



# Development of College Web Portal Using Frontend and Backend Language

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## ABSTRACT

The most goal of this system is to feature quality and automation to the method of managing student data within the laboratory. In real-world eventualities, as an example, on a university field, data is distributed to students within the sort of notifications, written manuals, and viva-voce messages. Today, it's vital to speak quicker and easier between students mistreatment new formats like itinerant technology, additionally as certain kinds of expression. The central plan of this project is that the implementation of a web-based field application for additional development of academic establishments and academic systems. This application is employed by students, lecturers and oldsters. In previous systems, all data had to be displayed in a very laborious file or web site. At identical time, looking for data is tough to access and takes an extended time to search existing websites. Therefore, to unravel this downside, you'll be able to use an internet primarily based application to create this method easier, safer, and fewer erring. this method provides a lot of economical data.

Keywords: Simple, Bug free, Efficient, Data Management, responsiveness ,Quality

## 1. Introduction

As time and technology advance, info has to be disseminated additional quickly. several manual processes are automatic, and increasing the advantages of automatic systems is currently a prime priority. thanks to the present demand for automatic systems, instructional infrastructures like universities needed manual systems to figure with mobile pc systems. Changes in info technology (IT) permit laboratories to leverage applications like databases and student info systems to change access to records. one amongst the changes that has emerged is web-based applications. These applications improvisations of ancient dealing process systems..

### 1.1. How it Works?

- Website (also written as a web site) is a collection of web pages and related content that is identified by a common domain name and published on at least one web server. Websites are typically dedicated to a particular topic or purpose, such as news, education, commerce, entertainment or social networking
- . Step 1 :Get a domain name and URL. It's important to choose a good domain name. ...
- Step 2: Set up an email address to match your domain name. ...
- Step 3: Find a web hosting company. ...
- Step 4: Design your website. ...
- Step 5: Build your website. ...
- Step 6: Add and manage your website content. ...
- Step 7: Publish your website

### 1.2. Innovativeness in our project

Our web application is developed in Bootstrap 5.1, PHP ,CSS and SQL

- 1.2.1 It is all browser compatibles.
- 1.2.2 It is device independent.

- 1.2.3 Faster development.
- 1.2.3 Easy to import code of other programming languages.
- 1.2.4 Easy to learn.
- 1.2.5 It is secure and trusted.
- 1.2.6 It allows document uploading as per the requirement.
- 1.2.7 It provides the facility of live chat and video calling.
- 1.2.8 Security to be provided to the individual profile.
- 1.2.9 Email and mobile number can be verify

### **1.3 Goals**

#### **1.3.1 Needs**

Determine the purpose of the website, such as providing information about the college, showcasing courses and programs, enabling online applications, or facilitating communication between students, faculty, and staff.

##### **1.3.1.1 Easy and Quick**

It is easy to use, and there are no rules and regulations and you can freely this web application. This web application is platform independent and portable.

The most significant advantage of working with a web-application is that they have a vast database of each student and staff profiles.

##### **1.3.1.2 Easy to register:**

Registering with a this application is quite simple. You are just required to update your basic facts like name, email, password, mobile number, gender, qualification, address and hobbies to start with. Once you register you can access anything you want and make changes according to you.

##### **1.3.1.3 Accuracy:**

This web-application provide accurate data of student and staff. This also provides accurate daily notes and events of college which makes student more facilitate and all this information is authorized information.

The information regarding the college which is mentioned in this web-application is accurate and authorize by recognized members of college.

##### **1.3.1.4 Dynamic:**

This web-application is dynamic means you can make changes according to your choice. Student staff can update profile based on their profession.

Developer can also make changes in web-application like he can give updation about daily events or notes of the college. and modify application according to new generations.

##### **1.3.1.5 Attractive Features:**

Look of website is very charming and it is fully professional with attractive colours. It is very creative with animation of transition.

By using Bootstrap 5.1 this web application is developed beautifully

##### **1.3.1.6 Customization Alternative:**

This web application include customize css . We have change font ,fontstyle , fontsize and background of this application.

You can buy a customized provider which might offer you extra subtle matches, better seek results, and you can even view contact info of different matching profiles.

