FINAL YEAR PROJECT REPORT ON ATTENDANCE SYSTEM

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This report was submitted in partial fulfillment of the requirements for the bachelor's program in computer science

The supervision of

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DAFFODIL INTERNATIONAL UNIVERSITY

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APPROVAL

The title of this project is "Employee Attendance System", provided by Mohammad Golam Mortuza Daffodil International University's Department of Computer Science and Engineering, has been approved for the purpose of partial fulfillment of the criteria The style and content of the thesis for the degree of B.Sc. in Computer Science and Engineering were approved. the demonstration took place on 29/12/2021.

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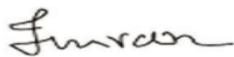
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Declaration

We therefore proclaim that we completed this project "Employee Attendance System" under the direction of **Juel Mia**, Sr. Lecturer, and the Department of CSE Daffodil International University. We also certify that no component of this project, has been submitted in whole or in part to any other institution for the purpose of conferring a degree or diploma.

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_____

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Acknowledgment

In the first place, we would like to offer our profound thanks to the Almighty God for His sake divine favor, it has allowed us to succeed finish the final year project. We are quite thankful, and desire to express our deepest gratitude to Md. **Juel Mia Daffodil International University,** Dhaka, Daffodil International University, Daffodil International University, Daffodil International University, Daffodil International University, Daffodil

To complete this job, our supervisor must have extensive knowledge and a deep interest in the field of "Web Development." His never-ending patience, scholarly guidance, constant encouragement, frequent and active supervision, constructive criticism, helpful guidance, and reviewing and editing a large number of poor drafts stages allowed this undertaking.

We would like to convey our heartfelt gratitude to **Dr. Touhid Bhuiyan, professor** and Head, Department of CSE, for his invaluable aid in the completion of our project, as well as the members of the faculty, and employees of The Department of Computer Science and Engineering at Daffodil International University. We I'd want to express my gratitude to everyone of our Daffodil International University classmates who participated while finishing this debate their work on the course.

Last but not least, we must recognize and acknowledge our parents' unwavering support and patience.

ABSTRACT

Daffodil International University Computer Science and Engineering Department is one of the biggest Department. It has more than seven thousand plus student. For managing those seven thousand plus student attendance is so much tough. It also boasts a faculty of about a hundred people. Employee Attendance System deals with the maintenance of the employee attendance system. Right now, somewhere, a manual Attendance System is in operation, which is not good. It's also Creates huge mental pressure for us. There are situations when mistakes occur because this attendance is taken by someone. I discuss this problem with my supervisor sir. After discussion we specified the feature of our Attendance System and start work with it. Finally, I have completed my project with my dedication and hardworking. It will be able to taking attendance of the employee/student

by modern computer. It will help to provide all the information of attendance successfully. The main thing is it will reduce time and mental pressure for the owner.

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Chapter 1

Introduction

1.1   Introduction

Let's define Attendance. The act or fact of attending something or someone a physician in Attendance. A Attendance is also the practice in a fixed order for regularly doing things. For any working/educational institute the most important task is to present in work place or classroom. One of the most important components in doing this is having a good attendance system. And the reputation of an institute is defined by how well it manages its attendance. The institute like Daffodil International University have so many employees, and it's not an easy task to manage this big Attendance. We have implemented an Attendance system in order to manage Attendance. Our proposed system makes easy to use the manual system. It will be able to manage Attendance by modern computer. It will help to provide all the information of the class Attendance successfully.

1.2 Motivation

Every institution in Bangladesh has attendance for the management of institute and time allocated to them. Currently somewhere these Attendance is required. manually created. The parameters like employee id, course code, class time, room number etc. for creating routines are also manually kept in mind while creating these routines.

I am doing this project for reducing mental pressure for owner to save time for employee/students.

1.3 Objectives

To be able to generate a system through which institute can take attendance for employee or students.

1.4 Expected Outcomes

Attendance will be taken successfully.

1.5 Project Management and Finance

Almost every institute need attendance system, so we decide to make a device that can automatically take attendance. After that we talk with our respected Supervisor Sir and come to this conclusion.

For completing our project, we collect all information from our Supervisor Sir And it is only because of his directions that we are able to execute this assignment. So, we don't need any money transaction.

