

# **STUDYMATERIALS**

## **SCHOOL MANAGEMENT SYSTEM**

**A PROJECT REPORT SUBMITTED IN PARTIAL FULFILMENT  
OF REQUIREMENT**

**FOR THE AWARD OF THE DEGREE**

**MASTER OF COMPUTER APPLICATIONS (MCA)**

**OF**

**MAHATMA GANDHI UNIVERSITY, KOTTAYAM**

**BY**

**BIMAL BABU**

**Reg No: 23PMC117**



**MARIAN COLLEGE  
KUTTIKKANAM**

**(AUTONOMOUS)**

**MAKING COMPLETE**

**Marian College Kuttikkanam Autonomous**

**Peermade, Kerala – 685 531**

**2023**

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23PMC117**

**Under the guidance of**

Ms. Reny Jose

assistant professor

PG Department of Computer Applications

Marian College Kuttikkanam Autonomous



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# **PG DEPARTMENT OF COMPUTER APPLICATIONS**

## **Marian College Kuttikkanam Autonomous**

**MAHATMA GANDHI UNIVERSITY, KOTTAYAM**

**KUTTIKKANAM – 685 531, KERALA.**

### **CERTIFICATE**

This is to certify that the project work entitled

**STUDYMATERIAL**

is a bonafide record of work done by

**BIMAL BABU**

**Reg. No. 23PMC117**

In partial fulfilment of the requirements for the award of Degree of

**MASTER OF COMPUTER APPLICATIONS [MCA]**

During the academic year 2022-2023

**Ms. Reny Jose**

Assistant professor

PG Department of Computer Applications

Marian College Kuttikkanam Autonomous

**Mr Win Mathew John**

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PG Department of Computer Applications

Marian College Kuttikkanam Autonomous

**External Examiner**

**External Examiner**

## ACKNOWLEDGEMENTS

"Gratitude is a sentiment that speaks more profoundly than words and yet remains quieter than silence. Throughout the course of this project, we have leaned on the guidance, assistance, and collaboration of numerous individuals and organizations, whose support has flowed abundantly by the grace of God. Without their unreserved backing, this project would have remained unfinished. If words serve as symbols of approval and tokens of acknowledgment, then allow the following words to herald our gratitude. We would like to extend our heartfelt thanks to our esteemed Principal, Professor **Dr. Ajimon George**, of Marian College Kuttikkanam (AUTONOMOUS), for their tireless efforts and impeccable administration in nurturing our education within this prestigious institution. Our gratitude also reaches out to Mr. **Win Mathew John**, the Head of the Department of Computer Application, whose unwavering support and advice proved instrumental in the successful completion of this project. We express our profound appreciation to our internal project guide, **Ms. Reny Jose**, for their invaluable guidance that led to the triumphant conclusion of this project. We also wish to convey our sincere thanks to all the faculty members of the MCA department for their timely assistance and unwavering support. In closing, we extend our deep-seated gratitude to our friends and family members, whose unwavering moral support and encouragement played an indispensable role in our successful project completion."

Bimal Babu

## **ABSTRACT OF STUDY MATERIALS**

The proposed school website is a comprehensive online platform designed to enhance the learning experience for students and streamline communication between students and teachers (admin). The platform facilitates easy access to study materials for students, who can download relevant resources for their courses. Additionally, students have the capability to submit doubts and queries directly to teachers/admin, creating a dynamic channel for academic support. Admin functionalities include the ability to upload study materials, ensuring a centralized repository of educational resources. The admin can efficiently manage these resources, including editing or removing outdated materials. Moreover, the platform features a robust doubt resolution system, allowing admins to respond to student queries promptly. This bidirectional communication ensures a collaborative and engaging online learning environment. The website is designed with a user-friendly interface, incorporating intuitive navigation for seamless access to study materials and the doubt submission process. The responsive design ensures accessibility across various devices, optimizing the user experience. With a visually appealing layout and a coherent color scheme, the website aims to create an engaging and professional virtual space for both students and administrators. By integrating these features, the school website serves as a digital hub that not only facilitates academic resource management but also fosters effective communication and support between students and teachers, enhancing the overall educational experience within the school community.

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# **1.INTRODUCTION**

## 1.1 Problem Statements

Students often struggle to find reliable study materials on their school's website. Lots of online resources are spread out and often can't be trusted. Plus, there isn't a single platform to find them all. Our project hopes to make a Study Material website. It will have trustworthy educational stuff and a place to buy academic tools. It'll even have a forum where students can get their questions answered by the teacher. This platform aims to solve the current problems. It will be simple to use and will bring everything into one place for students, teachers. The goal is to make education and support better in the school's learning community.

