MINI PROJECT REPORT

on

STUDENT'S WEBSITE

Submitted in partial fulfilment for the completion of

BE-III Semester

In

INFORMATION TECHNOLOGY

By

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CERTIFICATE

This is to certify that the project work entitled "**STUDENT WEBSITE**" submitted to **CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY,** in partial fulfilment of the requirements for the award of the completion of III semester of B.E in Information Technology, during the academic year 2022-2023, is a record of original work done by **T Pavan Kumar(160121771062), M Tharshith (160121771048)** during the period of study in Department of IT, CBIT, HYDERABAD, under our supervision and guidance.

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ABSTRACT

College life is the most essential part of student life. It is when students get exposed to various skills both academically and non-academically. Prospering in this student life requires a proper timetable and a useful design of programs. He should be able to design his day in such a way that he would not miss any program. Though the student is a duller or a topper everyone requires notes at the end. These notes will help them to learn the concepts taught in class. Attendance is also the main thing that a student should take care of.

Our website provides a modern solution for the student where he can organize a day with both academic and co-curricular activities. At the same time, he can always have an eye on the attendance. Website has a feature of storing all the necessary files where students can store the important files like codes, pdfs,word docs etc...

This website making involves both the front end and back-end part where frontend involves HTML,CSS,REACT,REACTBOOTSTRAP and back-end involves

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1. INTRODUCTION

1.1. OVERVIEW

In the present generation every student is interested in various fields of life. Student himself get personally engaged in all activities. In a day he plays various roles like a classroom student,player,internship member etc... Student should be in attentive manner to complete the works in given time. For a better student life, he should be successful in completing all the works within time, In the same way he should also maintain attendance which is more essential in college life.

We developed our website in such a way that a student can maintain all his works in well organised manner. He can gather all the notes for his semester. He can also provide notes in such a way that all his fellow classmates can get it through a link and download. The main attraction of the website is it reminds the student about every work that has to be performed by him in the present day. I remind on all tasks such that it can be performed in time. It also displays him the timetable for giving a basic idea on the periods he has on that day.

Website also displays him attendance info such that he can maintain a attendance and plan the events based on the attendance that he possess. For this he need to enter whether he had attended or not attended the class. If he didn't attend, he could get a link of downloading notes of that such that he could prepare by referring it. He could also save various files which are more essential for him. He could save and retrieve them whenever he wanted to work with it.

1.2. PROBLEM STATEMENT

The aim of this project is helping a student to build a well organised student life which makes him develop academically and non-academically by setting reminders to his tasks which are needed to perform on that day, by displaying the timetable and displaying the attendance so that he could manage all academic and non-academic things.

1.3. ORGANISATION OF THE PROJECT

While structuring our website, we firstly listed out the main functionalities for a student. They are as follows:

- There must a way for a student to login with his personal username and password provided.
- Student should get a view of tasks on that day.
- Student should get a view of timetable for that day.
- Student should be able to check his attendance.

- He should be able to store and download the essential files like notes,images,codes.
- The interface of the website must be simple, and easy to use.

2. LITERATURE SURVEY

2.1. BASICS OF HTML

HTML (Hypertext Markup Language) is the standard language used to create web pages. It is a markup language, which means it is used to "markup" text in order to give it meaning and structure. HTML uses a series of tags and attributes to create different elements on a web page, such as headings, paragraphs, images, and links. These elements are then rendered by a web browser to display the final web page. HTML is the foundation of all websites and is essential for creating structured and well-formed web pages

2.2. BASICS OF CSS

CSS (Cascading Style Sheets) is a stylesheet language used to describe the presentation of a document written in HTML or XML. It is used to separate the presentation of a document from its structure and content. With CSS, you can control the layout, colours, fonts, and other visual elements of a web page. It allows you to create consistent and visually appealing designs across multiple web pages and devices. CSS can be applied to a single HTML element, multiple elements, or even an entire web page. It is a powerful tool for web developers and designers, as it allows them to create visually stunning and responsive websites with minimal effort.

2.3. BASICS OF JAVASCRIPT

JavaScript is a programming language that is primarily used to create interactive and dynamic elements on web pages. It is a client-side scripting language, which means that the code is executed by the user's web browser rather than on a server. JavaScript can be used to create things like responsive forms, image sliders, and interactive maps on a web page.

It allows developers to create web pages that can respond to user input in real-time and update the content on the page without requiring a full page reload. It can also be used to create web-based applications and it is one of the core technologies of the web alongside HTML and CSS. JavaScript is a versatile and widely used programming language that is essential for creating dynamic and interactive web pages.

2.4. BASICS OF REACTJS

React is a declarative, efficient, and flexible JavaScript library for building user interfaces. ReactJS is an open-source, component-based front-end library responsible only for the view layer of the application. React is used to create modular user interfaces. It promotes the development of reusable UI components that display dynamic data.

React uses a declarative paradigm, react application aims to be both efficient and flexible. It designs simple views for each state in your application and React will efficiently update and render just the right component when your data changes. The declarative view makes your code more predictable and easier to debug. A React application is made of multiple components, each responsible for rendering a small, reusable piece of HTML. Components can be nested within other components to allow complex applications to be built out of simple building blocks. A component may also maintain an internal state – for example, a Tab List component may store a variable corresponding to the currently open tab.

2.5. BASICS OF REACT BOOTSTRAP

React-Bootstrap replaces the Bootstrap JavaScript. Each component has been built from scratch as a true React component, without unneeded dependencies like jQuery. AS one of the oldest React libraries, React-Bootstrap has evolved and grown alongside React, making it an excellent choice as your UI foundation.

