

# GUJARAT TECHNOLOGICAL UNIVERSITY

Chandkheda,  
Ahmedabad Affiliated



## GOVERNMENT ENGINEERING COLLEGE, GANDHINAGAR

A  
Project Report  
On  
**College Resource Management Web Application**

Under Subject of Web  
Programing  
B. E. Semester – 6  
(Computer Engineering)

Submitted by:

Group: Team Hustlers

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Academic year (2023-24)



# **Gujarat Technological University**

**Government Engineering College,**

**Gandhinagar**

**Computer Engineering Department**

**2023-24**

## **CERTIFICATE**

This is to certify that the project entitled **College Resource Management Web Application** has been carried out by **Paliya Dipak, Bhatt Vraj, Solanki Rushik, Panchal Jigar** and **Dharmik** under my guidance in partial fulfilment of the degree of Bachelor of Engineering in Computer Engineering (6<sup>th</sup> Semester) of Gujarat Technological University, Ahmedabad during the academic year 2023-24.

**Date :**

**Sign of Faculty Guide**  
Prof. Yogendra P. Tank

**HOD, CE Department**  
Dr. D. A. Parikh

## **Abstract**

In the digital age, effective communication and seamless access to information are paramount in educational institutions. This project presents the development of a comprehensive college website designed to streamline communication between faculty, students, and administration. The website serves as a centralized platform for managing faculty and student profiles, disseminating notices, distributing assignments, and publishing timetables. Through intuitive interfaces, users can easily upload, view, and delete notices, ensuring timely dissemination of important information. Allowing faculty to distribute assignments and students to submit them online. Timetable functionalities enable users to access class schedules effortlessly, promoting organizational efficiency and academic success. By harnessing the power of technology, this project aims to enhance collaboration, transparency, and productivity within the college community.

## **Acknowledgement**

I express my cavernous sense of obligation and gratitude to my guide **Mr. Yogendra P. Tank** for his genius guidance and constant encouragement throughout this project work. I am highly obliged as my honorable guide for providing me such an opportunity to carry out research work under her continuous guidance. I extend my sincere thanks to **Dr. D. A. Parikh**, Head of department of Computer Engineering has devoted his valuable time and shared his expertise knowledge. I also wish my heartfelt appreciation to my friends, colleagues, who have rendered their support towards this successful work.

**Paliya Dipak,  
Bhatt Vraj,  
Rushik Solanki,  
Dharmik,  
Panchal Jigar**

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## **Ch 1 : Introduction**

### **1.1 Project Description**

Our college website is a comprehensive online platform designed to enhance communication and information dissemination within the college community. It features user-friendly interfaces for managing faculty and student profiles, uploading, viewing, and deleting notices, distributing assignments, and publishing timetables. The website streamlines administrative tasks, fosters collaboration, and promotes academic success by providing a centralized hub for accessing essential college-related information.

### **1.2 Advantages**

- **Centralized Information Hub:**
  - The website provides a centralized platform for accessing faculty and student profiles, notices, assignments, and timetables, reducing the need for multiple communication channels and physical documentation.
- **Improved Communication**
  - Facilitates efficient communication between faculty, students, and administration by providing easy access to important information, thereby reducing communication gaps and misunderstandings.
- **Convenience:**
  - Users can access the website from any device with an internet connection, offering convenience and flexibility in accessing critical information anytime, anywhere.
- **Enhanced Organization**
  - The project promotes organizational efficiency by digitizing administrative processes such as notice distribution, assignment management, and timetable publication, reducing manual efforts and potential errors.
- **Time-Saving:**
  - Automates repetitive tasks such as notice dissemination and assignment submission, saving time for both faculty and students and allowing them to focus more on academic pursuits.

## 1.3 Disadvantages

- **Technical Challenges**
  - Maintenance and technical issues such as server downtime, software bugs, or compatibility issues with different devices and browsers may arise, affecting user experience and accessibility.
- **Digital Divide:**
  - Some students or faculty members may not have access to internet-enabled devices or may not be proficient in using technology, leading to disparities in accessing and utilizing the platform effectively.
- **Privacy Concerns:**
  - Storing sensitive information such as student and faculty profiles online may raise privacy concerns, necessitating robust security measures to protect against data breaches and unauthorized access.
- **Dependency on Technology:**
  - The project's success relies heavily on technology infrastructure and internet connectivity, making it vulnerable to disruptions due to power outages, network failures, or cyber-attacks.
- **Resistance to Change:**
  - Resistance from users accustomed to traditional methods of communication and documentation may hinder the adoption and acceptance of the website, requiring effective change management strategies to overcome.