## 1.2 Proposed system

The proposed system for our School Website aims to establish a unified and user-friendly platform that caters to the diverse needs of students and teachers. It will encompass a comprehensive repository of educational materials, offering reliable study resources for various subjects and grade levels. Moreover, the system will incorporate a central hub for academic services, connecting users with a variety of educational tools and materials, all conveniently accessible in one place. To promote community engagement, a dedicated forum will allow students and teachers to share, seek guidance, and provide academic support.

## 1.3 Features of the proposed system

- It is very user friendly
- Student need not to go other websites for study
- Improve productivity
- Time consuming is less

## **2. FUNCTIONAL REQUIREMENTS**

### **1.User Registration and Authentication:**

- ❖ The website should allow users to register for an account using their student\_id and password.
- ❖ The website should authenticate users when they log in using their registered student\_id and password.

### **2. Student Dashboard:**

- ❖ The website should provide a student dashboard that allows students to access their personal information, academic records, and course materials.
- ❖ The dashboard should provide a personalized learning experience for each student.

### **3. Study Materials Management:**

- ❖ Teachers should be able to upload study materials, such as lecture notes, PowerPoint presentations, to the website.
- ❖ Study materials should be organized by course and subject.

### **4. Ask Doubt:**

- ❖ The website should provide a question-and-answer forum where students can ask doubts to teachers.
- ❖ Teachers should be able to answer questions from students.
- ❖ Questions and answers should be organized by course and subject.

### **5. Download Study Materials:**

- ❖ Students should be able to download study materials from the website.
- ❖ Study materials should be organized by course and subject.

## **3. NON FUNCTIONAL REQUIREMENTS**

### **1. Reliability:**

#### **a. Average Time to Failure (MTTF):**

The school website platform is expected to operate reliably for at least 30 days without encountering critical issues that would disrupt services.

#### **b. Backup Server:**

In the event of a server failure, a backup server must be activated and operational within one hour. This ensures minimal downtime and a seamless experience for users.

### **2. Availability:**

#### **a. 24/7 Availability:**

The school website platform should be accessible to users around the clock, 24 hours a day, 7 days a week.

#### **b. Scheduled Maintenance:**

The system can undergo planned maintenance for a maximum of one hour per week. During this time, updates and enhancements can be implemented. Communication with users about scheduled downtimes is essential to minimize inconvenience.

#### **c. Recovery Time:**

In case of unexpected system crashes or downtime, the school website platform should be restored and fully operational within one hour. This quick recovery time helps minimize disruptions to users.

### **3. Security:**

#### **a. User Data Privacy:**

Strict data segregation measures should be in place to ensure that users can only access their own personal information. This is crucial for maintaining user privacy and safeguarding sensitive data from unauthorized access.



4. Maintainability:

a. Server-Side Updates and Fixes:

Updates, maintenance, and defect fixes should be seamlessly implemented on the server-side without requiring manual patches or updates from users. This approach simplifies the maintenance process and ensures a smooth user experience.

## **4.UML DIAGRAMS**

## 4.1 USE CASE

### USER

#### 1. User Registration

**Use Case ID:** UCID\_01

**Use Case Name:** User Registration

**Date Created:**

**Description:** This use case allows a new user to register for an account on the SCHOOLWEBSITE platform.

**Primary Actor:** User

**Secondary Actor:** None

**Precondition:** User is not registered in the system.

**Postcondition:** User account is created, and the user is logged in.

**Main Flow:**

1. User navigates to the registration page.
2. User provide their personal information.
3. User chooses a username and password.
4. User submits the registration form.

#### 2. User Login

**Use Case ID:** UCID\_02

**Use Case Name:** User Login

**Date Created:**

**Description:** This use case allows a registered user to log into the SCHOOL WEBSITE platform using their credentials.

**Primary Actor:** User

**Secondary Actor:** None

**Precondition:** User is registered in the system.

**Postcondition:** User is logged into the platform.

**Main Flow:**

1. User navigates to the login page.
2. User enters their username and password.
3. The system validates the credentials.
4. If the credentials are valid, the user is logged into the platform.

### 3. MATERIAL Search

**Use Case ID:** UCID\_03

**Use Case Name:** Material Search

**Date Created:**

**Description:** This use case enables users to search for study materials on the platform.

**Primary Actor:** User

**Secondary Actor:** None

**Precondition:** User is logged into the system.

**Postcondition:** Search results are displayed.

**Main Flow:**

1. User enters search keywords or selects search filters.
2. User initiates the search.
3. The system retrieves and displays relevant materials listings.