2.6. BASICS OF NODE

Node.js is an open-source and cross-platform JavaScript runtime environment. It is a popular tool for almost any kind of project! Node.js runs the V8 JavaScript engine, the core of Google Chrome, outside of the browser. This allows Node.js to be very performant. A Node.js app runs in a single process, without creating a new thread for every request. Node.js provides a set of asynchronous I/O primitives in its standard library that prevent JavaScript code from blocking and generally, libraries in Node.js are written using non-blocking paradigms, making blocking behaviour the exception rather than the norm. When Node.js performs an I/O operation, like reading from the network, accessing a database or the filesystem, instead of blocking the thread and wasting CPU cycles waiting, Node.js will resume the operations when the response comes back. This allows Node.js to handle thousands of concurrent connections with a single server without introducing the burden of managing thread concurrency, which could be a significant source of bugs.Node.js has a unique advantage because millions of frontend developers that write JavaScript for the browser are now able to write the server-side code in addition to the client-side code without the need to learn a completely different language. In Node.js the new ECMAScript standards can be used without problems, as you don't have to wait for all your users to update their browsers - you are in charge of deciding which ECMAScript version to use by changing the Node.js version, and you can also enable specific experimental features by running Node.js with flags.

2.7. BASICS OF EXPRESS

Express is a small framework that sits on top of Node.js's web server functionality to simplify its APIs and add helpful new features. It makes it easier to organize your application's functionality with middle ware and routing; it adds helpful utilities to Node.js's HTTP objects; it facilitates the rendering of dynamic HTTP objects. Express is a part of **MERN** stack, a full stack JavaScript solution used in building fast, robust, and maintainable production web applications.

2.8. BASICS OF MONGODB

MongoDB Atlas' document model enables developers to store data as JSON-like objects that resemble objects in application code. With MongoDB Atlas, use the tools and languages that you prefer. Manage your clusters with MongoDB CLI for Atlas, or IaC tools like Terraform or CloudFormation.

3. SYSTEM REQUIREMENTS & SPECIFICATIONS

3.1. FUNCTIONAL REQUIREMENTS

Functional requirements are the requirements that that define specific behaviour or function of the system.

- System Login
- Website: medium where the whole process is visually seen
- Database: the backbone of the website.

3.2. NON-FUNCTIONAL REQUIREMENTS

- Security: We are going to develop a software in which embedding secret text data in image. Only sender and receiver should be aware of encrypted file. User should not unfold the message regarding sent image as well as receiver information.
- Software Integrity: The Quality of the software is maintained in such a way that the database is secure and can only be accessed by the admin.

3.3. SOFTWARE REQUIREMENTS

- Operating System: Windows 7 or above
- React JS
- Mongo DB

3.4. HARDWARE REQUIREMENTS

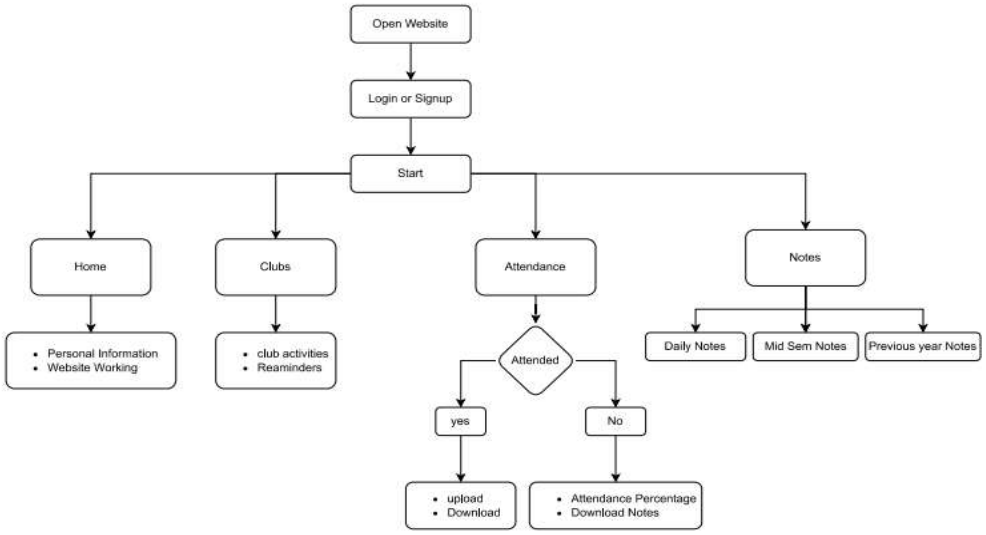
- x86 64-bit CPU (Intel / AMD architecture)
- 4 GB RAM
- 5 GB free disk space

4. SYSTEM DESIGN OR METHODOLOGY

4.1. SYSTEM ARCHITECTURE

The conceptual model that defines the structure, behaviour and views of our system is:

1. Firstly, the user can add tasks which are needed to be performed on that day.
2. Those will be stored database.
3. If it is a new user, they can sign up with us. Or else, use the login credentials to log on to our website.
4. If the user wants to change timetable,
    - He can click on edit and modify the time table
5. If the user want to store the notes he could store them ,He can also download them from the links provided.