#### **1.3.1.7 Expert Advice:**

According to our guide,s advise we have made some changes like we add registration and login form together so user can easily find it without changing the module, in about us we had perform various changes like adding principal information profile,etc

#### **1.3.1.8 Free Platform:**

Without any restrictions we can use this webapplication on any operating system like windows, linux,mac os . and also we can open this on any type of browser like google,Mozilla, internet explorer

Not only this we can easily use this web-application on any device like mobile,tab,pc's and laptop

#### **1.3.1.9 Background:**

Everytime for taking admission in college student need to go for college but due to this web application it becomes very easy for students to take admission online and doing all further activities online.

For checking intake of any department there is no need of going in the college everytime you can easily check it by sitting where you are.

Due to clean background i.e.,detail information about everything it very perfectly used web-application.

### **1.4. Basic Concepts**

Avoid hyphenation at the end of a line. Symbols denoting vectors and matrices should be indicated in bold type. Scalar variable names should normally be expressed using italics. Weights and measures should be expressed in SI units. All non-standard abbreviations or symbols must be defined when first mentioned, or a glossary provided

#### **1.4.1 Website:**

A Web site is a related collection of World Wide Web (WWW) files that includes a beginning file called a home page. A website, also written as web site, or simply site, is a set of related web pages typically served from a single web domain. A website is hosted on at least one web server, accessible via a network such as the Internet or a private local area network through an Internet address known as a uniform resource locator (URL).All publicly accessible websites collectively constitute the World Wide Web.

#### **1.4.2 Web Application:**

A web application is a computer program that utilizes web browsers and web technology to perform tasks over the Internet. Web applications use a combination of server-side scripts (PHP and ASP) to handle the storage and retrieval of the information, and client-side scripts (JavaScript and HTML) to present information to users. This allows users to interact with the company using online forms, content management systems, shopping carts and more. In addition, the applications allow employees to create documents, share information, collaborate on projects, and work on common documents regardless of location or device.

#### **1.4.3 Web Page .:**

Web pages are what make up the World Wide Web. These documents are written in HTML (hypertext markup language) and are translated by your Web browser. Web pages can either be static or dynamic. Static pages show the same content each time they are viewed. Dynamic pages have content that can change each time they are accessed

#### **1.4.4 Web development:**

Web development refers to building, creating, and maintaining websites. It includes aspects such as web design, web publishing, web programming, and database management. While the terms "web developer" and "web designer" are often used synonymously, they do not mean the same thing. Technically, a web designer only designs website interfaces using HTML and CSS. A web developer may be involved in designing a website, but may also write web scripts in languages such as PHP and ASP.

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## **2. Literature survey**

- A literature survey in a project report is that chapter which appear the various synthesize and research made in the field of your interest and the results already published, taking into account the various parameters of the project and the limit of the project. Literature survey helps to decide our direction for research. Literature survey helps to set a goal for your analysis – hence it giving you your problem statement. When you write a literature survey in respect of your project, you have to write the researches made by various analysts those are already published - & their methodology (which is basically their abstract) and the conclusions they have arrived at.

Sr. No	Title	Year	Publisher	Description
1	College website development	18 January 2019	Publisher IJRT	The Project of "College Website Management" has developed dynamically. This project will be very helpful for students in college to interact with the college. Any person can visit this website to obtain details about the college. This system is easy and convenient to use
2	College Management Web Application System Using Mean Stack	5 October 2019	Publisher is IJRASET	This system provides reliability, time savings, and easy control. Students and their parents can also use this application to view score, attendance, and curriculum details. Students can also view details and notifications anytime, anywhere. This application greatly simplifies and speeds up the process of processing and managing results. This reduces the effort and resources required in traditional processes. The proposed system features a new way of processing data and performs operations with a responsive and attractive user interface. Therefore, based on literature reviews and analysis of existing systems, we conclude that the proposed system not only supports university automation, but also helps digitize the system and thus contribute to the efficient use of resources
3	University Management system using model view controller	2 July 2017	Publisher is JETIR	The aim of this project is to manage each and every section, such as every Student, Teacher and Staff. It will show every updated notice given by University authorities. The purpose of the project is to build an application program to reduce the manual work for managing the Students, Registrations, and Classes

Fig. 1 - (a) first picture; (b) second picture.