## 4. Ask Doubt

**Use Case ID:** UCID\_04

**Use Case Name:** Ask Doubt

**Date Created:**

**Description:** This use case allows users can ask doubt to the teacher.

**Primary Actor:** User

**Secondary Actor:** None

**Precondition:** User is logged in, and ask doubt to teacher.

**Postcondition:**

**Main Flow:**

1. User clicks the "Ask doubt" button for option to ask doubt. .

## ADMIN

### 1. Admin Login

**Use Case ID:** UCID\_01

**Use Case Name:** Admin Login

**Date Created:**

**Description:** This use case allows an admin to log into the platform using their admin credentials.

**Primary Actor:** Admin

**Secondary Actor:** None

**Precondition:** Admin credentials are valid.

**Postcondition:** Admin is logged into the platform with admin privileges.

**Main Flow:**

1. Admin navigates to the admin login page.
2. Admin enters their admin username and password.
3. The system validates the admin's credentials.
4. If the credentials are valid, the admin is logged into the platform with admin privileges.

### 2. Manage Users

**Use Case ID:** UCID\_02

**Use Case Name:** Manage Users

**Date Created:**

**Description:** This use case allows an admin to manage user accounts, including viewing user information and managing account statuses.

**Primary Actor:** Admin

**Secondary Actor:** None

**Precondition:** Admin is logged into the platform with admin privileges.

**Postcondition:** Admin manages user accounts as needed.

**Main Flow:**

1. Admin accesses the user management section.
2. Admin views the list of registered users.
3. Admin selects a user to view their details.
4. Admin can perform actions like approving, suspending, or deactivating user accounts

### 3. Add Study Material

**Use Case ID:** Ucid\_03

**Use Case Name:** Add Products

**Date Created:** [Date]

**Description:** This use case enables an admin to add new study Material to platform.

**Primary Actor:** Admin

**Secondary Actor:** None

**Precondition:** Admin is logged into the platform with admin privileges.

**Postcondition:** New products are added to the platform.

**Main Flow:**

1. Admin accesses the study Material management section.
2. Admin initiates the process of adding a new Material .
3. Admin enters product details, including name, category, images.
4. Admin submits the material.

## 4. Manage material

**Use Case ID:** UCID\_04

**Use Case Name:** Manage Materials

**Date Created:** [Date]

**Description:** This use case allows an admin to manage existing material platform.

**Primary Actor:** Admin

**Secondary Actor:** None

**Precondition:** Admin is logged into the platform with admin privileges.

**Postcondition:** Admin manages existing products as needed.

**Main Flow:**

1. Admin views the list of existing materials.
2. Admin selects a materials to view and modify its details.
3. Admin can perform actions like editing, updating, or removing materials.