Student's Website

5. IMPLEMENTATION

In this website, we are going to get benefitted by the notes and club remainders and how to manage your attendance, firstly we are going to login or signup, everything has been connected to the backend and the login and signup are authenticated. firstly, the website starts with a login page and if you haven't registered you can register there you will a link to register by that you can enter your respective details and then it redirects to login page and by enter your username and password it redirects to your dashboard

In dashboard you will find mainly 4 sections:

1.display of present events

2.Timetable and personal information

3.notes section

4.club events

In notes section , it will give 3 options ,like todays notes ,past week notes ,sem notes .in todays notes ,it will show todays time table and including with upload and download notes .if you have attended class you can upload notes and if you haven't attended the class ,you Can go to download notes there you will present all the notes uploaded by your classmates .like wise in past week notes you will find all the notes of the past 7 classwork days.

After that in sem notes section ,classmates or you can upload any notes that is present with you and it will be remained permanently in the data base and it will be available to all students present over in your class.

Thereafter, coming to club section .the events that are displayed in the club events section that are interested by the student and there will be a page with more club events and add events you can add events and also you can view other events that are performing around the campus

6. TESTING AND RESULTS

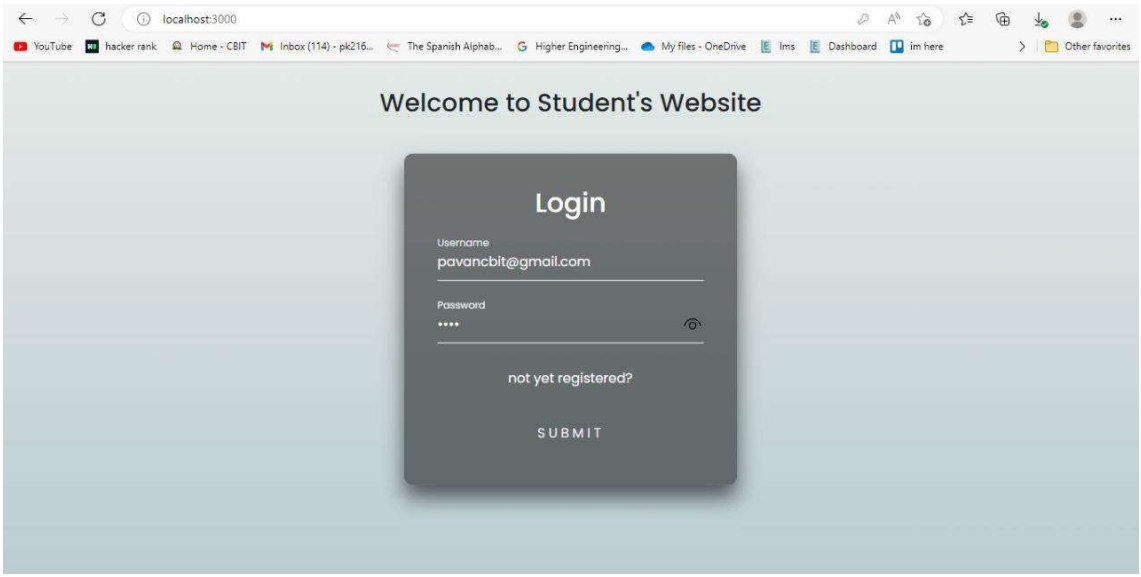


Figure 6.1: Website Screenshot

If the user need to login to website figure 6.1 shows the how the user can login to their dashboard

Figure 6.2: Website Screenshot

If the user need to register to the website then as shown in Figure 6.2 and Figure 6.4 ,they can add their details and enter into their dashboard

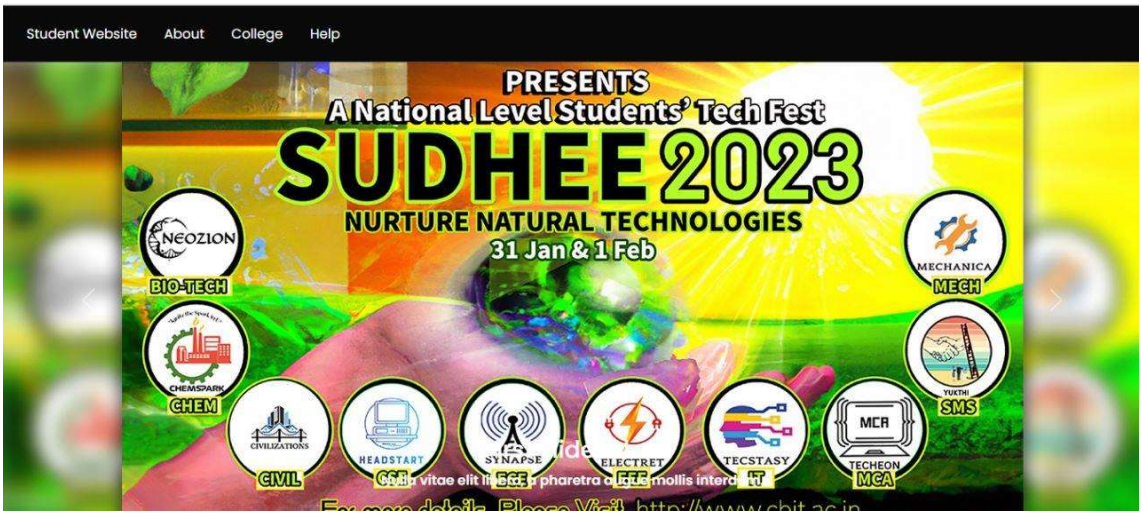


Figure 6.3: Website Screenshot

The display of present events that are undergoing in the college are displayed as shown in Figure 6.3 ,it displays the current events and upcoming events in a slideshow manner

