COLLEGE MANAGEMENT SYSTEM

Assignment Report
Group -6
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CSE1005
(Software Engineering)

Submitted by

G Dileep Chandu (*20BCI7313*)
G Keerthi Vardhani (*20BCE7620*)
M.Puneeth (*20BCI7312*)
Bhanuteja Kanaparthi (*20BCI7327*)
Venkatesh Rout (*20BCE7604)*
Rithy Raichel Soj (*20BCN7026*)
V S Sai Vamsi Veshesh (*20BCE7476*)
Kalluru Deekshita Reddy (*20BCI7189*)
Gamidi Vennala Roshini (*20BCE7376*)
Navdeep Kumar (*20BCE7370*)

Guided By

Prof. Ramesh Vatambeti

VIT-AP UNIVERSITY

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1. INTRODUCTION

This section is written to provide general information about our product "College Management System".

The main objective of our product is to maintain information about students, staff and other activities like attendance, student grades, payment of fees and salaries etc. The information is stored for future decision making for business process within the organization. This is a desktop application.

2. METHODOLOGY

This document describes the Software Requirements Specification (SRS) for a college management system that provides access and management of information of various modules in a collage such as Students, Guardians, Faculty, Finance, Examination, HR. Our project is based on a database that stores and maintains the information of various modules within the system. The advantage of a management system is that you avoid entries in paper copies and save the burden of paper copies of data.

The system is a desktop application and the GUI for this system is developed in Java. The database for this management system is created in SQL. There are three users for this system

- Admin (has full access to read and write all modules in the management system)
- Teacher (has access limited to writing and managing student grades, attendance, etc.).
- Student (has access for checking grades, attendance, uploading projects and assignments etc.).

This is version 1.0 of the software requirements specification.

The purpose of this document is to obtain and analyze the ideas that define the product and the requirements that the user needs. This document describes the details of our product, its parameters and goals. This SRS document describes the target, audience, product user interface, and software/hardware requirements of our product. This document also describes a problem we faced while designing and implementing the product, and also describes how we solved the problem and made our product more efficient. The management system saves manpower and time cost to perform the same task. The data in the database can be stored for a long time and can be used for various purposes in the future. There is little chance of data loss in management systems. This document also defines how customers and users see our product and how they understand the functionality of the product. This document will assist developers/designers in case of software product maintenance.

2.1 Key Focus and Abbreviations

The following terminology is used in writing this SRS for the College Management System:

- CMS: College Management System.
- Java: Java is a high-level, class-based, object-oriented programming language that is designed to have as few implementation dependencies as possible.
- GUI: Graphical User Interface.
- DBMS: Database Management System.
- SQL: Structured Query Language, used to create a database.
- SQL Server: SQL Server is a database management system in which database is created and database is managed like "update", "delete" and insert new record in the database.

2.2 Project requirements:

Language used : HTML , CSS , JAVASCRIPT , PHP
Database : MySQL
Web Browser : Firefox , Google Chrome

2.3 Problem statement

Manual College systems were paper-based and difficult to maintain, expensive, manpower-intensive and unable to process large records, the previous system was inefficient, inefficient and had redundancy and consistency issues."

3 THE PROPOSED SYSTEM

In this project, the system is designed based on the understanding of the problems in the existing system. In this management system, the problems that were in the previous system are solved by the transition to the computer system of modern times. A database is used to store data on the backend of the system.

The GUI is developed in Java. Some way to get data from the user and store it in the database. Reports on saved data are generated through Crystal Reports. The proposed system provides consistent and redundant data in storage and should be more efficient.

This system ensures data security by authenticating users, and user rights are defined in this project. In this system, admin is the main user of the system who has full rights to all the modules under the proposed system and the second user who is a college employee can also be a teacher in the college has limited access to the system such as student attendance and student grades managed by an employee. Various reports can be generated in this product, employee salary slips, student fee payment report, student details, attendance etc.