## Ch 2 : Problem identification and definition

- **Communication Inefficiencies:**
  - Communication between faculty, students, and administration is fragmented, leading to missed notices, unclear instructions, and difficulty in accessing timely information.
- **Manual Administrative Processes:**
  - Administrative tasks such as notice distribution, assignment management, and timetable publication rely heavily on manual efforts, resulting in inefficiencies, errors, and delays.
- **Limited Accessibility:**
  - Access to important college-related information, including notices, assignments, and timetables, is limited by physical location and traditional communication channels, hindering convenience and flexibility for users.
- **Information Overload:**
  - Students and faculty may be overwhelmed by the volume of information distributed through various channels, leading to difficulty in prioritizing and accessing critical information.

The project aims to address the identified problems by developing a comprehensive college website that serves as a centralized platform for managing faculty and student profiles, disseminating notices, distributing assignments, and publishing timetables. By digitizing administrative processes and enhancing communication channels, the website seeks to streamline information dissemination, improve accessibility, and promote organizational efficiency within the college community.

## Ch 3:Project analysis

### 3.1 Features of the system:

- **User Authentication and Profiles:**
  - Allow users to register and create accounts with unique credentials.
  - Provide different access levels for faculty, students, and administrators.
  - Enable users to manage their profiles, including updating personal information, profile pictures, and contact details.
- **Notice Management:**
  - Allow administrators to upload notices.
  - Allow faculties to upload notices.
- **Assignment Distribution:**
  - Allow faculty to upload assignments, including instructions and any accompanying files or resources.
  - Enable students to view assigned tasks and download necessary materials.
- **Timetable Publication:**
  - Provide a comprehensive view of class schedules, including lecture timings, room assignments, and faculty names.
  - Allow users to filter timetables based on courses and departments.
- **Mobile Compatibility:**
  - Design the website to be responsive and mobile-friendly, ensuring optimal user experience across devices of various screen sizes and resolutions.
  - Test the website on different mobile platforms and browsers to ensure compatibility and usability.

## **3.2 Modules of the system**

The system comprises several interconnected modules, each serving a specific function to facilitate effective communication, information dissemination, and administrative tasks within the college community. These modules streamline various processes, enhance user experience, and promote organizational efficiency.

### **1) Admin**

- Admin will be responsible for maintaining the system.
- Admin can change role of faculties.