1.6 Layout of the Report

We describe our project in our report. Chapters, such as Chapter 1, were used to create our material. We have described Introduction, This project's motivation, objectives, and expected outcomes

In Chapter 2, we go over the history of our application, how we plan it, and why we chose it.

Chapter 3The requirement specification for our project is discussed.

Chapter 4 system design and implementation of requirements.

Chapter 5 is based on our application's implementation and testing for error testing.

Chapter 6 is based on The impact on society, the environment, and long-term viability.

Chapter 7 is our final chapter, in which we examined the application's future scope and conclusions.

Chapter 2

Background

2.1 Introduction

In this chapter, we'll look at we will speak about all the project work that related to our project idea.

We will try to find their limitations and discuss about them.

We will find the difference between them and us. We will also describe why out application is the best one. Lastly, we will describe the challenges of our application.

2.2 Related Works

in order to determine the feasibility study of our apps we studied on some development project and also discuss which kind of project they are doing. Try to determine their limitations. Also, what features do we need to add

Here is the list of some project:

· Attendance system for all department of Daffodil International University [1]

· Attendance management system [2]

· Automated computerized Attendance [3]

2.3 Comparative Analysis

We are studied so many projects work and trying to learn about them. We studied so many things and find many things like accuracy, limitations, algorithms, different features etc. Now we will differentiate our project with another project,

· "Attendance System for All Department of Daffodil International University" [1] the main difference between our and this project are Date will be used today's date. In this project Attendance can't be updated.

· "Attendance System "[2] in this project attendance can be updated which is not valid. Our Reduce the project this problem.

· "Automated computerized Attendance "[3] in this project attendance can be given multiple time in a day which is not possible to our project.

2.4 Dimensions of the Issue

There is various project development on Attendance System, various application on play store which is actually take attendance multiple time in a day. However, our application only records attendance once per day.

2.5 Challenges

I) This application can take attendance any time in a day. There is no way to stop time.

ii) Attendance can't be updated.

Chapter 3

Specification of Requirements

3.1 Gathering and Analyzing Requirements

In our Daffodil International University there is a attendance system where admin can update attendance which is not a valid process and this software use by someone who will take Attendance. However, my program contains two panels: an admin panel and a user panel. Any panel need for taking attendance.

For reducing owner or teacher for taking Attendance we start thinking about an attendance system. After that, I had a discussion with my Honorable supervisor. Discuss about that exiting attendance system (how to create and their functionality). Also discuss about our idea and the functionality needed for attendance system.

Here is the functionality:

1) Class will Created by admin.
2) Section will Created by admin.
3) user will Added by admin.
4) User will come to the institute and then give their attendance.
5) After all, a report will be generated automatically.
6) Admin can search every user attendance by his/her id/roll.

After that we design our Use Case diagram and Business process Model and start working. Also, ask the Supervisor Sir for directions.