### 2.2 Problem definition:

The current website of our college is a static website. So we can't make any changes immediately. Also it doesn't have any student database. So, to overcome these problems we are going to develop a dynamic website where we can change information or update information of college activities. Along with this we will add a student database.

### 3. Scope of the project

The designed system is provided from a pupil and schoolteacher's purpose of checkup. It aims to excerpt useful information from unshaped information practice the generalities of information reclamation, filtering, and secure arbitrary algorithms. This helps break the failings of being ERP systems. Our introductory approach is to develop intelligent Web-applications with Frontend and Backend language that square measure generally habituated figure this fashion easier, safer and fallible.. this system provides fresh provident information. Provides access to information related to sodalities, faculties,

uploaded assignments, notes, news and events, examinations, discussion forums, and diurnal schedules on the go. Our introductory approach is to develop intelligent Web-applications with Frontend and Backend language. that square measure generally habituated figure this fashion easier, safer and fallible.. this system provides fresh provident information.

### **3.2 Software Requirement Specification:**

#### 3.2.1 User Interfaces (Functional Requirements)

3.2.1.1 Front End : Bootstrap , CSS , HTML, javascript

3.2.1.2 Back End : MYSQL, PHP

#### 3.2.2 Hardware Interfaces (Hardware Requirements)

3.2.2.1 Processor: Any computer processor of system supported

3.2.2.2 RAM: 128mb ram

3.2.2.3 HDD: 1 gb or 2 gb

3.2.2.4 Graphics Card : integrated/dedicated

3.2.2.5 Internet Connection

#### 3.2.3 Software Interfaces (Software Requirements)

3.2.3.1 Programming Languages: PHP , html js

3.2.3.2 Web Base Technology: PHP

3.2.3.3 Operating System : Windows 10

3.2.3.4 Database Connectivity: MYSQL

3.2.3.5 Server: Xampp

#### 3.2.4 System Features (Functional Requirement)-

3.2.4.1 Ensure data accuracy.

3.2.4.2 Proper controls of higher officials.

3.2.4.3 Greater efficiency.

3.2.4.4 Better services.

3.2.4.5 User friendly and interactive.

3.2.4.6 Minimum time required & provide securit

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## **4. Methodology**

### **4.1 Algorithm:**

#### **4.1.1 Image Scaling algorithm:**

Step 1 - A scaling function  $H(t)$  is a function with a non-vanishing integral such that the set  $\{H(t - l), 1 \leq l \in Z\}$  generates a closed subspace [4, 5]. For example, if  $H(t)$  is the rectangular window function,  $N_i(t) = 1$  for  $0 \leq t \leq 1$ , then the set  $\{H(t - l), 1 \leq l \in Z\}$  generates the space of functions that are piecewise constant on  $[l, l + 1]$ . Suppose that a function  $x(t)$ , represented by a sequence of  $N + 1$  samples  $x(n)$ ,  $n = 0, 1, 2, \dots, N$ , is to be interpolated.

Step 2 - We may approximate  $x$  by expressing it as an expansion in terms of  $H(t) \hat{x}(t) = \sum_k x(k)H(t - k)$  where  $kh$  is the centre of the scaling function and the range of  $k$  depends on the support of  $H(t)$ . This equation allows us to calculate any  $P - 1$  interpolated points in each sample interval.

Step 3 - Although a number of functions are suitable as scaling functions, we focus our attention in the following on B-spline scaling functions because their compact support leads to simple and efficient algorithms for the calculation of the interpolated points.

#### **4.1.2. Algorithm For inserting record in mysql database:**

Step 1 - Create new database connection using `mysqli_connect()` returning connection variable.

Step 2 - If connection variable is null then connection is not successful And go to step no 3.If connection variable is not null then

Step 3 - 1accept record from the user which is to be inserted 3.2define a insert query 3.3call mysqli\_query() containing connection variable and insert query.

Step 4 - close the database connection using mysqli\_close()

**4.1.3. Algorithm For deleting record in mysql database:**

Step 1 - Create new database connection using mysqli\_connect() returning connection variable.