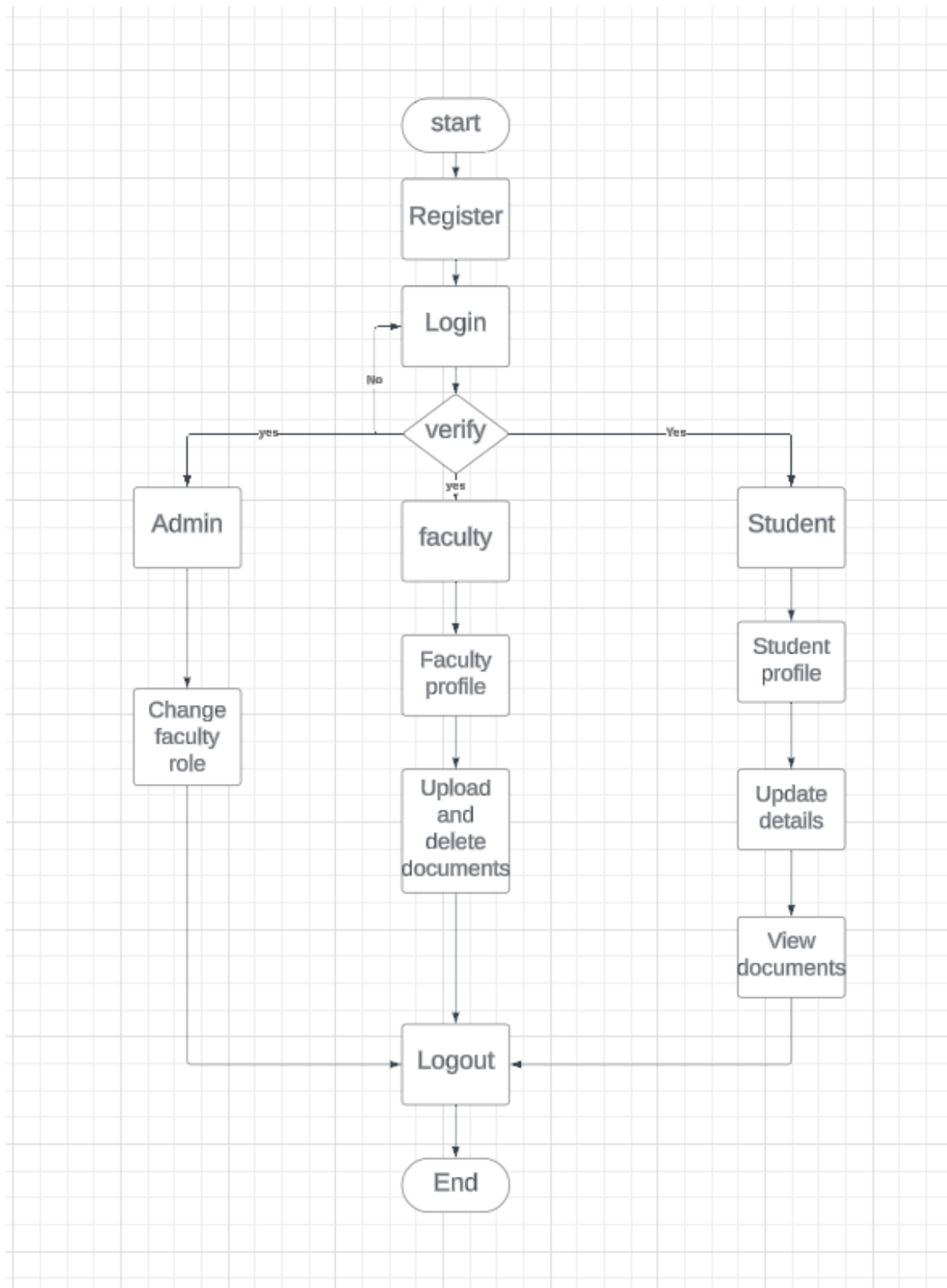
### **2) Student**

- Student can register and then login only with “@gecg28.ac.in” email.
- Students can view their profile and see their class, batch and branch.
- Students can update their profile details.
- Students can view their assignments with respect to their batches, timetables with respect to their class and notices with respect to their branch.

### **3) Faculty**

- Faculty can register and then login only with “@gecg28.ac.in” email.
- Faculty can upload and delete assignments, timetables, notices.
- Faculty can select batch, branch and class while uploading assignments, timetables and notices.
- Faculty can view their profile and see their assigned class, batch and branch.

### 3.3 Working flow of the system



### **3.4 Development tools and technologies:**

#### **1. Xampp server:**

- XAMPP stands for Cross-Platform (X), Apache (A), MySQL (M), PHP (P) and Perl(P).
- It is a simple, lightweight Apache distribution that makes it extremely easy for developers to create a local web server for testing purposes.
- Everything you need to set up a web server - server application (Apache), database (MySQL), and scripting language (PHP) - is included in a simple extractable file. XAMPP is also cross-platform, which means it works equally well on Linux, Mac and Windows.

#### **Use:**

- XAMPP is extremely useful when developing a website on your local machine.
- This allows the developer to test out changes before making those changes live saving time and effort.



**( XAMPP SERVER LOGO )**

#### **2. Google chrome browser:**

- Google Chrome browser is an open source program for accessing the World Wide Web and running Web-based applications.
- Its features include synchronization with Google services and accounts, tabbed browsing, and automatic translation and spell check of web pages.
- It also features an integrated address bar/search bar, called the omnibox.

**Use:**

- PHP files first need be processed in a web server before sending their output to the web browser.



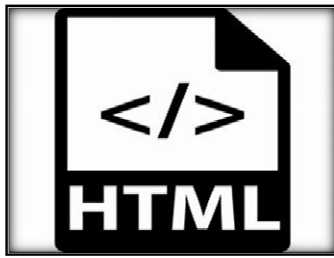
( GOOGLE CHROME BROWSER LOGO )

**Front-end:****1. HTML/HTML5:**

- First developed by Tim Berners-Lee in 1990 HTML is short for Hypertext Markup Language. HTML is used to create electronic documents (called pages) that are displayed on the World Wide Web. Each page contains a series of connections to other pages called hyperlinks.
- HTML5 is the latest and most well adopted standard of Hyper Text Markup Language. Although it is not a programming language, it is still an essential component of web applications, and even sometimes modern desktop and mobile applications. Familiarity with the HTML5 specification is an important skill that all front-end developers must possess.