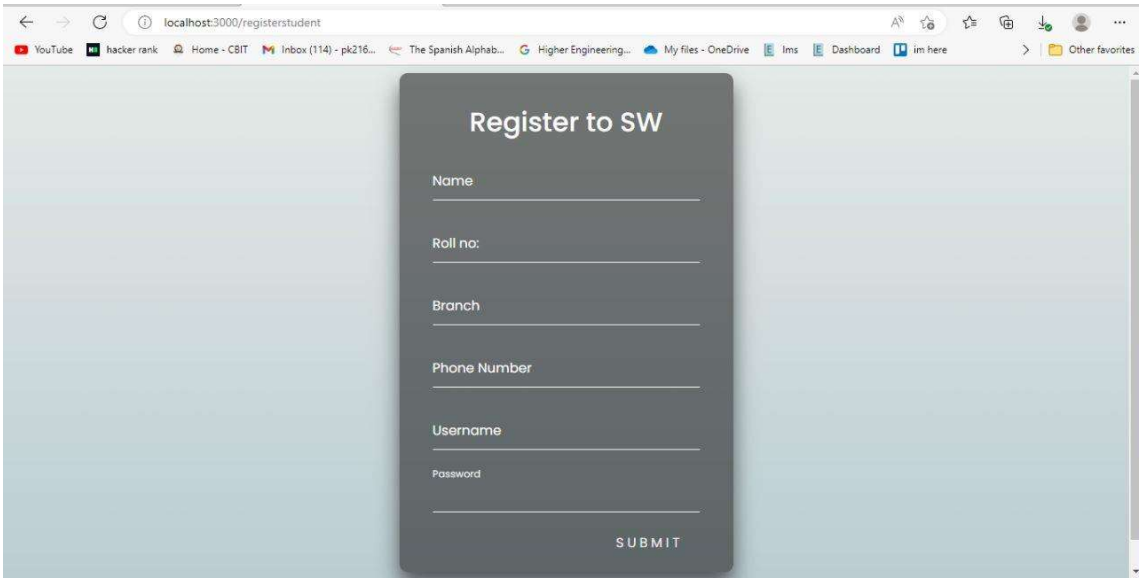


Figure 6.4: New User Registration

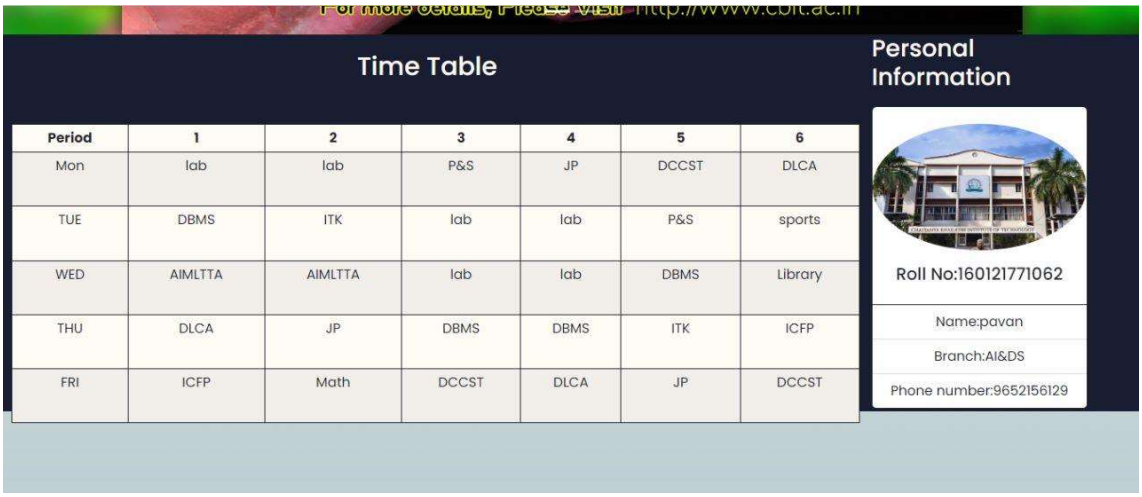


Figure 6.5: Timetable and Personal Information

As the student wants to know their timetable if they forget there will be a display of timetable and their personal information as shown in Figure 6.5.

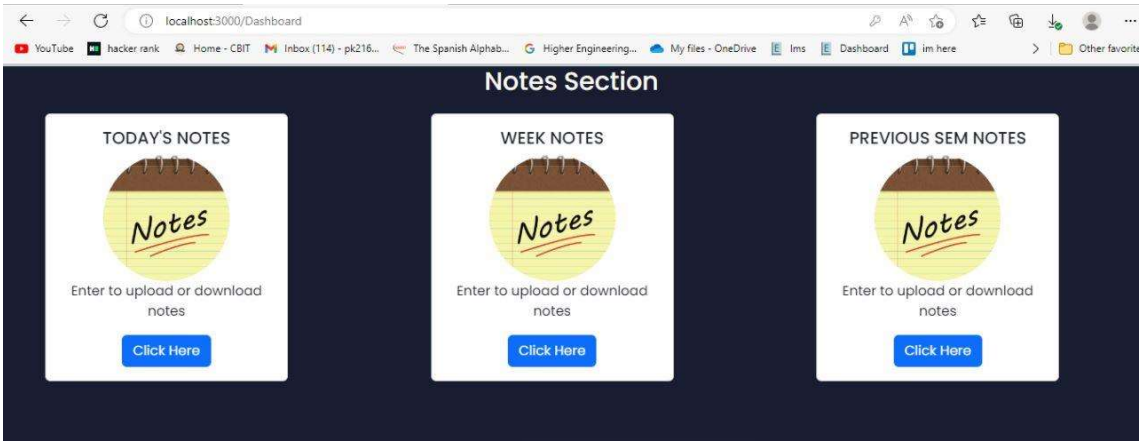


Figure 6.6: Notes

When the user wants to get the notes that they have missed due to some works then as shown in Figure 6.6, there will be a notes section which helps the student to get the notes ,like todays notes or previous week notes and previous sem notes or current sem notes