## 5. Replay to doubt

**Use Case ID:** UCID\_05

**Use Case Name:** reply to doubt

**Date Created:** [Date]

**Description:** This use case allows an admin (teacher)can reply to the doubt of students

**Primary Actor:** Admin

**Secondary Actor:** None

**Precondition:** Admin is logged into the platform with admin privileges.

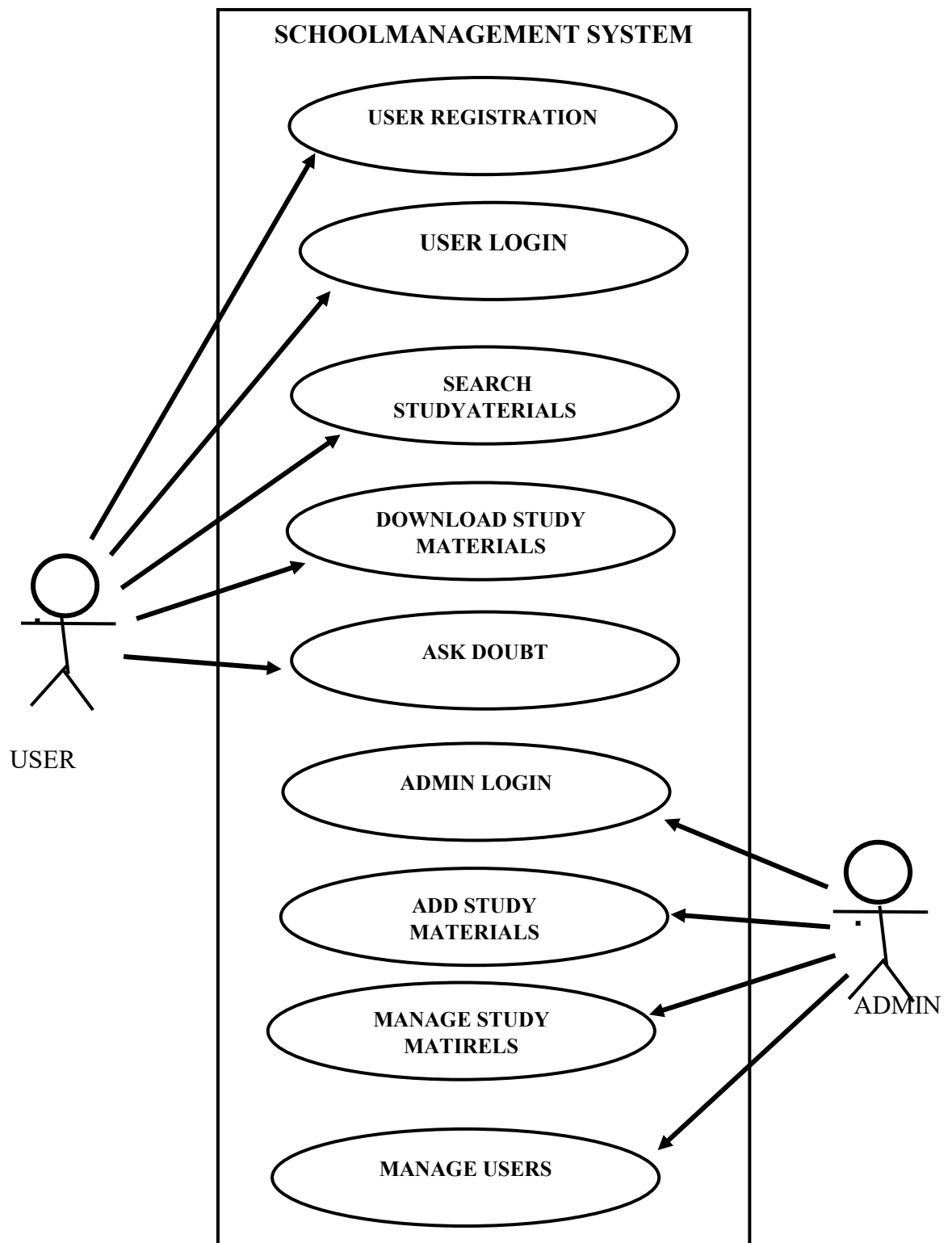
**Postcondition:** Admin manages the doubt and reply.