Step 2 - If connection variable is null then connection is not successful And go to step no

Step 3 - If connection variable is not null then

Step 3.1- accept key value from the user which row to be deleted

Step 3.2- define a delete query

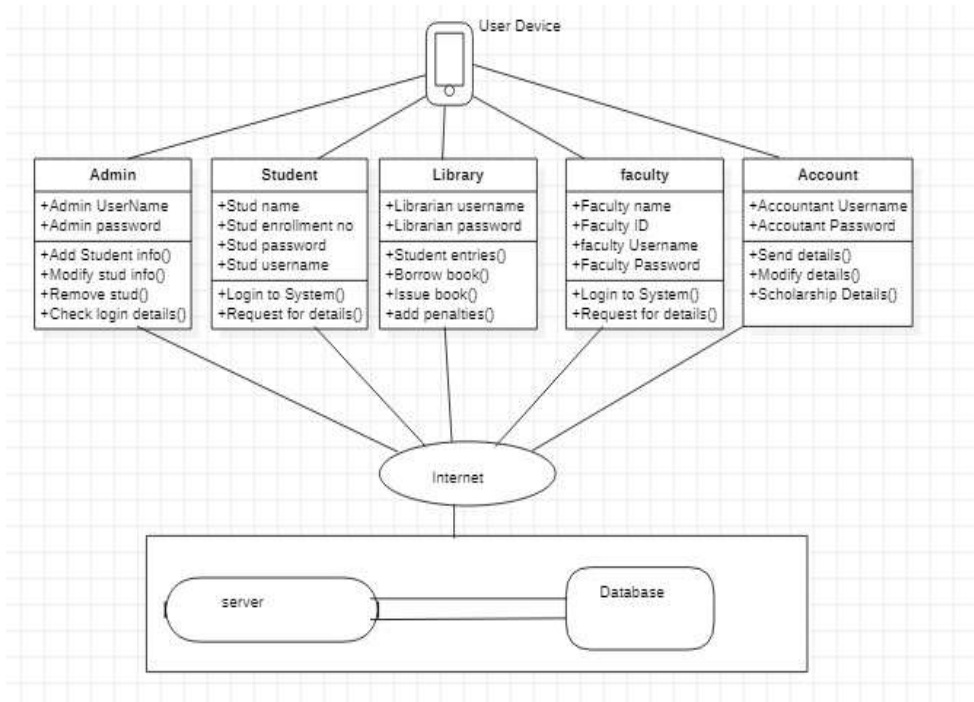
Step 3.3 -call mysqli\_query() containing connection variable and delete query

Step 4 - Close the database connection using mysqli\_close().

**4.2 System Architecture / Block Diagram**

College web-application is one of the most useful application.this provides more benefit to student and staff than any other college webapplication.this is secured and trusted web application to automate the process for utilization of various profile

The main responsibility of college web application is to provide security to student or staff profile. Here in secure and trusted web-appliaction . It has two main module admin and user.



**Detail Working**

The greatest advantage of working with site is that they have a huge data base of both student and staff

profiles. Therefore as a registered member, you can gain access to a vast number of options in front of you. And also you can made changes according to it. Admin can manage student,library,faulty and account.student will have access of enrollment number,password,username and name for login to system. librarian can manage student,library,faulty and account. librarian will have access of enrollment number,password,username and name for login to system.

Faulty can manage student,library,faulty and account.faulty can access students and also their own profile.

Accountant can manage student, library, faculty and account. Accountant will have access of enrollment number, password, username and name for login to system.

### What makes a high-quality Web application design?

All though there are books filled with Web design guidelines, there is a wide gap between a heuristic such as —make the interface consistent and the implementation of this advice. Furthermore, guidelines tend to conflict, and they offer the same advice for all types of Web sites, regardless of their purpose. Finally, guidelines require careful study and practice and might not be familiar to the occasional Web designer. As part of the Web Tango project, we explore automated approaches for helping designers improve their sites. Our goal is to create an interactive tool that helps steer occasional Web site builders away from bad designs and toward better ones — a —quality checker tool, analogous to a grammar checker in a word processor. What distinguishes our work from most others is that this tool is based on empirically derived measures computed over thousands of Web pages. We converted these measures, which characterize the informational, navigational, and graphical aspects of a Website, into profiles for a variety of site types. Our rudimentary design-checking tool uses these profiles to assess Web site designs; future versions will also suggest design improvements. One of the most pressing usability issues in the design of web sites is that of how to improve navigation and search. We are conducting a series of usability studies to address this problem, focusing on web sites that consist of large collections of loosely organized information. This article describes our method and presents preliminary results which suggest that use of faceted metadata can be useful both for the initial stages of highly constrained search and for the intermediate stages of less constrained browsing tasks.