**Use:**

- It is used to create web pages. HTML is used for specifying colors, text formatting, aligning, etc. HTML is very easy to learn. HTML can be used in a PHP file.



( HTML )



( HTML 5 )

## 2. CSS/CSS3:

- Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language such as HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.
- CSS3 version introduced new features that allowed developers to style HTML elements with less CSS code. CSS3 is most notorious for modules that speed up the specification process. At first, browsers did not support CSS3 features, and it took a while for them to become fully compatible.

### Use:

- The style sheets are cascading in that there can be a number of conflicting rules that can be applied to a particular tag but the most specifically targeted rules will override less specifically targeted rules.



( CSS )



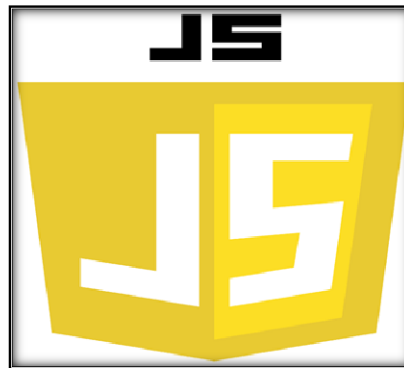
( CSS 3 )

### **3. JAVASCRIPT:**

- JavaScript is a programming language that started off simply as a mechanism to add logic and interactivity to an otherwise static Netscape browser.
- In the years since its introduction, it has not only supplanted a variety of other competing languages and technologies to become the standard for browser-based programming, but it has also expanded beyond the client space to become a dominant language on the server side, as well.

#### **Use:**

- JavaScript is used as client side to check and verify client details and PHP is server side used to interact with database.
- In PHP, HTML is used as a string in the code. In order to render it to the browser, we produce JavaScript code as a string in the PHP code.



**( JAVASCRIPT )**

#### **Back-end:**

##### **1. PHP:**

- PHP is a programming and scripting language to create dynamic interactive websites. Generally, PHP is server side Programming language.
- When a user request a web page that contains PHP code, the code is processed by the PHP module installed on that web server. The PHP pre-processor then generates HTML output to be displayed on the user's browser screen.



**Use:**

- A good benefit of using PHP is that it can interact with many different database languages including MySQL.



**( HYPertext PRE PROCESSOR )**

**2. DATABASE(MySQL):**

- MySQL is a relational database management system based on SQL – Structured Query Language.
- The application is used for a wide range of purposes, including data warehousing, e- commerce, and logging applications.
- The most common use for mySQL however, is for the purpose of a web database.

**Use:**

- MySQL is a database system used on the web.
- MySQL is very fast, reliable, and easy to use.