**Main Flow:**

1. Admin can reply to the doubt

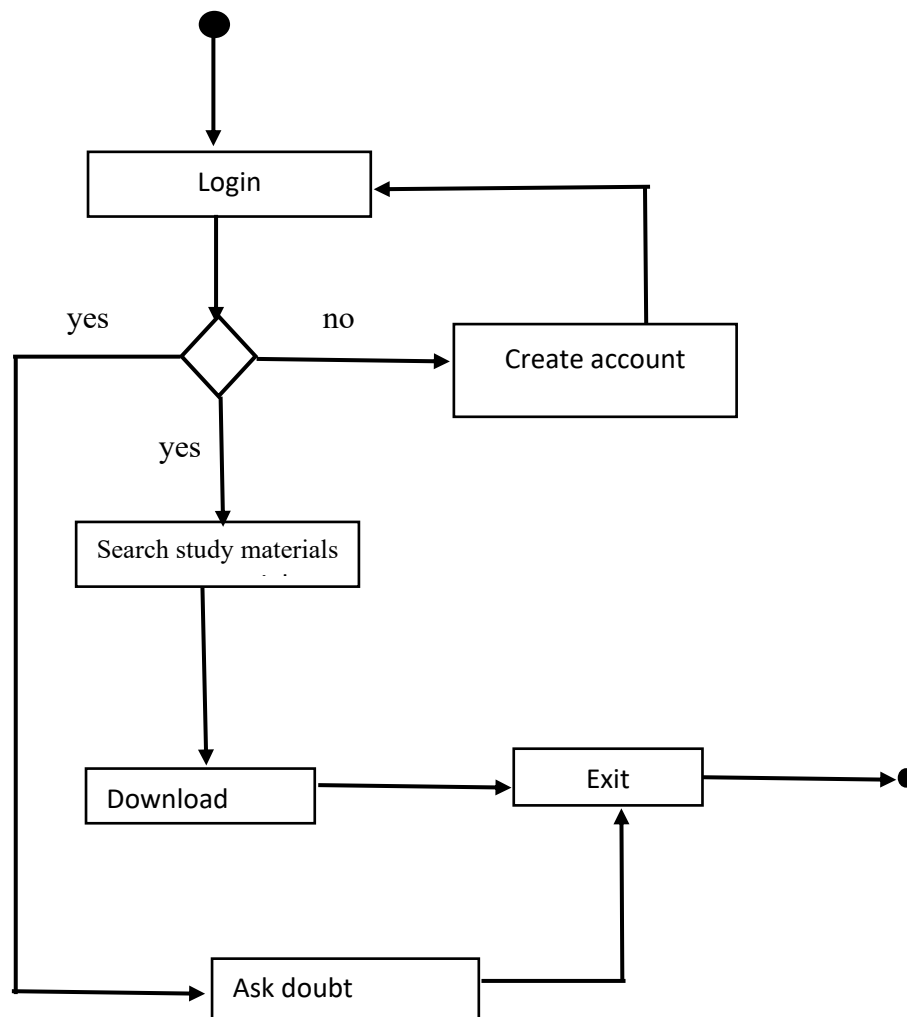


## 4.2 USE CASE DIAGRAM

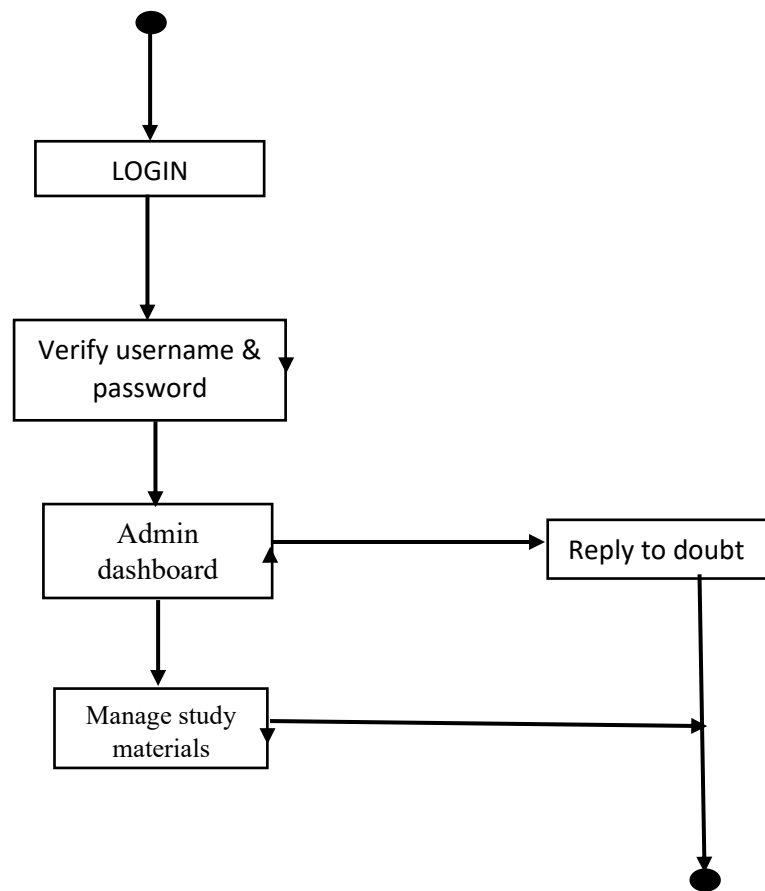


## 4.3 ACTIVITY DIAGRAM

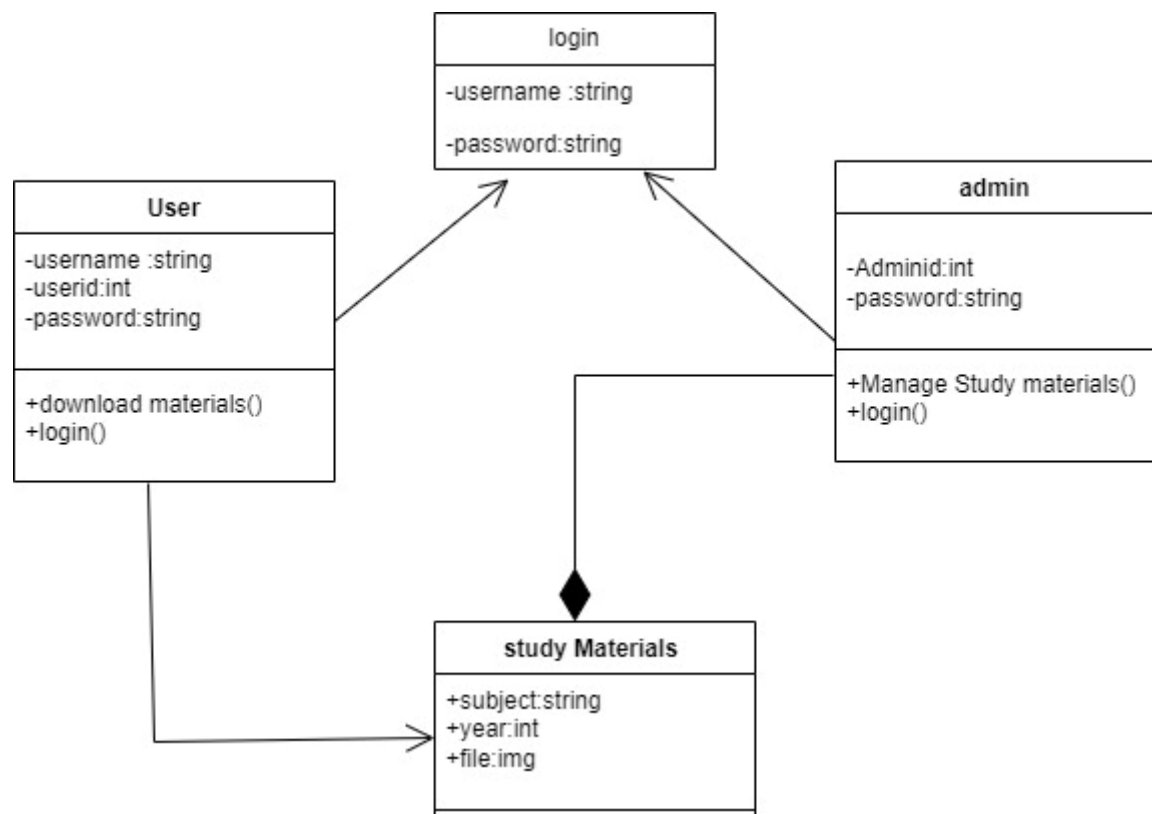
### 1. USER MODULE



## 2. ADMIN MODULE



#### 4.4. CLASS DIAGRAM



# **5.DATABASE DESIGN**

**STUDENT TABLE**

NO	FIELD NAME	SIZE	TYPE	INDEX	DESCRIPTION
1	STUDENT_ID	10	VARCHAR	PRIMARY	STUDENT ID
2	NAME	30	VARCHAR	NOTNULL	STUDENT NAME
3	AGE	3	DATE	NOTNULL	DATE OF BIRTH
4	DEPARMENT	30	VARCHAR	NOTNULL	DEPATMNET
5	PHONE_NO	10	NUMBER	NOTNULL	PHONE NUMBER
6	GENDER	10	VARCHAR	NOTNULL	GENDER
7	ADDRESS	50	VARCHAR	NOTNULL	ADDRES OF THE STUDENTS

**STUDTYMETEIALS TABLE**

NO	FIELD NAME	SIZE	TYPE	INDEX	DESCRIPTION
1	SUBJECT_ID	10	VARCHAR	PRIMARY	SUBJECT ID
2	YEAR	4	NUMBER	NOTNULL	YEAR OF SUBJECT
3	SUBJECT_NAME	20	VARCHAR	NOTNULL	NAME OF THE SUBJECT