4. SOFTWARE REQUIREMENT ANALYSIS:

The main modules that are focused on this project:

- Student leadership
- Employee management
- Administration of student fees
- Paying the employee's wages
- User registration
- Internal grades of students
- Student attendance
- Reports of all modules
- Scope of the project

4.1 Administrator:

- Course: This contains the information about the number of the courses offered by the college and number of seats present in each.
- Department Management: Admin should be able to create the departments and delete if required.
- Section Creation Admin should be able to create the sections for each course and assign the seats for the same
- Subject Management :Admin should be able to create the subjects for particular department/course

- Subject Mapping :Subjects should be assigned to a particular faculty and section
- Staff Management : This contains the number of staff available in each department and admin should be able to add new staff or delete the same
- Syllabus: This provides the academic syllabus of the students from different branches.
- Announcements: Admin should able to post information regarding the events in the college, public holidays etc.,
- As colleges are growing day by day and also increasing the complexity of storing information about students and related to the higher education system, they are facing many related issues: student attendance and fees, staff salary details, etc.

4.2 Staff :

This module deals mainly with:

- Staff Profile: This provides personal details of the staff.
- View Student Details: This provides the staff to view the student details in his section namely
- Attendance: This provides the staff with his/her attendance details and leave balance details
- Timetable
- Announcements: Staff should be able to post their course material, teaching plan ,assignments and due dates for the submission etc,

4.3 Student:

This module gives information about,

- Student Profile: This provides personal details of the student.
- Marks: This provides the internal/external marks of a student.
- Attendance: This provides the student with his/her attendance details.
- Remarks: It contains the remarks written by the faculties about a student.
- Schedule: This has the various examinations schedules and exam timetables.

This project is based on the system of an educational institute where this application provides maximum services in a single software product used by the teacher and system administration. This project is based on a desktop application that shares information about various departments in the college.

In this project that includes Java and SQL. Java is used to design a GUI for an application through which a user can interact with software applications. SQL server is used to create a database in which various information will be stored. The main goal of this project is to provide users with the best GUI and provide many modules in a single product. Admin can view all the information stored in the database through the app and admin can also edit this information because the admin has full access to the system.

Teacher can view and edit information related to students, teachers have limited access. This project can be modified by any plugin at any time.

4.4 Project methodology:

We developed our product using the Software Development Lifecycle. We use the Agile model to develop our product. An agile model is an SDLC model that is a combination of two process models incremental and iterative. The CMS is developed based on the incremental process model of the agile model, which allows the user to divide a large project into different parts/modules.

In the incremental model, versions/parts of the system are delivered to the user at a regular time interval to get feedback from the user that they are cleared or want to make further changes to that module. If the user wants any type of change in the product, then it is possible through the incremental model.

After the specified time, each new part of the product is developed and delivered to the user and then at the end, when all the parts are developed, all the modules/parts are combined to develop the whole product, which will be delivered to the user in the form of a finished/complete application as per the requirements user.

Communication between the client and the developer is an important part of the agile model. The product will meet the user's requirement when there is maximum communication between the developer and the client, so the application will be more accurate. The finished product should accept changes in the future.