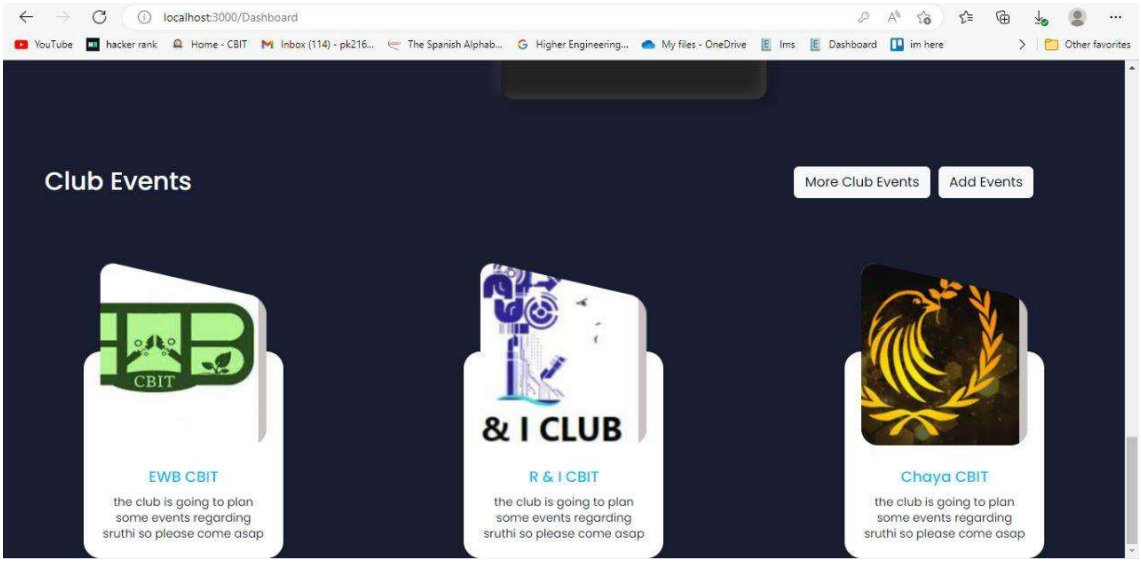


Figure 6.7: Club Remainder part

As day to day ,college clubs comes with the new ideas to present something to the students then this website as shown in figure 6.7, tells you the current events of your interested club and there is an option like to add the events and if you want to know other than your club events from more club events you can view all club events.

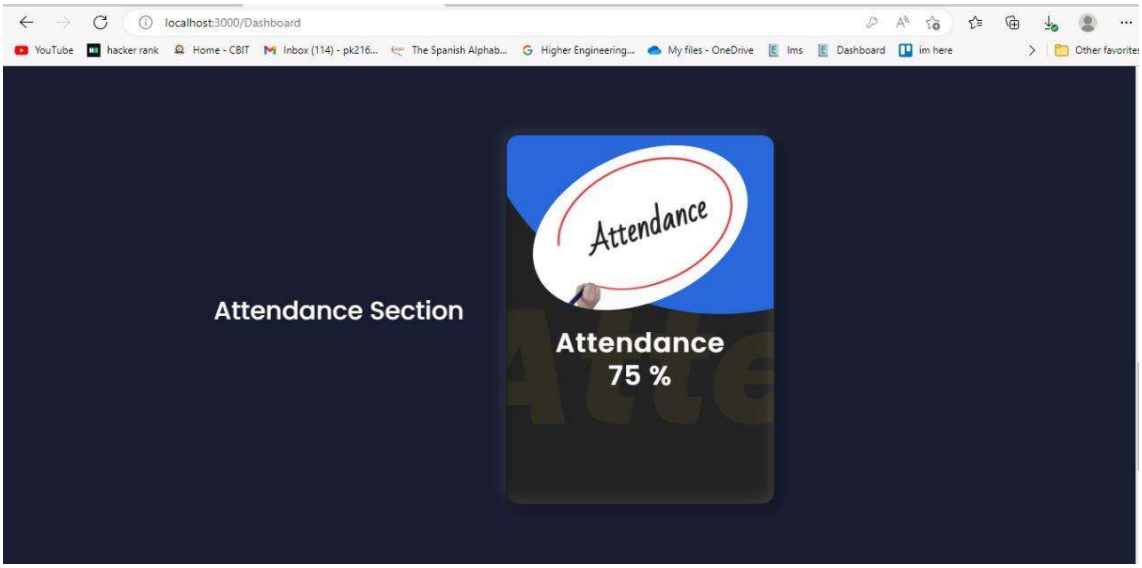


Figure 6.8: Attendance section

In colleges, attendance is very important, to see your overall attendance in college then as shown in Figure 6.8, you will get to know about the attendance performance.