**DOUBT TABLE**

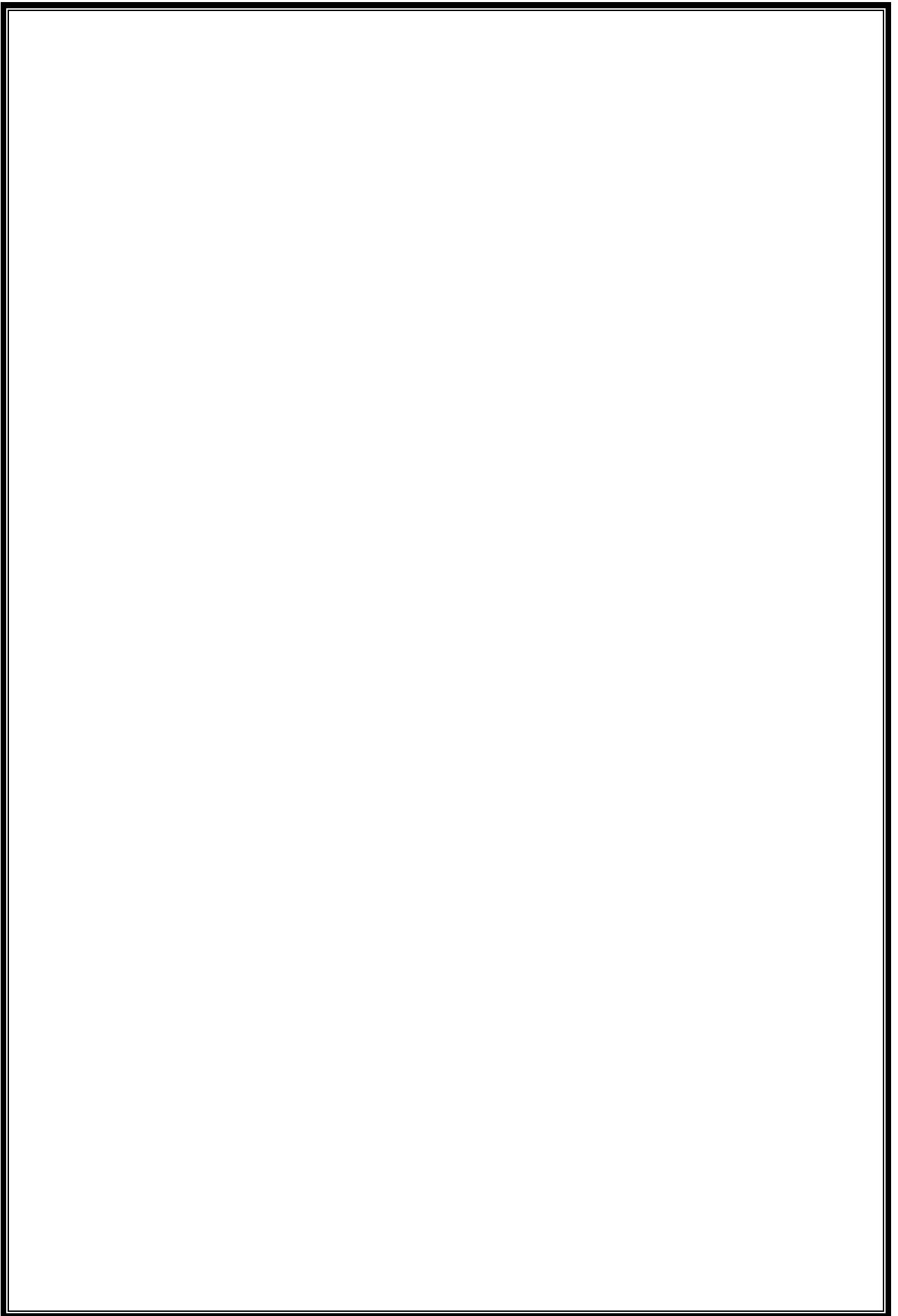
NO	FIELD NAME	SIZE	TYPE	INDEX	DESCRIPTION
1	DATE	4	DATE	NOTNULL	DATE OF DOUBT
2	DOUBT_ID	10	VARCHAR	PRIMARY	DOUBT TABLE ID
3	STUDENT_ID	10	VARCHAR	FOREINGKEY	STUDENT ID
4	DOUBT	50	VARCHAR	NOTNULL	WRITE THE DOUBT

**ADMIN TABLE**

NO	FIELD NAME	SIZE	TYPE	INDEX	DESCRIPTION
1	ADMIN_NAME	30	STRING	NOTNULL	NAME OF THE ADMIN
2	ADMIN_ID	4	VARCHAR	PRIMARY	ID OF THE ADMIN

## **6.TEST CASES**





# **7.INPUT DESIGN AND OUTPUT DESIGN**

## 7.1INPUT DESIGN

### Home Page:

- Header:
  - School Logo
  - Navigation links (Home, Courses, Study Materials, Ask Doubts, Contact Us)
- Hero Section:
  - Welcome message
  - Quick links to important sections (Download Study Materials, Ask Doubts)
- Featured Courses:
  - Thumbnails and brief descriptions of featured courses
  - "Download Study Materials" and "Ask Doubts" buttons for each course