3.2 Modeling and Description of Use Cases

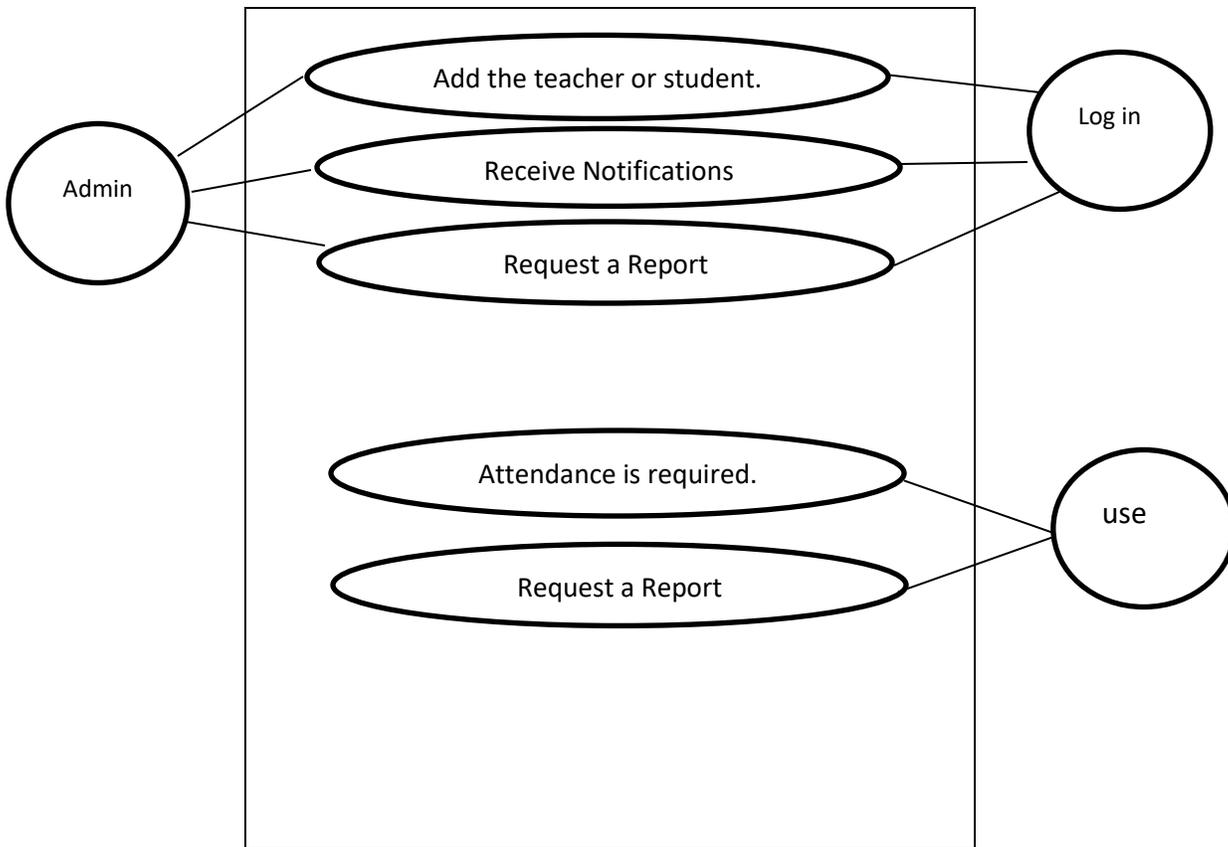The following is a diagram of our use case,

Figure 3.3.1: Make use of a case diagram

All of the insertion work can be done by the administrator in this case. User will give their attendance by select some parameter correctly.

3.3 Logical Modeling Data

Here is our model of logical data

batches/classes
id(integer)unique
name(string)
is_active(boolean)

sections
id(integer)unique
student_class_id(integer)foreign key
name(string)
is_active(boolean)

add students
id(integer)
student_class_id(integer) foreign key
section_id(integer) foreign key
name(string)
id/roll(string)unique
is_active(boolean)

attendences
id(integer)
student_class_id(integer) foreign key
section_id(integer) foreign key
name(string)
id/roll(string)unique
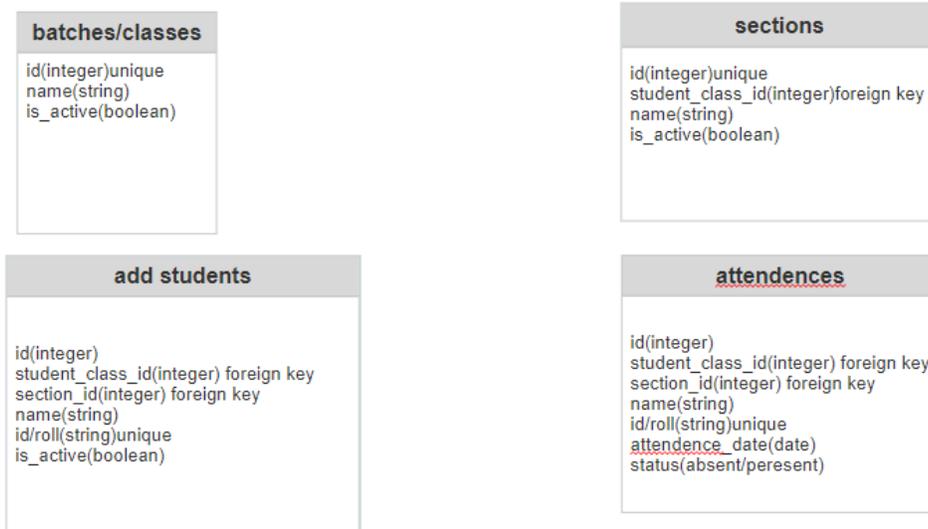attendence_date(date)
status(absent/peresent)

Figure 3.4.1: model of logical data

3.4 Requirement for Design

We research and analyze so many designs for making an attractive design for our project. We use HTML5, CSS3, Bootstrap for front end design and Laravel8.0, MySQL Database for backend design.