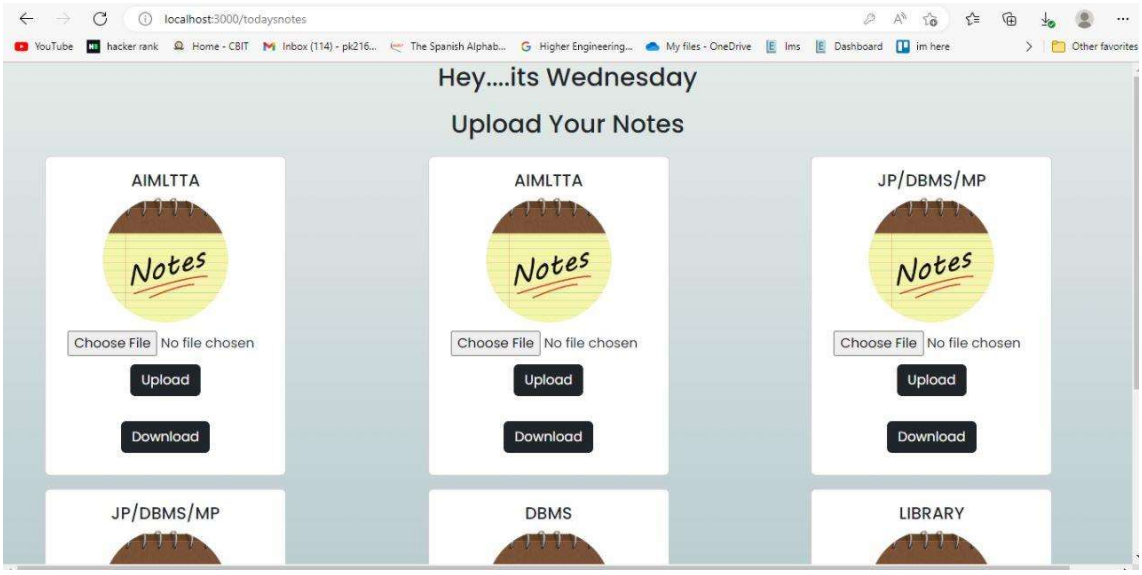


Figure 6.9: Present day subjects

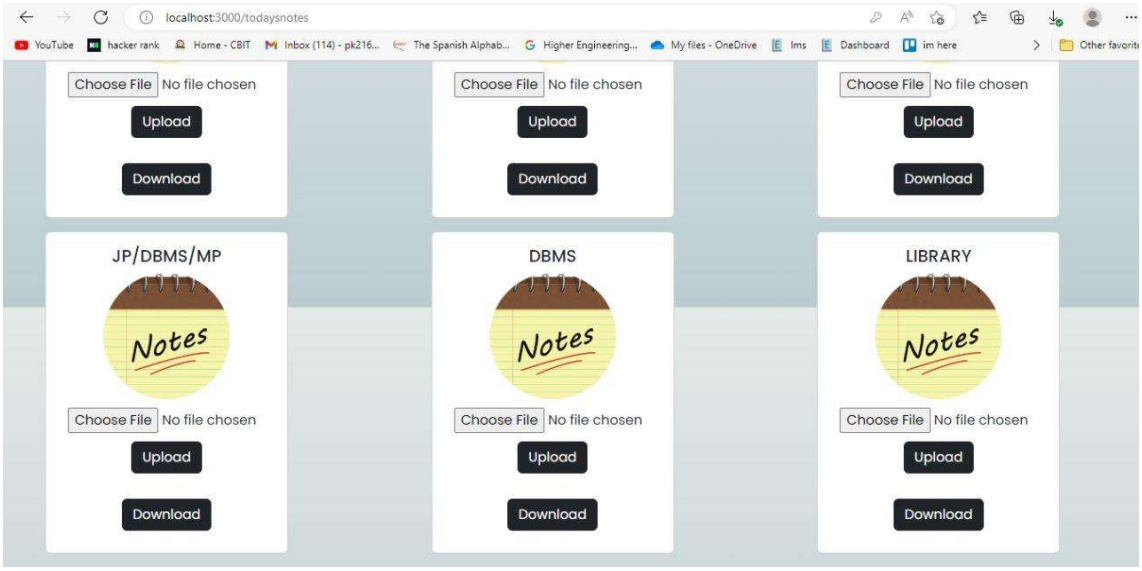


Figure 6.10: Present day subjects

To upload or download the daily notes from Figure 6.6, you will find todays notes by clicking you will see the website as shown in Figure 6.9 and Figure 6.10 tells the user if the user wants upload notes to help others he can contribute if not the user can download the notes by clicking the download button.