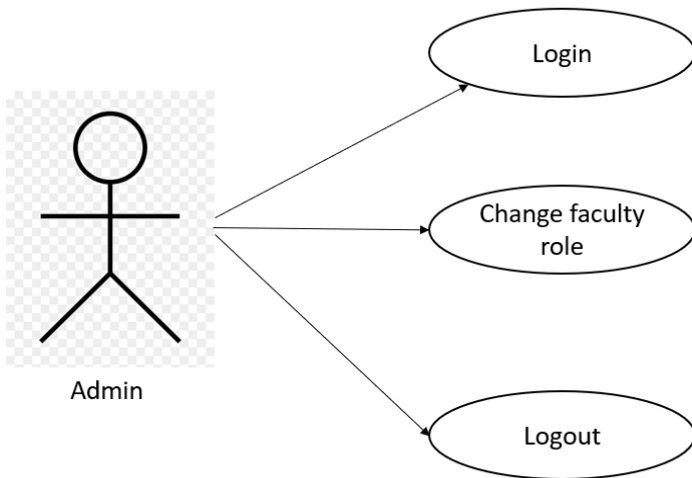


**( MYSQL )**

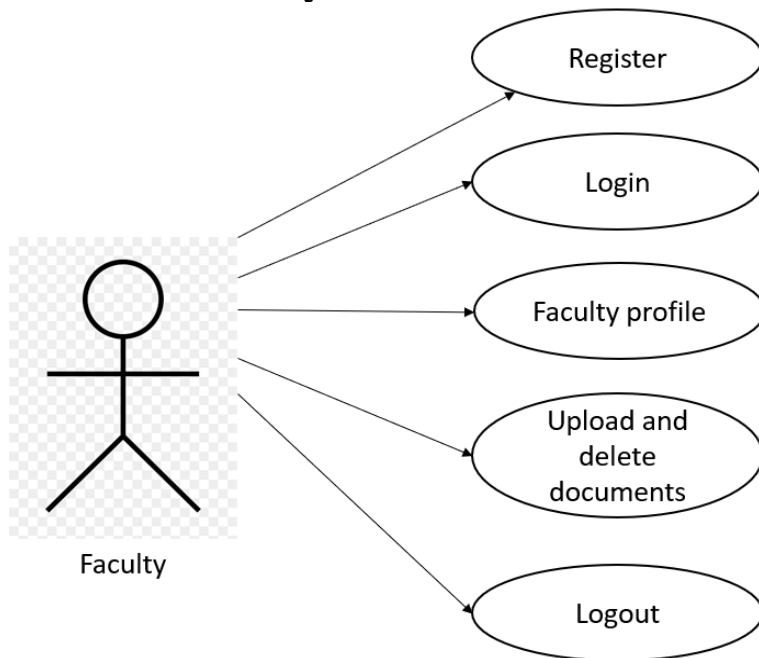
## Ch 4: Project design

### 4.1 Use case diagram

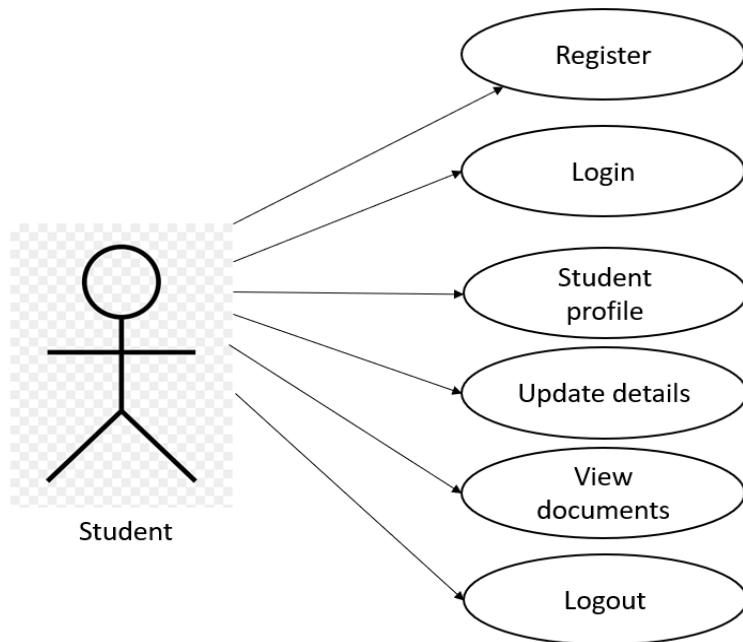
#### 1. Admin:



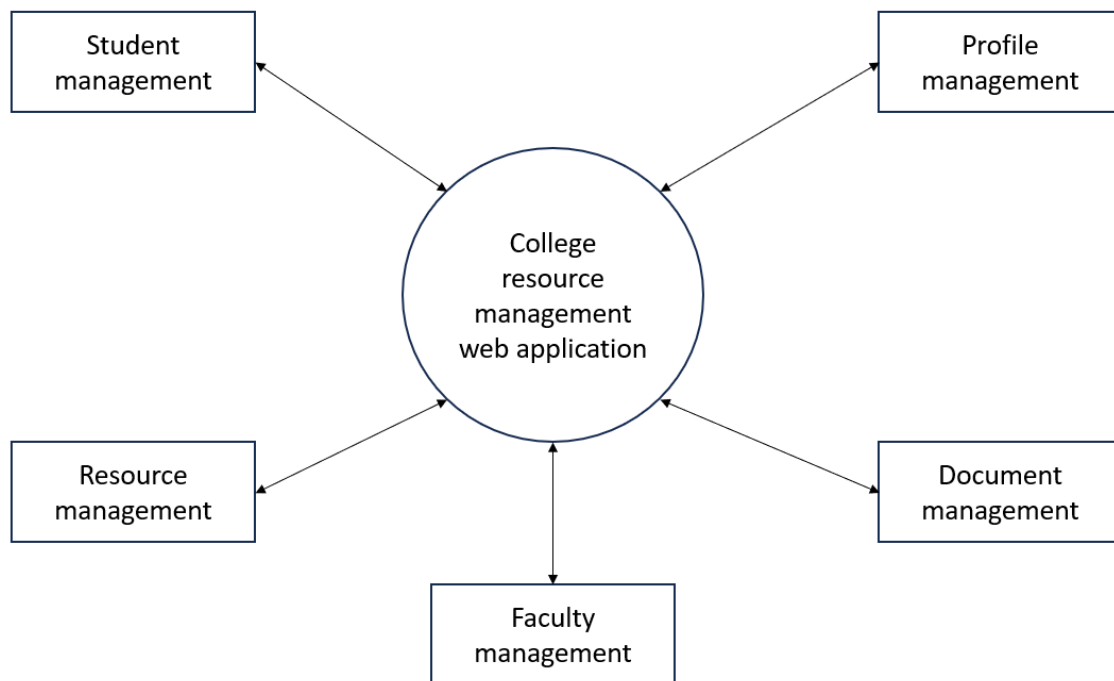
#### 2. Faculty:



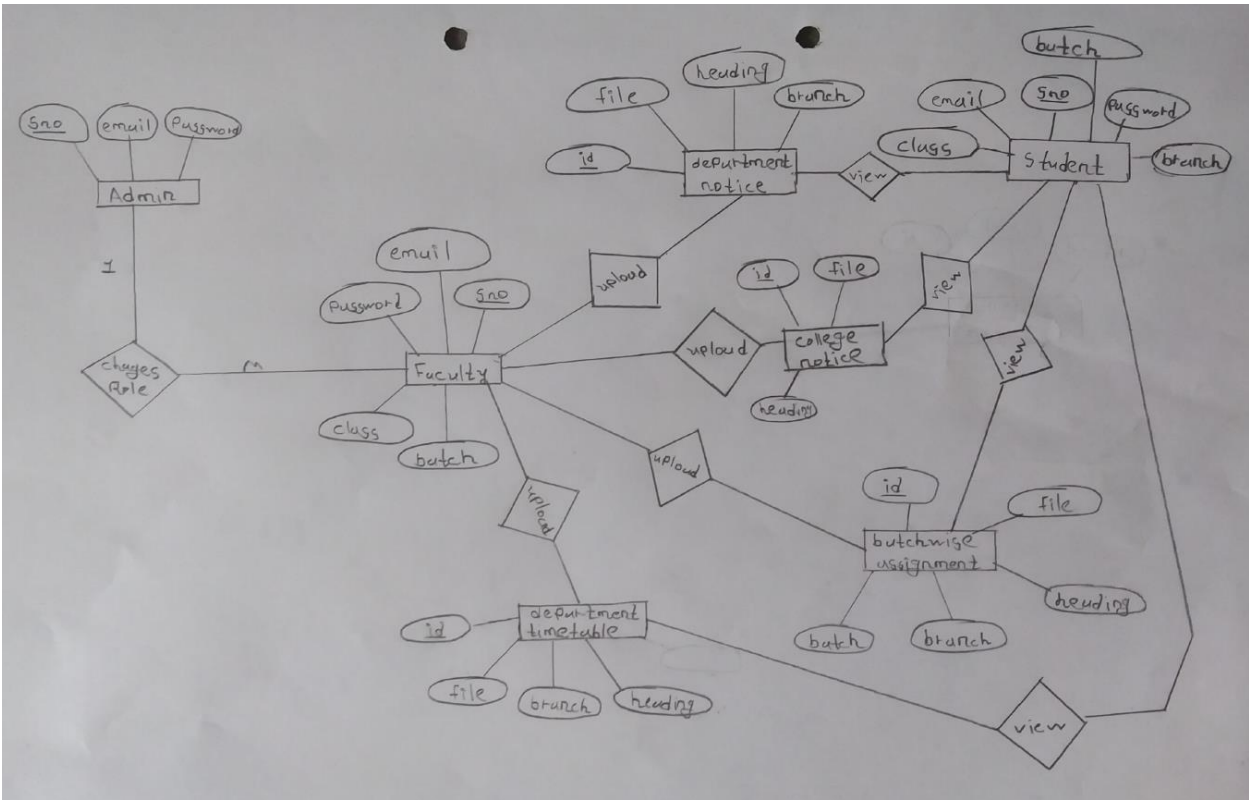
### 3. Student:



### 4.2 DFD(Data Flow Diagram)



### 4.3 ER(Entity-Relationship)



### 4.4 Data dictionary: admin\_credentials:

S NO.	COLUMN NAME	DATA TYPE	CONSTRAINTS	DESCRIPTION
1.	sno	INT	Primary Key , Auto increment	Contains Unique Id
2.	email	Varchar(100)	-	Contains email
3.	password	Varchar(100)	-	Contains password