A design must need to be,

- Simple
- Easy to access
- Different user can access

Chapter 4

DESIGNS SPECIFICATIONS

4.1 Development of the front-end

- We use for front-end design. HTML5

- CSS3

- Bootstrap

4.2 Design for the backend

For Back--End design we use,

- Laravel8.0

- MySQL Database

4.3 User Experience and Interaction Design (UX)

Our proposed attendance system works on Lab of Daffodil International University. For taking attendance easily, a user can easily search and find attendance in an optimized way. Admin can take attendance easily.

4.4 Requirements for Implementation

Software and hardware requirements:

Software

- Google Chrome

- Mozilla Firefox

Hardware

- Mobile Phone

- Laptop

Chapter 5

Testing and Implementation

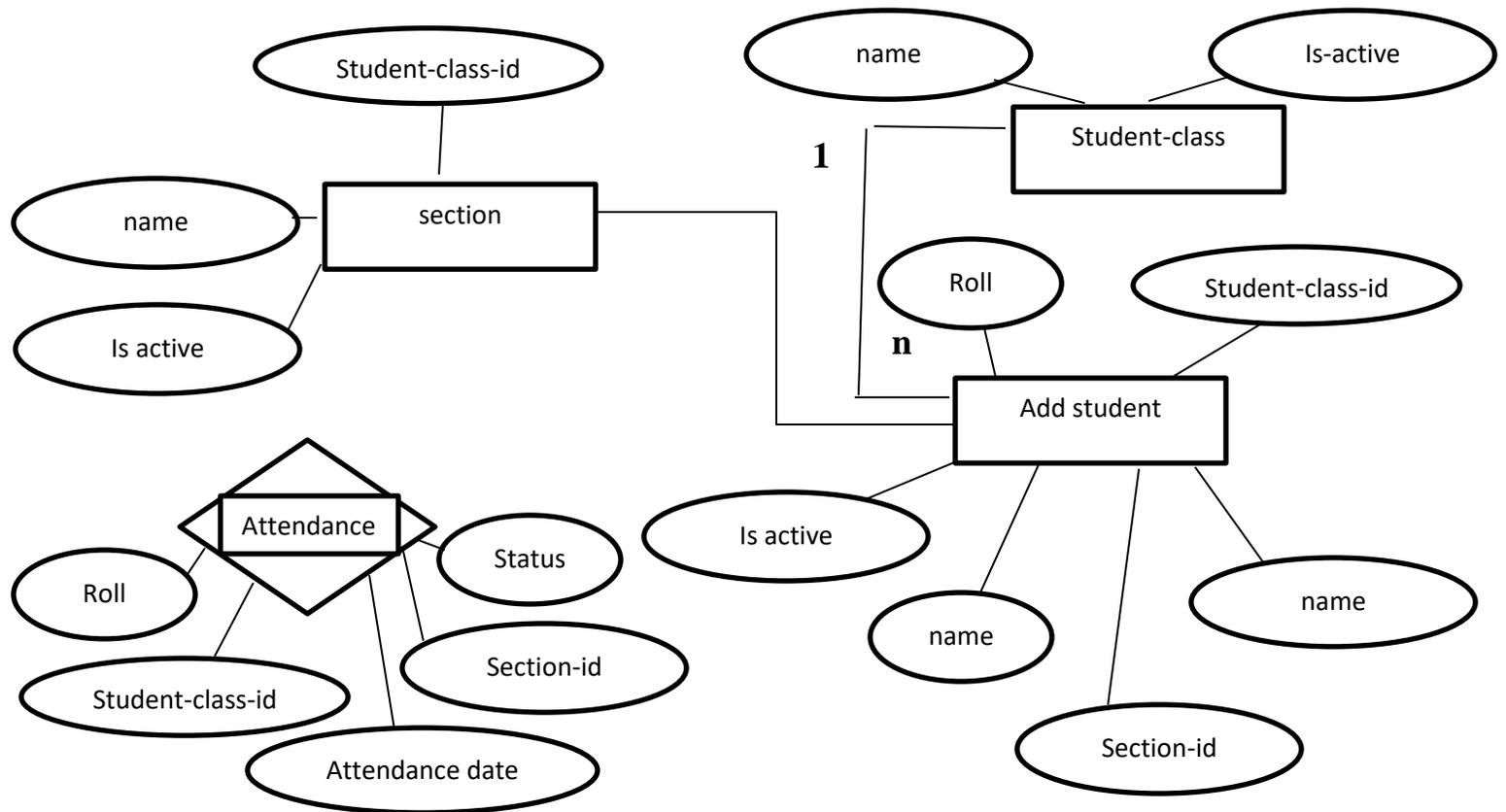### 5.1 Database implementation

Here is our ER diagram,

Figure 5.1.1: ER diagram

Here is our database table,

TABLE 5.1.1: DATABASE TABLE FOR SECTION

Sr.	Column	type	Primary key	Foreign key
1	id	integer	yes	no

2	name	varchar	no	no
3	is-active	Boolean	no	no