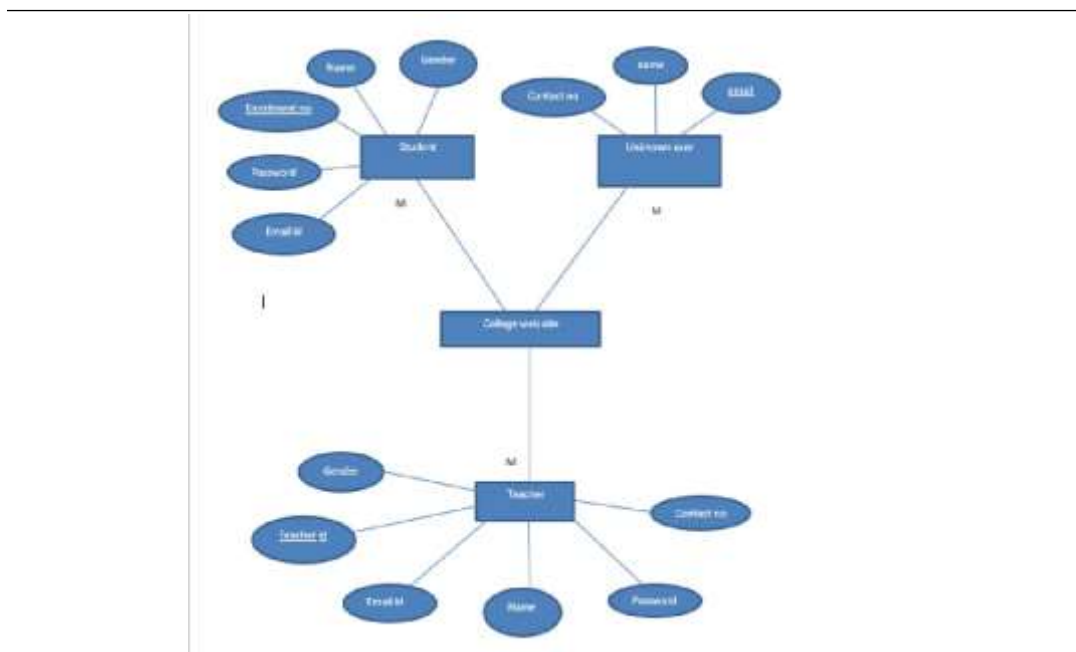
We also find that users state an interest in using different search interface types to support different search strategies

## 5. Details of Project Design, Working & Processes

### 5.1 Project design?

#### 5.1.1 ER -Diagram And Entity?

relationship model is usually the result of systematic analysis to define and describe what is important to processes in an area of a business. It does not define the business processes; it only presents a business data schema in graphical form. It is usually drawn in a graphical form as boxes (entities) that are connected by lines (relationships) which express the associations and dependencies between entities. An ER model is typically implemented as a database. In a simple relational database implementation, each row of a table represents one instance of an entity type, and each field in a table represents an attribute type. In a relational database a relationship between entities is implemented by storing the primary key of one entity as a pointer or "foreign key" in table of another entity