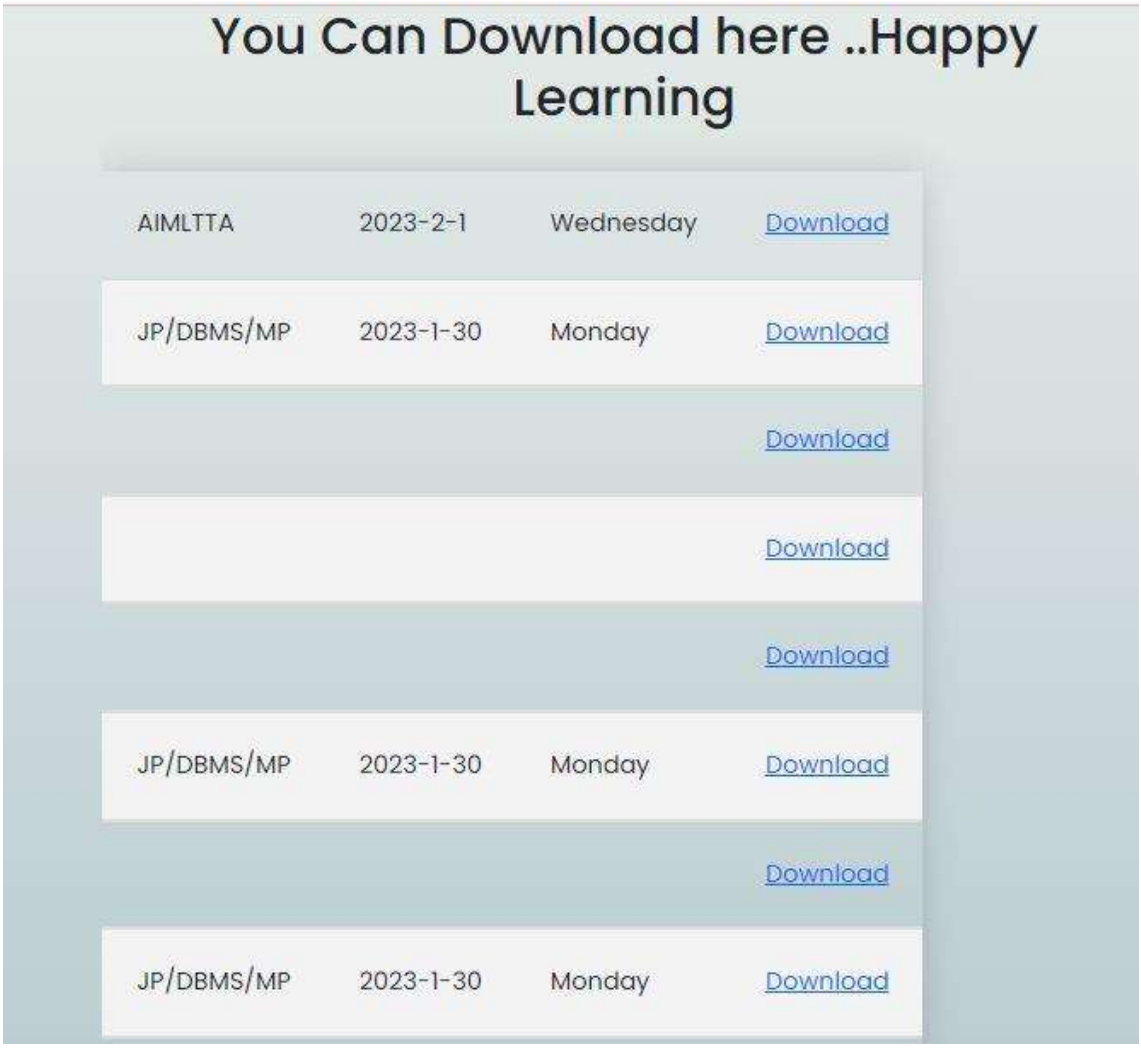


Figure 6.11: List of downloading files uploaded by students

By the contributions of various users the person who missed that class can download it as shown in Figure 6.11.as this way they can download the notes