### Study Materials Page:

- Filter Options:
  - Dropdowns for Course, Class/Grade, Subject
  - Search bar for specific topics
- Material Listings:
  - Thumbnail, title, description of each study material
  - "Download" button for each material
- Pagination:
  - Allow users to navigate through multiple pages of study materials

**Ask Doubts Page:**

- Form for Asking Doubts:
  - Fields for student name, email, class, subject, doubt description
  - "Submit" button to send the doubt to admin
- Doubt Listings:
  - Display a list of doubts with details (student name, class, subject, doubt)
  - Admin response (if any) displayed beneath each doubt

**Admin Panel:**

- Login Page:
  - Username and password fields for admin login
- Dashboard:
  - Quick overview of pending doubts, recent uploads, and other relevant stats
  - Navigation links (Manage Study Materials, Answer Doubts, Logout)
- Manage Study Materials:
  - Form to upload new study materials
  - List of existing study materials with options to edit or delete
- Answer Doubts:
  - List of pending doubts with details
  - Text area for admin to provide responses
  - "Submit" button to send responses to students

**Additional Considerations:**

- User Authentication:
  - Separate logins for students and admin
- Notifications:

- Notify students when their doubts are answered
- Notify admin of new doubts and study material uploads
- Mobile Responsiveness:
  - Ensure the website is accessible and user-friendly on various devices
- Security Measures:
  - Implement secure authentication for admin access
  - Secure file upload mechanisms
- Feedback Mechanism:
  - Allow students to provide feedback on study materials and responses to doubts

## 7.2OUTPUT DESIGN

### Home Page:

- Header:
  - School Logo
  - Navigation links (Home, Courses, Study Materials, Ask Doubts, Contact Us)
- Hero Section:
  - Welcome message
  - Quick links to important sections (Download Study Materials, Ask Doubts)
- Featured Courses:
  - Thumbnails and brief descriptions of featured courses
  - "Download Study Materials" and "Ask Doubts" buttons for each course

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- Pagination:
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- Form for Asking Doubts:
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  - "Submit" button to send the doubt to admin
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  - Display a list of doubts with details (student name, class, subject, doubt)
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Admin Panel:

### **Login Page:**

- Username and password fields for admin login
- Dashboard:
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  - Navigation links (Manage Study Materials, Answer Doubts, Logout)
- Manage Study Materials:
  - Form to upload new study materials
  - List of existing study materials with options to edit or delete
- Answer Doubts:
  - List of pending doubts with details
  - Text area for admin to provide responses
  - "Submit" button to send responses to students

Additional Considerations:

- Mobile Responsiveness:
  - Ensure the website is accessible and user-friendly on various devices

- Color Scheme:
  - Use a consistent and visually pleasing color scheme throughout the website
- Typography:
  - Choose clear and readable fonts for better user experience
- Feedback Mechanism:
  - Include a feedback form or rating system for study materials and responses



# **8.FUTURE ENHANCEMENT**

## 8.1 FUTURE ENHANCEMENT

Add a feature for students to submit and share their own materials, such as notes, study guides, and practice problems. This would allow students to learn from each other and create a collaborative learning community. Add a feature for students to form study groups and collaborate on assignments. This would help students to stay motivated and focused on their studies .Add a feature for teachers to post assignments and announcements directly to the website. This would make it easier for students to stay organized and informed about their coursework .Add a feature for teachers to create and manage online quizzes and exams. This would allow teachers to assess student learning more efficiently and provide students with immediate feedback. Add a feature for parents to view their child's grades and attendance records. This would help parents to stay informed about their child's academic progress. Add a feature for students to register for extracurricular activities and events. This would make it easier for students to get involved in their school community. Add a feature for alumni to connect with each other and with the school. This would help to build a strong alumni network and promote school spirit.

## **9.CONCLUSION**

## CONCLUSION

The new school website is a game-changing step towards building a vibrant and engaging learning environment. With its user-friendly interface, students can easily access study materials and communicate directly with teachers. This platform effectively caters to the changing demands of modern education. The feature that enables administrators to upload and manage study materials not only consolidates resources but also guarantees their timeliness. And with the ability to promptly address student inquiries, this platform fosters a collaborative and supportive atmosphere among the academic community. In essence, this digital platform goes beyond traditional limitations and opens up a world of possibilities for students' learning experience.

## **10.REFERENCES**

## **Websites**

[Django documentation](#) | [Django documentation](#) | [Django \(djangoproject.com\)](#)

**<https://bard.google.com/>**

[ChatGPT \(openai.com\)](#)

# **ANNEXURE**