TABLE 5.1.2: DATABASE TABLE FOR CLASSES

Sr.	Column	type	Primary key	Foreign key
1	id	integer	yes	no
2	name	varchar	no	yes
3	is-active	varchar	no	no

TABLE 5.1.3: DATABASE TABLE FOR ADD STUDENTS

Sr.	Column	type	Primary key	Foreign key
1	id	integer	yes	no
2	**Student-class-id**	integer	no	yes
3	**Section-id**	integer	no	yes
4	**name**	varchar	no	no
5	**roll**	varchar	no	no
6	**Is-active**	Boolean	no	no

TABLE 5.1.4: DATABASE TABLE FOR ATTENDENCE

Sr.	Column	type	Primary key	Foreign key
1	id	integer	yes	no
2	**Student-class-id**	integer	no	yes
3	**Section-id**	integer	no	yes
4	**roll**	varchar	no	no
5	**status**	string	no	no

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Sr.	Column	type	Primary key	Foreign key
1	Course-id	integer	yes	no
2	Course-name	varchar	no	no
3	Course-code	varchar	no	no
4	credit	Tiny integer	no	no
5	Type-id	integer	no	yes

5.2 Front-end development implementation

Front-end development is mainly used for user. User can perform all the action.

Add Class:

Figure 5.2.1: Add Class

Add Section:

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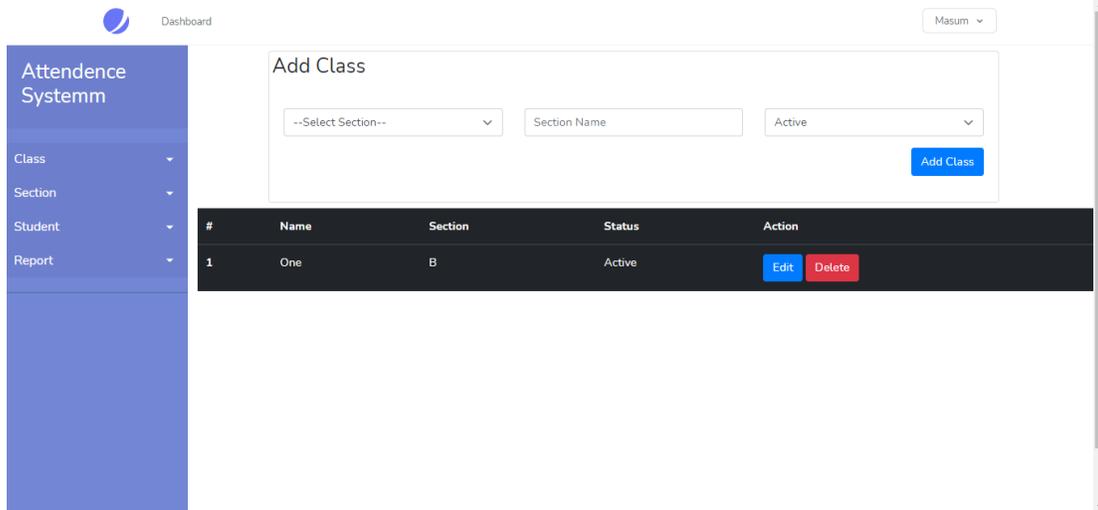
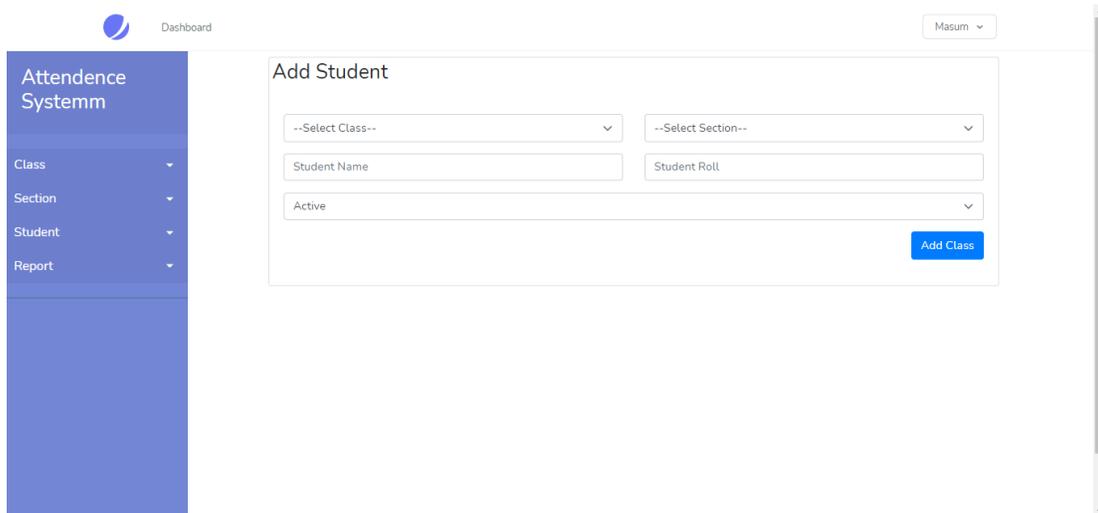Figure 5.2.2: Add Section

Add Student:

Figure 5.2.3: Add Student
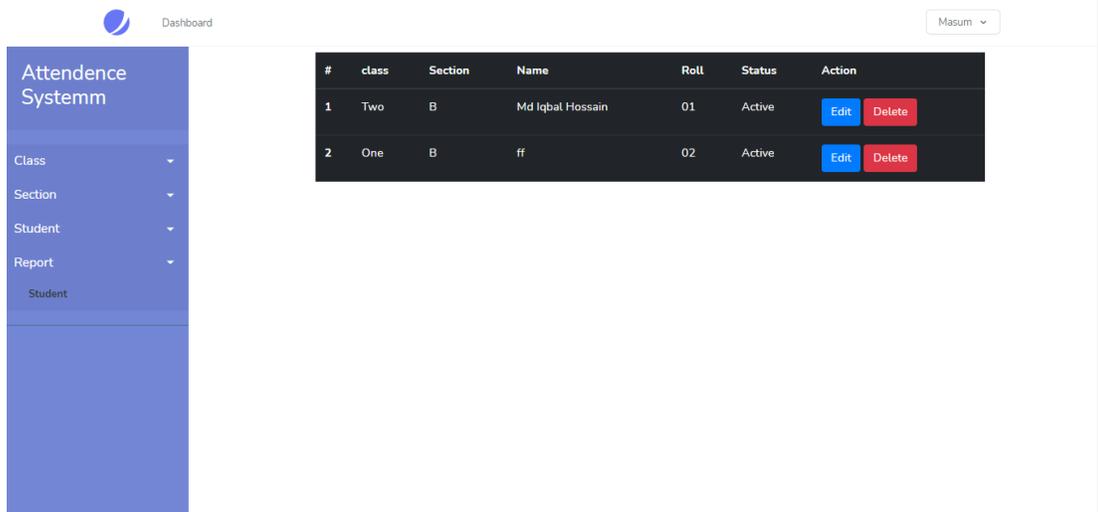
Attendance**:**