5 EER DIAGRAM:

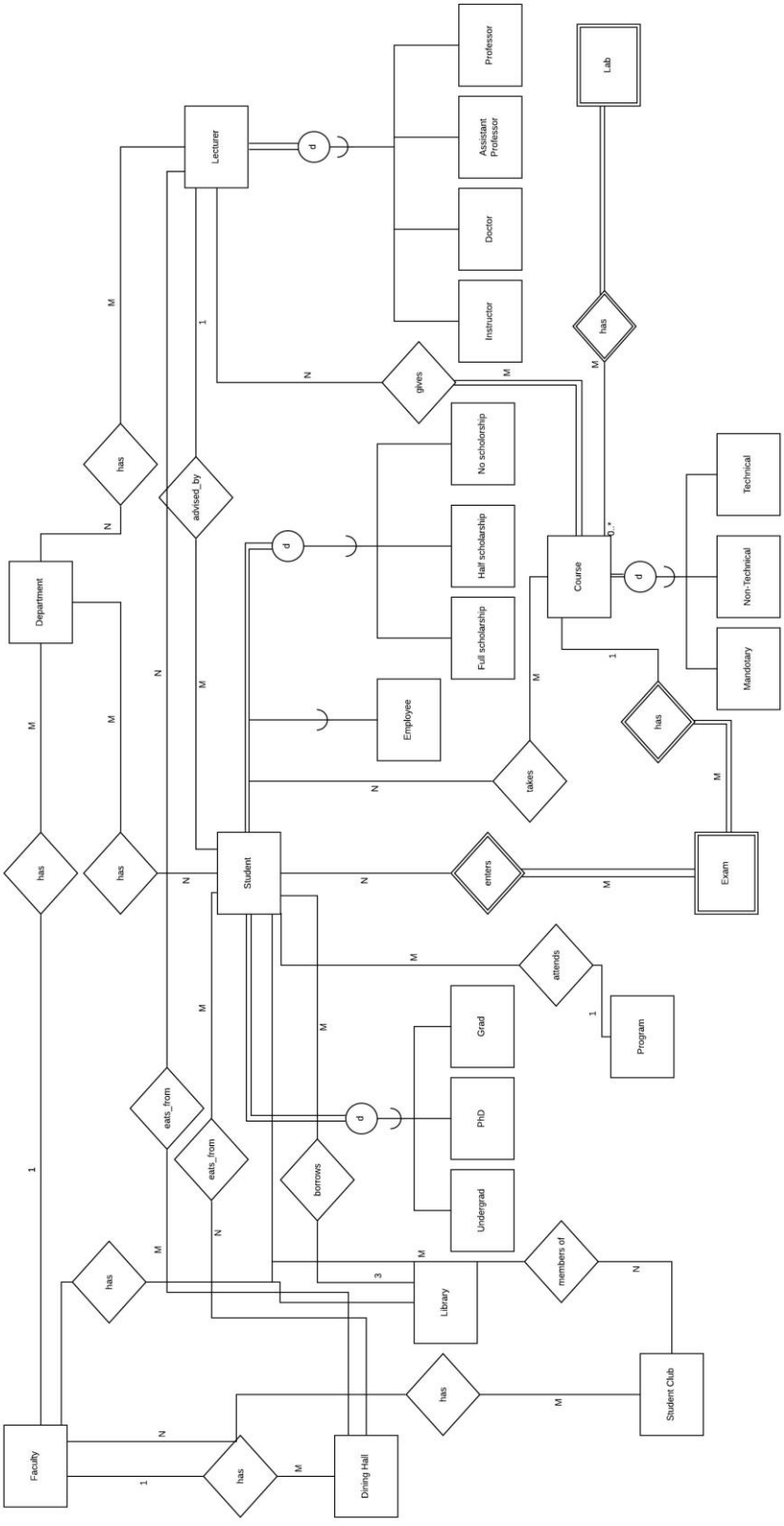

Fig 1

5 UML DIAGRAMS:

5.1 USE CASE DIAGRAM:

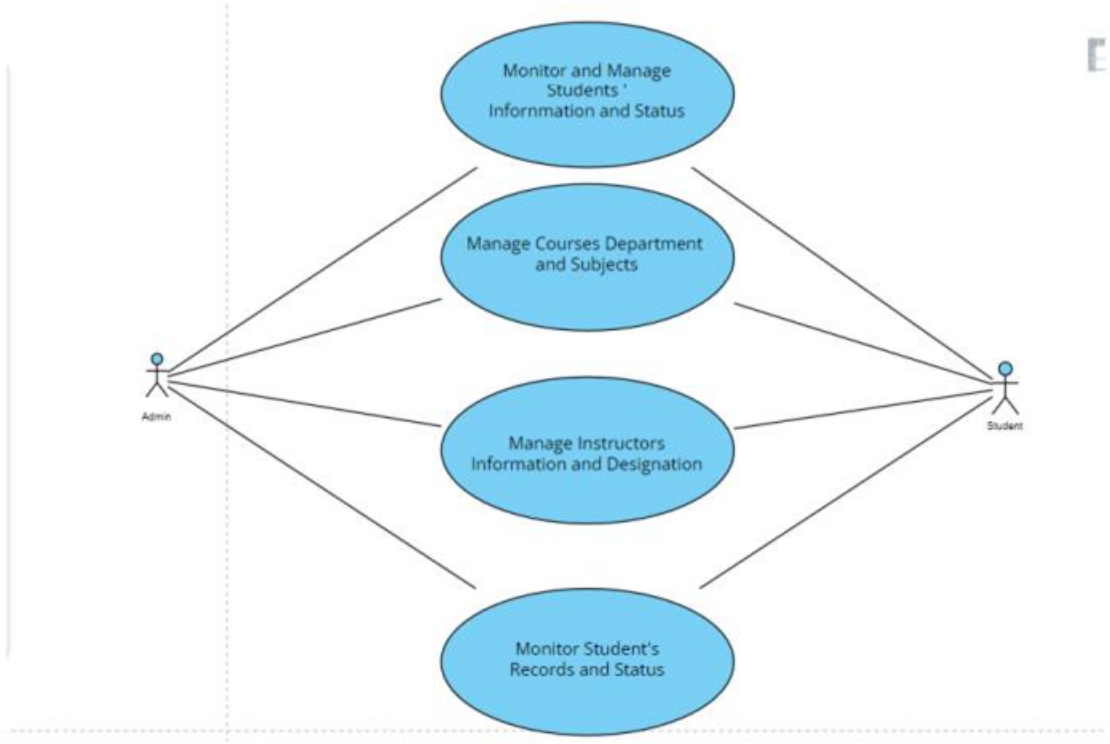

Fig 2

5.2 CLASS DIAGRAM:

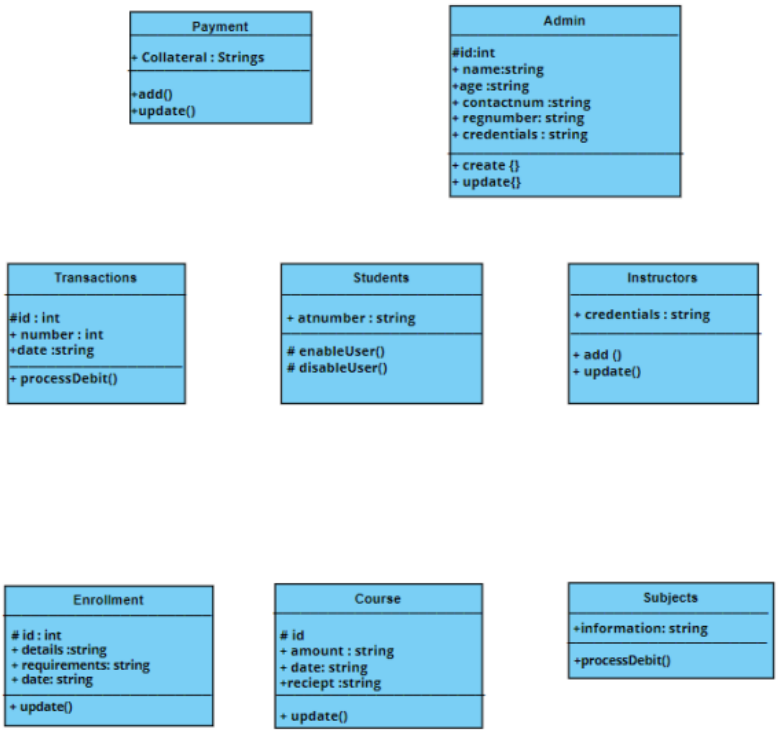

Fig 3

5.3 SEQUENCE DIAGRAM

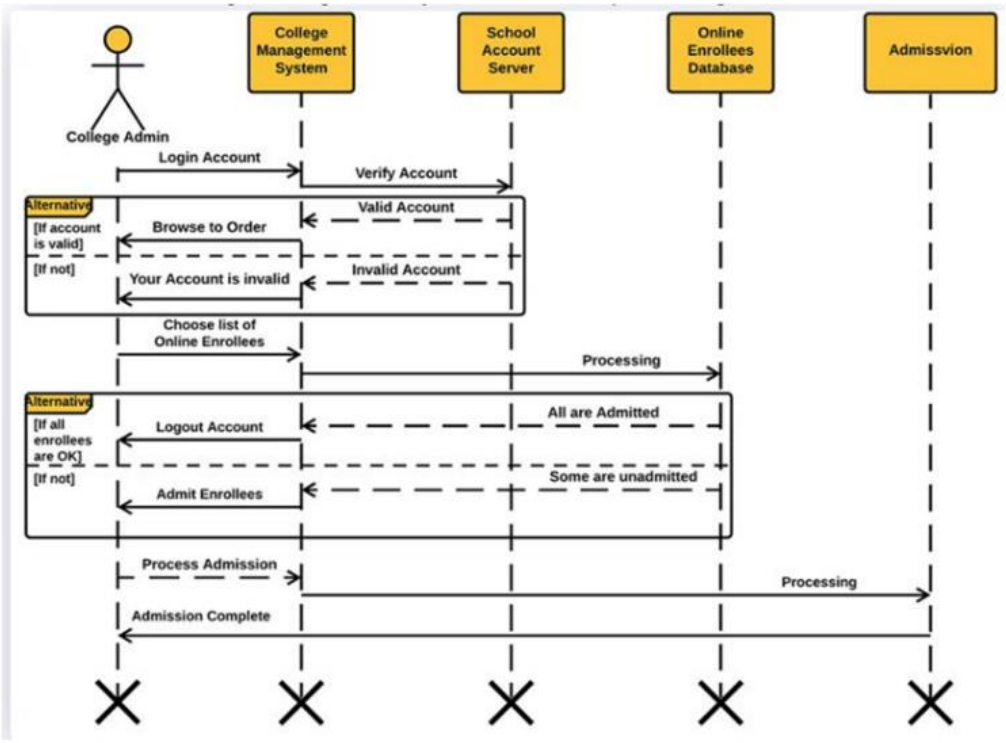

Fig 4

6 CONCLUSION

In conclusion, a student can see the menu of the dining hall easily, a student can search a book with its author and can see if it is available or not and he/she can see the location of the book, a student can participate clubs only clicking a button.

A student can see his/her past courses that he did not fail and can see the final grade and current taken courses and their exam notes.

Especially a student can see the courses that he or she can select for the semester and can see why he can't select because of the prerequisite.

In profile all the information about a student can be seen.

In lecturer's profile, the faculty can see or update the attendance, marks and grades of students without any hassle.