**faculty\_detail:**

S NO.	COLUMN NAME	DATA TYPE	CONSTRAINTS	DESCRIPTION
1.	sno	INT	Primary Key, Auto increment	Contains Unique Id
2.	email	Varchar(100)	-	Contains email
3.	password	Varchar(100)	-	Contains password
4.	branch	Varchar(100)	-	Contains branch
5.	class	Varchar(100)	-	Contains class
6.	batch	Varchar(100)	-	Contains batch

**student\_detail:**

S NO.	COLUMN NAME	DATA TYPE	CONSTRAINTS	DESCRIPTION
1.	sno	INT	Primary Key, Auto increment	Contains Unique Id
2.	email	Varchar(100)	-	Contains email
3.	password	Varchar(100)	-	Contains password
4.	branch	Varchar(100)	-	Contains branch
5.	class	Varchar(100)	-	Contains class
6.	batch	Varchar(100)	-	Contains batch

**college\_notice:**

S NO.	COLUMN NAME	DATA TYPE	CONSTRAINTS	DESCRIPTION
1.	id	INT	Primary Key, Auto increment	Contains Unique Id
2.	file	Varchar(100)	-	Contains file name
3.	heading	Varchar(255)	-	Contains heading

**department\_notice:**

S NO.	COLUMN NAME	DATA TYPE	CONSTRAINTS	DESCRIPTION
1.	id	INT	Primary Key, Auto increment	Contains Unique Id
2.	file	Varchar(100)	-	Contains file name
3.	branch	Varchar(100)	-	Contains branch
4.	heading	Varchar(255)	-	Contains heading

**department\_timetable:**

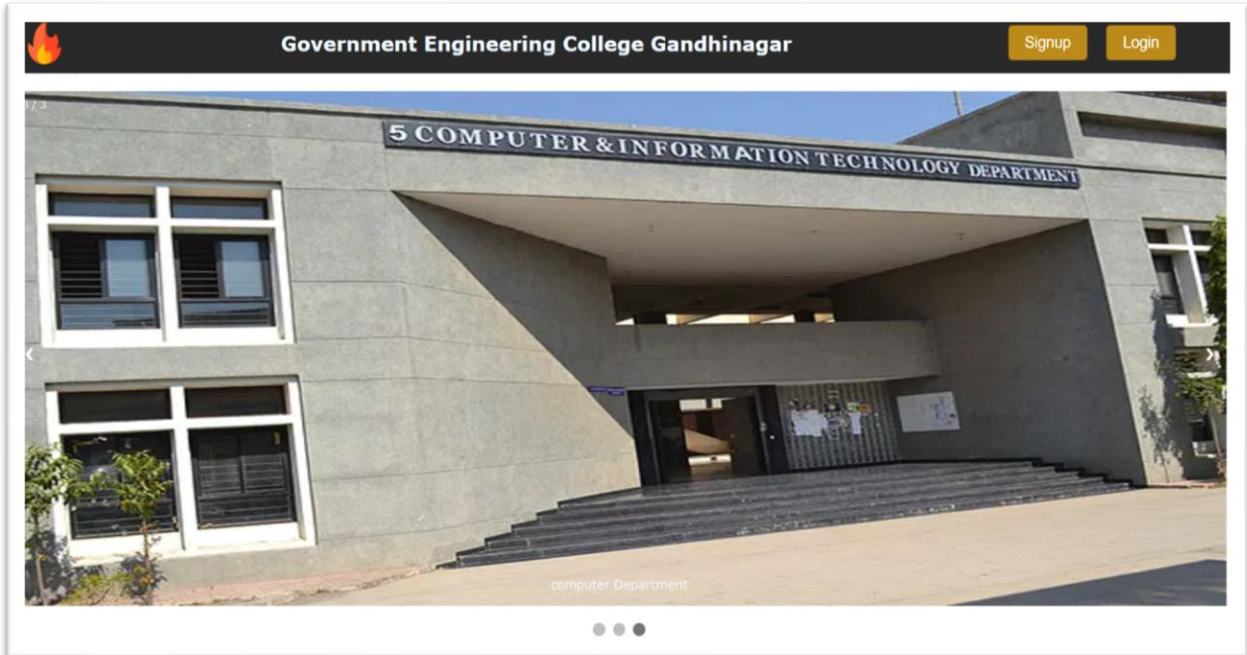
S NO.	COLUMN NAME	DATA TYPE	CONSTRAINTS	DESCRIPTION
1.	id	INT	Primary Key, Auto increment	Contains Unique Id
2.	file	Varchar(100)	-	Contains file name
3.	branch	Varchar(100)	-	Contains branch
4.	heading	Varchar(255)	-	Contains heading