Figure 5.2.4: attendance
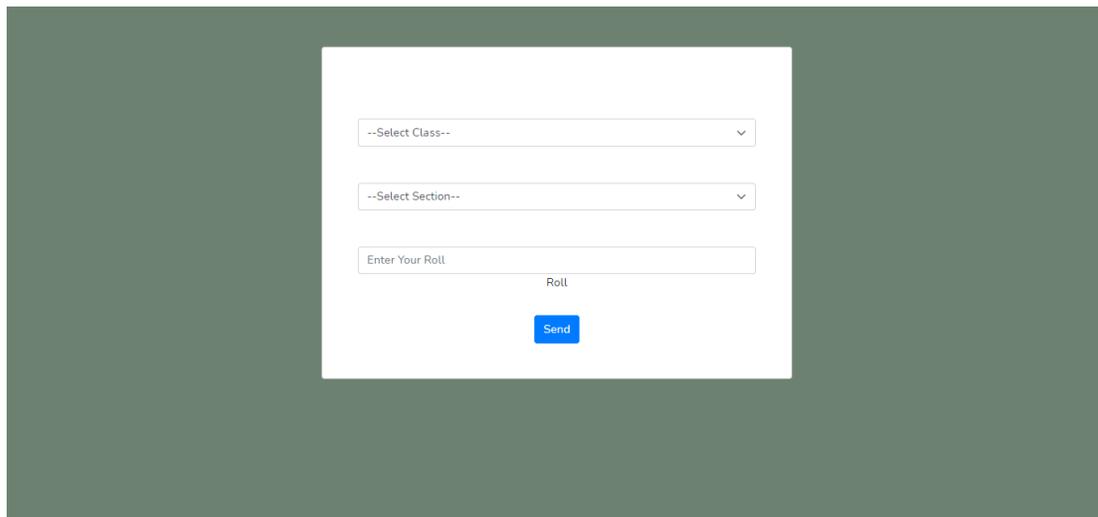
Take attendance:

Figure 5.2.5: Take attendance

5.3 Reports and Test Results

TABLE 5.4.1: TEST RESULTS AND REPORTS

Case Study	Input for the Test	Expected Results	Actual Results	Result
Add Classes	Correctly enter class/batch name.	To display "Successfully Data has been added"	Showed "Successfully Data has been added"	Passed
Add Sections	Correctly select class, and enter section name.	To display "Success"	Showed "Success"	Passed
Add Students	Correctly select batch/class, section and then enter students roll, name.	To display "Successfully Data has been added"	Showed "Successfully Data has been added"	Passed
Attendance	Invalid student	To display "Something went wrong"	Showed "Something went wrong"	Passed

Chapter 6

The society, the environment, and the economy long-term viability

6.1 Society's Impact

"Attendance System" is a web-based system with the potential to be a critical system for any institute. We are doing this project in order to reduce mental pressure for the class organizer. It will have a beneficial effect on society.

6.2 Environmental Effects

We created the program because we believe it will be useful, reduce mental pressure and also reduce time. Since there are many web applications Bangladesh is a country where, so it would imply very simple to understand use. All the Environmental considerations are favorable. There is no negative effect. on living things and the environment.

6.3 Ethical Considerations

Moral qualities are referred to as ethical features. of an application. For instance, trustworthiness, trust, rationality, and responsibility are all terms that might be used. There are so many web applications but most of them are not working properly. Some websites are risky to use. From the ethical perspective an application needs to work properly, correctly, maintain security, fulfill user requirements.

6.4 Plan for Longevity

For The term "project sustainability" refers to the long-term viability of a project efficiency or a level of quality that will last for a long time. We attempt to put in our best efforts in order to achieve our goals. Our application will be beneficial in the long run and will ensure service quality. We must keep our project's outcomes and objectives In tact. It will have a positive impact on quality control. of assistance. Everything is changing day by day so we need to cope with that and upgrade our application.