### 5.2 Project Planning?

Various Efforts in the Deployment of Our Project Are As Follows-

1. Finding project topic

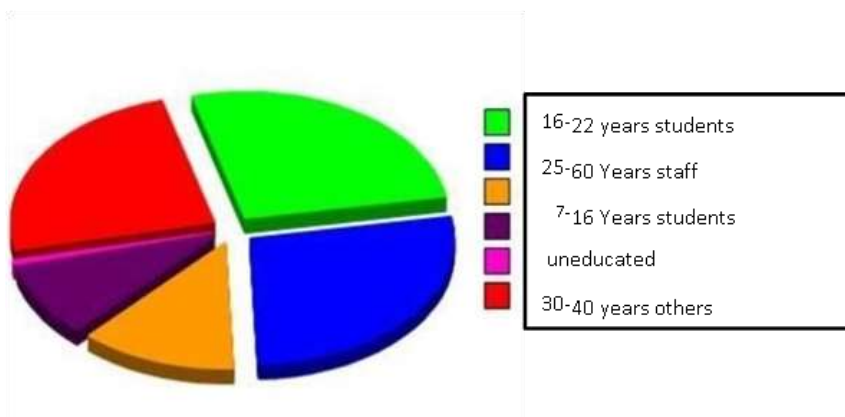
2. Finding Existing System and disadvantages
3. Collecting information
4. Project Proposal
5. Execution of plan in fifth semester
  - 5.1 Requirement Gathering- SRS
  - 5.2 Analysis- Scope & Feasibility Study
  - 5.3 Design – Algorithm, Architecture, Detail Working, ERD, DFD, UML.
- 5.4 Planning & Scheduling – efforts, Time & cost Estimation, WBS, Team Structure, Timeline Chart
6. Fifth Semester Project Report
7. Planning of sixth semester
  - 7.1 Implementing proposed system
  - 7.2 Developing GUI
  - 7.3 Dynamic programming
  - 7.4 Testing of project
8. Sixth Semester Project Report
9. Deployment
10. Maintenance

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## 6. Result and Application

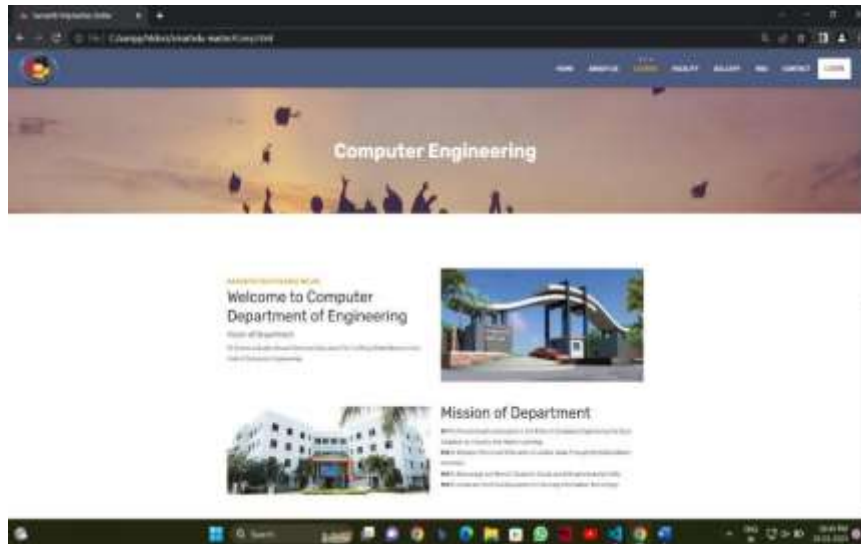
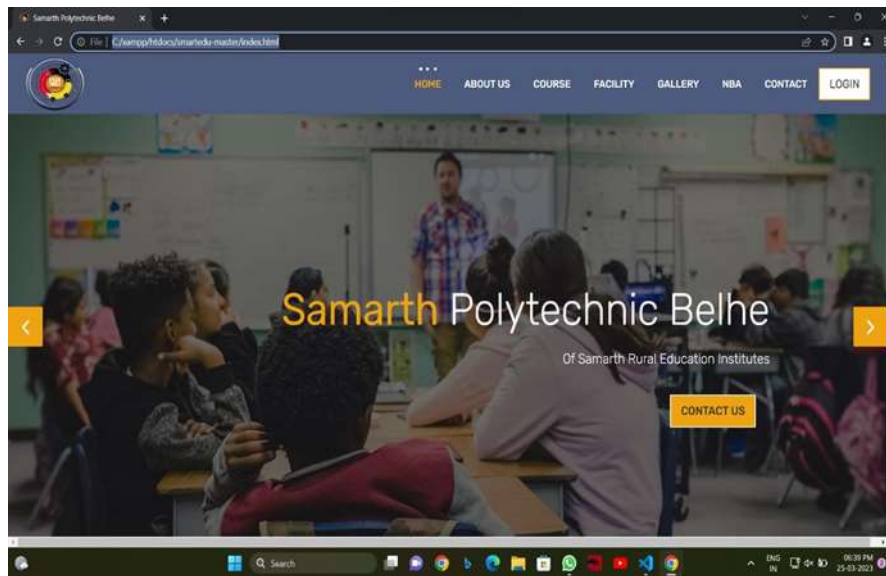
Pie charts are used in data handling and are circular charts divided up into segments which each represent a value. Pie charts are divided into sections (or 'slices') to represent values of different sizes. For example, in this pie chart, the circle represents a whole class. A pie chart is a type of graph in which a circle is divided into sectors that each represents a proportion of the whole. Pie charts are a useful way to organize data in order to see the size of components relative to the whole, and are particularly good at showing percentage or proportional data