**batchwise\_assignment:**

S NO.	COLUMN NAME	DATA TYPE	CONSTRAINTS	DESCRIPTION
1.	id	INT	Primary Key , Auto increment	Contains Unique Id
2.	file	Varchar(100)	-	Contains file name
3.	batch	Varchar(100)	-	Contains batch
4.	branch	Varchar(100)		Contains branch
5.	heading	Varchar(255)	-	Contains heading

## Ch 5:Prototype


### 5.1 Home page



### 5.2 Registration/Signup

The screenshot shows the registration/signup page of the Government Engineering College Gandhinagar website. At the top, there is a dark header with a flame icon on the left, the text "Government Engineering College Gandhinagar" in the center, and "Signup" and "Login" buttons on the right. Below the header, the page is divided into two main sections. On the left, there is a large image of a woman in a pink dress holding a book. On the right, there is a "Sign up as faculty" form. The form includes fields for "Email:", "Password:", "Branch:", "Class:", and "Batch:". The "Branch:" field has a dropdown menu with "CE" selected. The "Class:" field has a dropdown menu with "A" selected. The "Batch:" field has a dropdown menu with "A1" selected. At the bottom of the form is a "Register as faculty" button.





Government Engineering College Gandhinagar

SignupLogin

Sign up as student

Email:

210130107074@gecg28.ac.in

Password:

Branch:

CE


Class:

A


Batch:

A1

Register as student

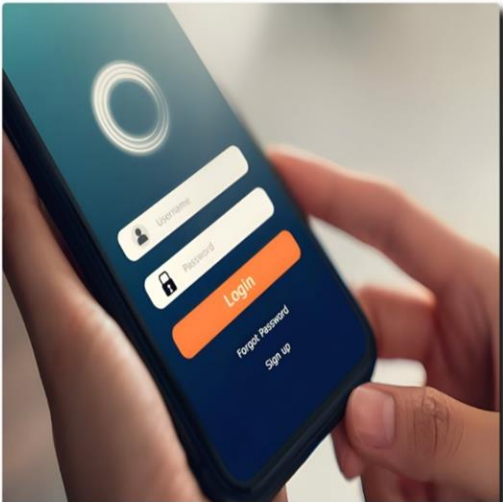


## 5.3 Login



Government Engineering College Gandhinagar

SignupLogin




login as faculty

Email:

Password:

Login



Government Engineering College Gandhinagar


SignupLogin

login as student


Email:

Password:

Login



## 5.4 Faculty side



Government Engineering College Gandhinagar

Welcome To Faculty Profile

Upload college notice

Upload department notice


Upload department timetable

Upload A1 assignment

Logout

Field	Value
Email	arp@gecg28.ac.in
Password	123
Branch	CE
Class	A
Batch	A1

IF YOU WANT TO CHANGE YOUR DETAILS KINDLY CONTACT ADMIN



Government Engineering College Gandhinagar

### College Notice

No file chosen

Uploaded documents	Delete
john added file	<input type="button" value="Delete"/>

## 5.5 Student side


Government Engineering College Gandhinagar

### Welcome To Student Profile

Field	Value
Email	2101301070741@geeg28.ac.in
Password	123
Branch	CE
Class	A
Batch	A1



### Update Your Student Details

Class:

A

Batch:

A1

Change



### College Notice

john added file

## **Ch 6 :Summary**

The college website project aims to enhance communication, information dissemination, and administrative efficiency within the college community through the development of a comprehensive online platform. This platform will serve as a centralized hub for faculty, students, and administrators to access essential resources, manage academic tasks, and engage in collaborative activities.

Key features of the project include user authentication and profile management, notice and announcement distribution, assignment submission and grading, timetable publication, discussion forums, event calendars, search functionality, feedback mechanisms, accessibility features, security measures, mobile compatibility, and analytics/reporting tools.

By providing seamless access to important information and streamlining administrative processes, the college website project seeks to improve communication, collaboration, and productivity among faculty, students, and administrators. Through iterative development and user feedback, the project aims to create a user-friendly and inclusive platform that meets the diverse needs of the college community while adhering to industry standards and best practices.

## References

- <https://www.lucidchart.com/>
- <https://www.chat.openai.com/>
- <https://youtu.be/6iERr1ADFz8?si=N9NDndA123ph4tfs/>