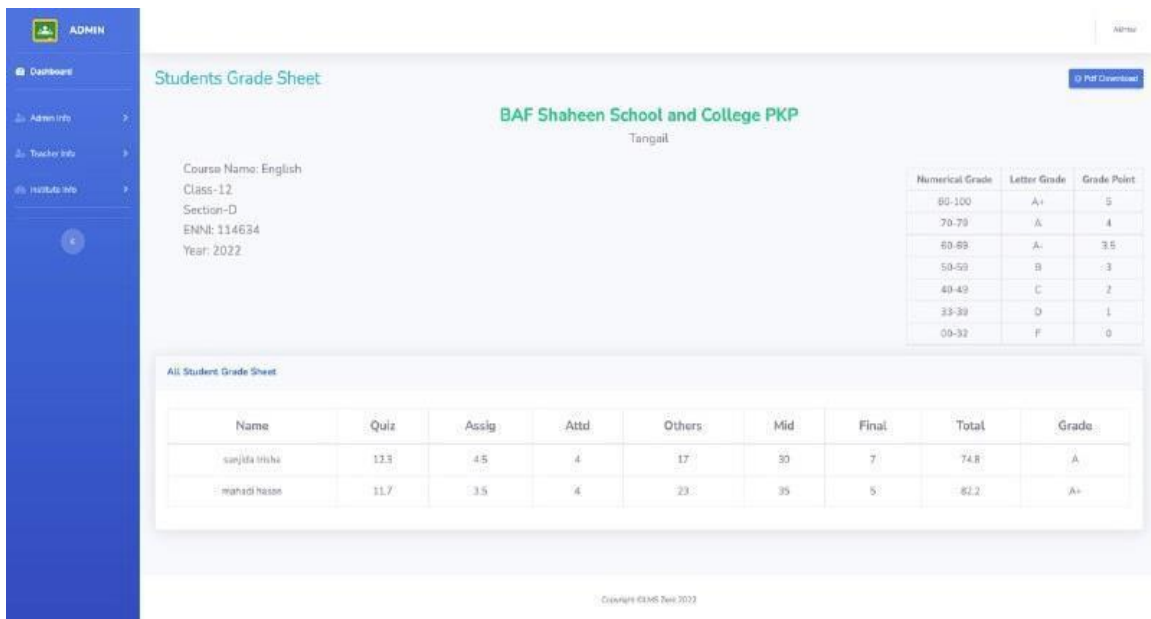


Fig 7.19: Students Grade Sheet

## Student Grade Sheet Pdf:

**BAF Shaheen School and College PKP**  
**Tangail**

CourseName: Physics  
Class-12  
Section-D  
Year: 2022

Name	Quiz	Assig	Attd	Others	Mid	Final	Total	Grade
sanjida trisha	9.3	3.5	4	15	25	5	61.8	A-
mahadi hasan	11.7	3.5	3	15	30	5	68.2	A-
Saikat Shahriar	12	3	5	15	20	5	60	A-

Fig 7.20: Student Grade Sheet Pdf

## All Student:

ID	Student Name	Details
10954808900769846147	sanjida trisha	<a href="#">View</a>
112279157484310738200	mahadi hasan	<a href="#">View</a>
117424086723071214222	Saikat Shahriar	<a href="#">View</a>

Fig 7.21: All Student

## Individual Grade Sheet:

**BAF Shaheen School and College PKP**  
Tangail

Student ID: 109548089007769846147  
 Student Name: sarjida trisha  
 Class-12  
 Section-D  
 ENNI: 114634  
 Year: 2022

Numerical Grade	Letter Grade	Grade Point
80-100	A+	5
70-79	A	4
60-69	A-	3.5
50-59	B	3
40-49	C	2
33-39	D	1
00-32	F	0

Course Id	Course Name	Grade
35404732629	Math	A-
35402719340	Physics	A-
354050138761	English	A

GRA: A-

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Fig 7.22: Individual Grade Sheet

## Tabulation Sheet:

**BAF Shaheen School and College PKP**  
Tangail

Class-12  
 Section-D  
 ENNI: 114634  
 Year: 2022

Numerical Grade	Letter Grade	Grade Point
80-100	A+	5
70-79	A	4
60-69	A-	3.5
50-59	B	3
40-49	C	2
33-39	D	1
00-32	F	0

Student Name	Physics	Math	English
Sakiat Shahriar	A-		
sarjida trisha	A-	A-	A
mahsid hasan	A-	A-	A+

DevShare CMS Dev 2022

Fig 7.23: Tabulation Sheet

## Tabulation Sheet Pdf:

---

### BAF Shaheen School and College PKP

#### Tangail

Class-12

Section-D

Year: 2022

Student Name	Physics	Math	English
sanjida trisha	A-	A-	A
mahadi hasan	A-	A+	A+
Saikat Shahriar	A-	A+	A-

Fig 7.24: Tabulation Sheet Pdf

## **CHAPTER 8**

### **Conclusion**

#### **8.1 Discussion and conclusion:**

During the testing phase of the development of our application, we tested it with most of the previously described features. The application functioned flawlessly. We are ecstatic to be able to create such a beneficial application for the betterment of our teachers. The current year is 2022. The impact of the COVID-19 pandemic has brought the entire world to a standstill. Maintaining social distance is one of the most important safety precautions to take.

Due to the closure of School or college for a very long time, students suffered mentally. Also, the SSC examinees were mostly depressed due to the auto pass issue. A good number of students may have done badly in their JSC exam and they wanted to make it up in SSC. But it was the same for them which is why they couldn't get the chance to prove themselves, which made them even more depressed.

During this pandemic, the application will be extremely beneficial for the educational institutions because they will be able to take online classes, exams very easily and the students will be able to continue their studies from home.

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