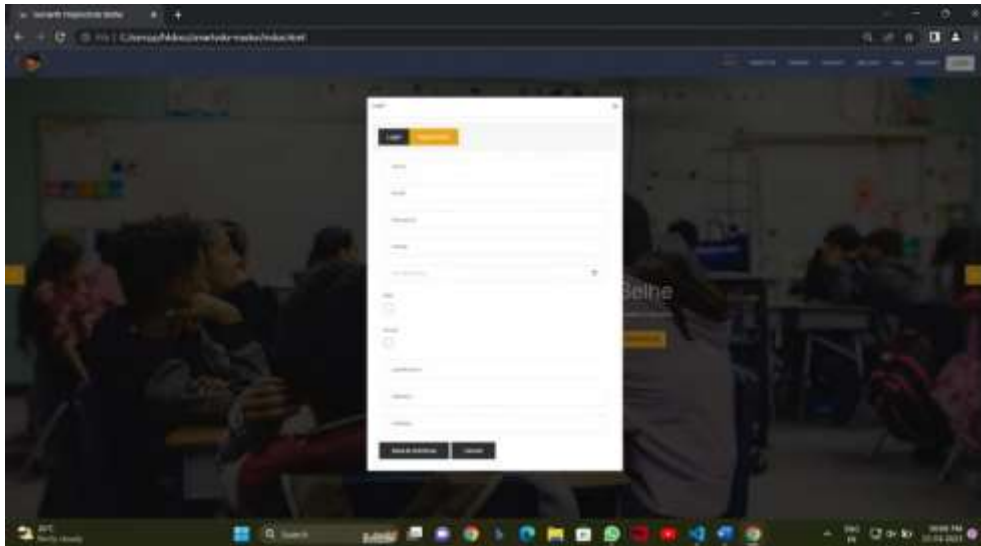
### 6.1.2 Use of This Site





### 6.1.2 GUI Implementation





## REFERENCES

1. [https://www.google.com/url?sa=t&source=web&rct=j&url=https://ijrpr.com/uploads/V3ISSUE11/IJRPR8234.pdf&ved=2ahUKEwisgeqoj\\_f9AhV67zgGHUjUC3MQFnoECBYQAQ&usg=AOvVaw0HwPvxQNBrZrT-NshjMweN](https://www.google.com/url?sa=t&source=web&rct=j&url=https://ijrpr.com/uploads/V3ISSUE11/IJRPR8234.pdf&ved=2ahUKEwisgeqoj_f9AhV67zgGHUjUC3MQFnoECBYQAQ&usg=AOvVaw0HwPvxQNBrZrT-NshjMweN). WebDesign With HTML & CSS : HTML & CSS Complete Beginner's Guide Paperback – 31 October 20
2. Website Development Using Html And Css - A Practical Step-By-Step Guide To Develop E-Commerce Store Paperback – 1 January 2012
3. Web Technologies: HTML, JAVASCRIPT, PHP, JAVA, JSP, ASP.NET, XML and Ajax, Black Book: HTML, Javascript, PHP, Java, Jsp, XML and Ajax, Black Book Paperback – 1 January 2009
4. Title - 3PHP 8 for Absolute Beginners: Basic Website and Web Application Development  
 Edited by - Jason Lengstorf Thomas Blom Hansen Steve Prettyman  
 Publisher- APress; 3rd ed. edition  
 Publisher Year - 26 November 2022
5. Title - Web Technologies: HTML, JAVASCRIPT, PHP, JAVA, JSP, ASP.NET, XML and Ajax, Black Book: HTML, Javascript, PHP, Java, Jsp, XML and Ajax, Black Book  
 Author - Kogent Learning Solutions Inc. and Dreamtech Press  
 Publisher -Dreamtech Press; 1st edition  
 Publisher Year - 1 January 2009