Chapter 7

Conclusion and Prospects

7.1 Deliberation and Conclusion

When we first got together, determine to create and effective routine then the main goals was to reduce time and mental pressure for class organizer. Because there is no routine management system which are created and updated automatically. Then we planned a design for our idea which are working automatically. Finally, we have completed our project with our dedication and hardworking. And we'll keep working on it to improve it day by day.

Appendix

Key points: HTML, CSS, Bootstrap, React JS, Laravel, MySQL Database, ER diagram, Use case diagram, Business process model.

HTML: The Hypertext Markup Language (HTML) is a markup language used to create documents that will be displayed in a web browser. HTML is the code that is used to structure a web page.

CSS: "Cascading Style Sheets" is the full form of CSS. CSS (Cascading Style Sheets) is a computer language for designing and organizing web pages (HTML or XML).CSS contains coding elements and is composed of these "cascading style sheets" which are mutually called CSS files. For example, CSS could be used to implement the cell padding of table cells, the style, thickness, and color of a table's border, and the padding around images or other objects.

Bootstrap: Bootstrap is a powerful front-end framework for building modern webpages and web applications. It's open-source and free to use, however many of the UI interface elements, such as buttons and forms, have HTML and CSS templates. JavaScript extensions are supported by Bootstrap. Although Bootstrap aids in the creation of a visually appealing, responsive website, the late loading time and battery

depletion issues may turn off certain mobile customers. Bootstrap features a lot of CSS and JS lines, which is a wonderful thing, but because of the terrible internet, it's also a bad thing.

Laravel: Laravel is a PHP framework for building websites. Laravel is a PHP framework for creating custom web applications. with the help of PHP. It Routing, HTML templating, and authentication are just a few of the things that can be a pain to implement. Laravel is a PHP web framework that is one of the best. There are other additional frameworks available in various languages. Ps

MySQL Database: MySQL is a free-to-use open source database management system. Relational Database Management System is another name for it (RDBMS). It makes use of SQL (Structured Query Language) (SQL). SQL is one of the most widely used languages for creating, accessing, and managing database content. It's known for its speedy processing, guaranteed authenticity, ease of use, and versatility.

PHPPHP: is a scripting language that runs on the server**.** It's embedded in HTML. PHP is used to manage databases, dynamic content, session tracking and build entire e-commerce sites. PHP is compact with a number of popular databases, including MySQL, Oracle, Sybase, PostgreSQL, Informix, and Microsoft SQL Server.

REFERENCES

[1] "attendance system for department of computer science and engineering"

URL: https://nevonprojects.com/mobile-attendance-system-project/

[2] "attendance system"

URL: http://soft-project.blogspot.com/2009/01/routine-management-system.html

[3] "attendance computerized class routine"

URL:https://itsourcecode.com/free-projects/php-project/attendance-management-system-in-php-with-source-code/

[4] Find out more HTML, available at

<<URL:https://www.peoplehum.com/glossary/attendance-management#:~:text=Attendance%20Management%20keeps%20track%20of,%E2%80%8D/>>, last visited on 21-12-2020 at 10:00 PM.

[5] Learn about Laravel

<<URL:https://laravel.com/docs/8.x/?fbclid=IwAR2-lmBejNkqUEOY-cIH7oczIzqkD07xpxb2Gudlg8f51_98a7antGgDTYw />>, last accessed on 25-12-2021 at 9:00 PM.

[6] Learn React Js, available at

<<URL:https://reactjs.org/docs/getting-started.html?fbclid=IwAR3y2mdfbV9WC01R04b9rcW8GEdjmX8rtmDv2j4RoE36LGlJ4LmPl_ayFmQ />>, last accessed on 30-12-2020 at 7:00 PM.

[7] Learn about Bootstrap, available at

<<URL:https://getbootstrap.com/docs/5.0/getting-started/introduction/?fbclid=IwAR3y2mdfbV9WC01R04b9rcW8GEdjmX8rtmDv2j4RoE36LGlJ4LmPl_ayFmQ />>, last accessed on 20-12-2021 at 11:00 PM.

[8] For Online search, available at <<URL: https://www.google.com/ >>, last accessed on 10-01-2021 at 5:00 PM.

[9] For Online search, obtainable at <<URL: https://www.youtube.com/ >>, last accessed on 15-01-2021 at 6:00 PM.

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