Figure 6.12: Option for uploading and downloading notes

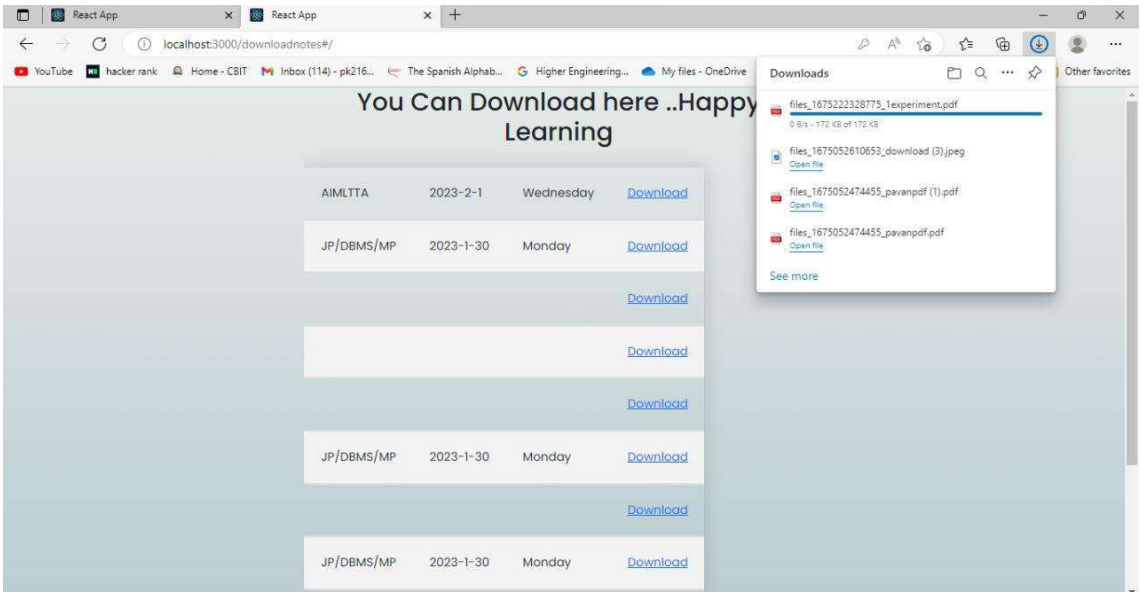


Figure 6.13: list of the notes that are downloaded

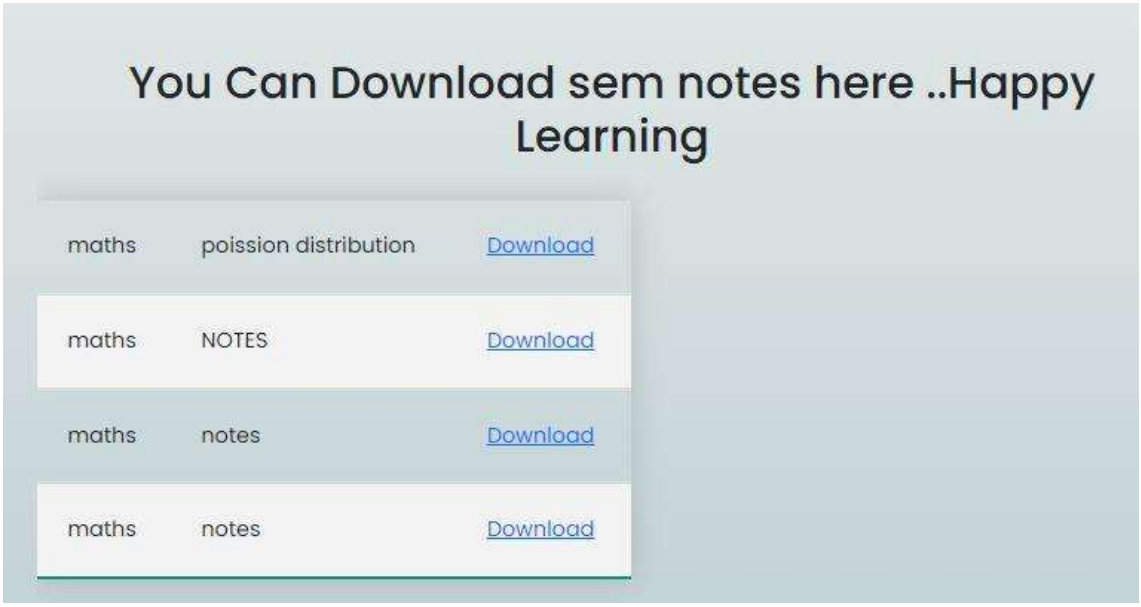


Figure 6.14: Downloading Sem notes

Same as like daily notes sometimes the user wants to get entire Sem notes then he can use figure 6.14 as the reference to download the entire Sem notes

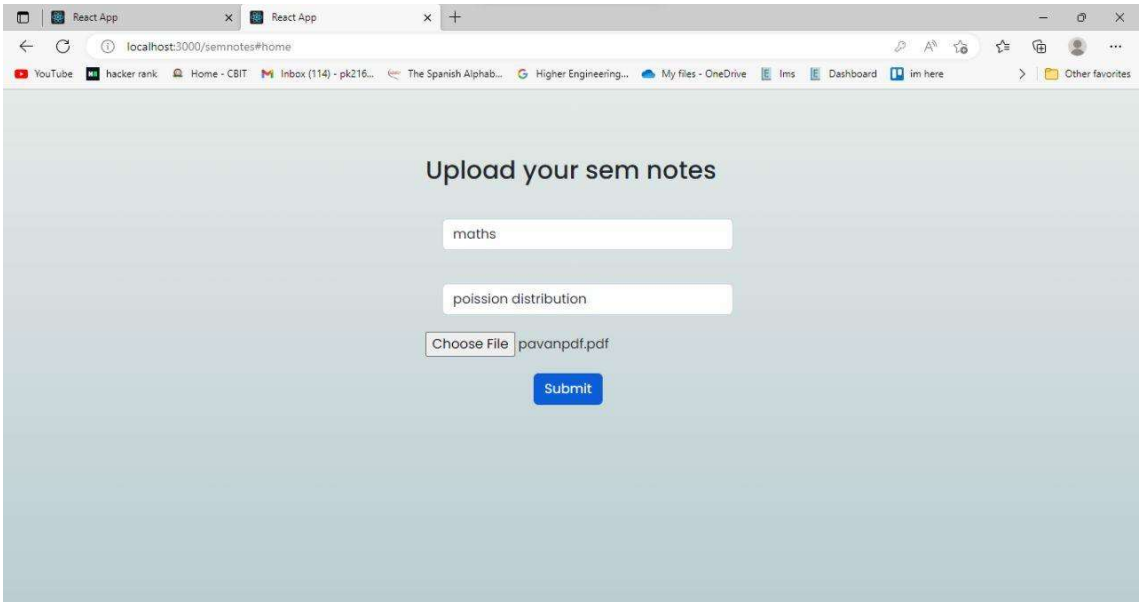


Figure 6.15: Page for uploading sem notes

To upload the entire Sem notes or separate Sem notes you can access it by choosing it in, as shown in Figure 6.6, by clicking on sem notes and you can upload notes by writing the title and description of the respective uploading notes.

7. FUTURE SCOPE

This website can be used by all college students for making their student life organized and plan the events that are to be performed. Such that a perfect student life can be built and helps him to develop a good student life.

When the students are really get busy with thier works then this webiste can play a major role to them in their day-to-day life .by imporving some apis we can also bring some attendace management system in the college and it helps the students to get their overall attendace as 75% .

8. CONCLUSION

In conclusion, this report has presented the main theme of developing the website and most essential features of website. It gave a brief description of usage of website and working of website.

Finally ,the website explains everything that student need to manage in their day-to-day works and helps to maintain a healthy environment in their colleges

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