7 OUTPUT RESULTS

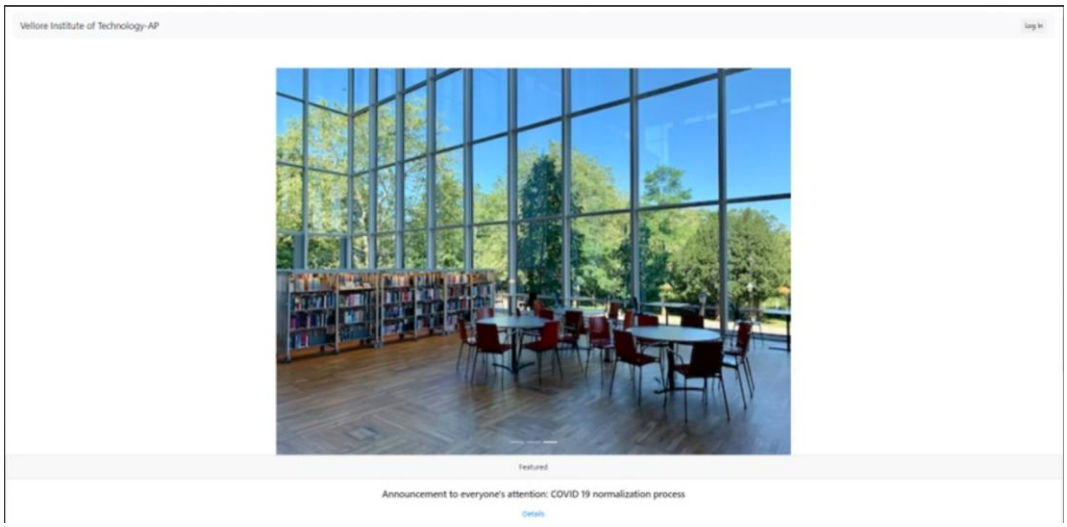

Fig 5

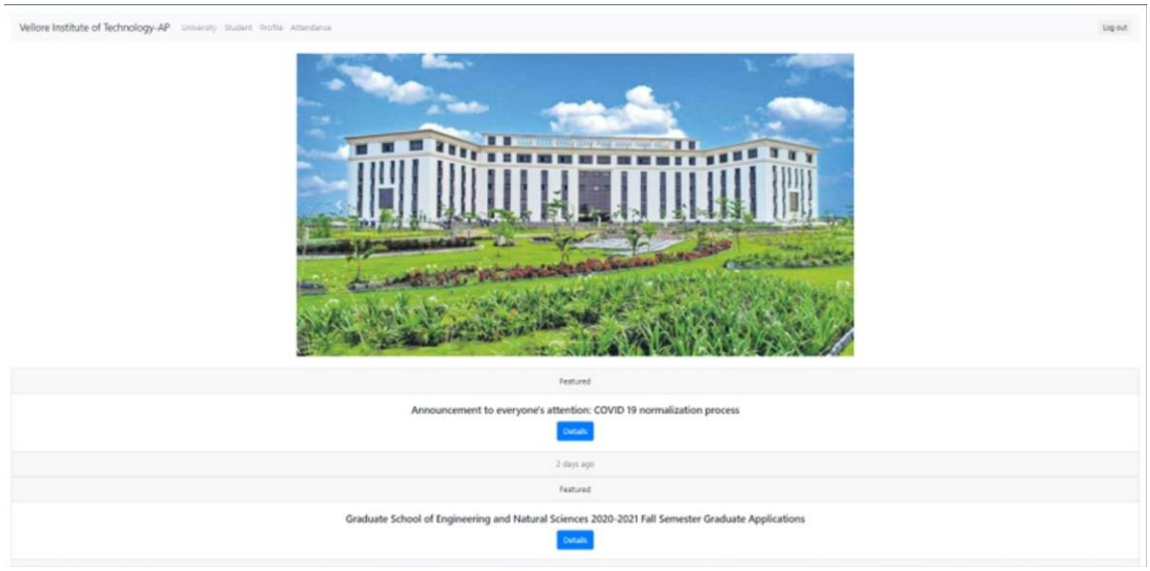

Fig 6

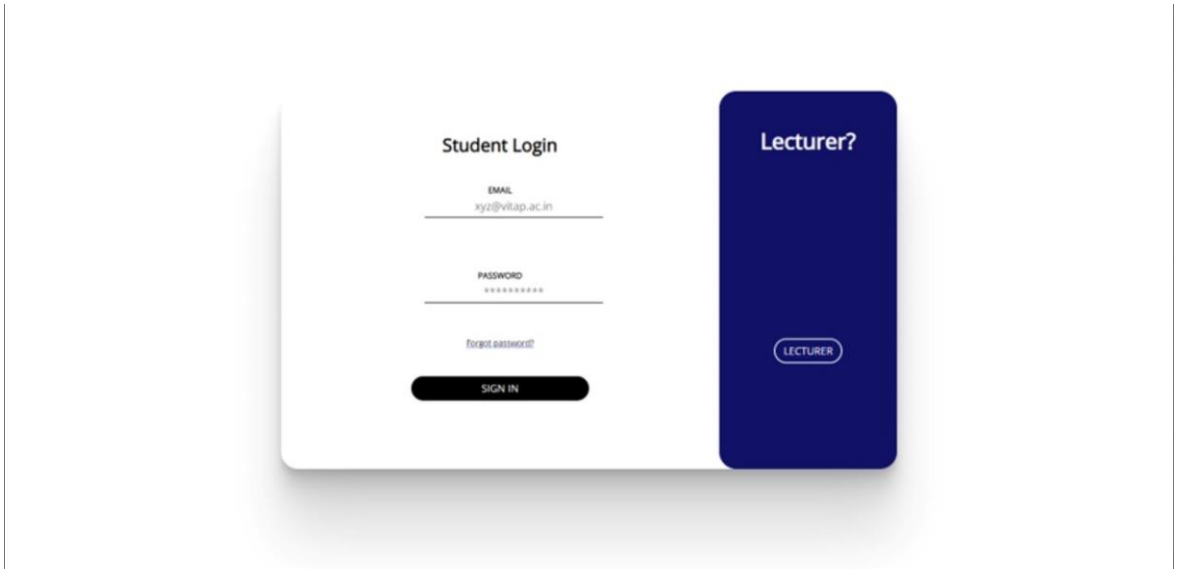

Fig 7

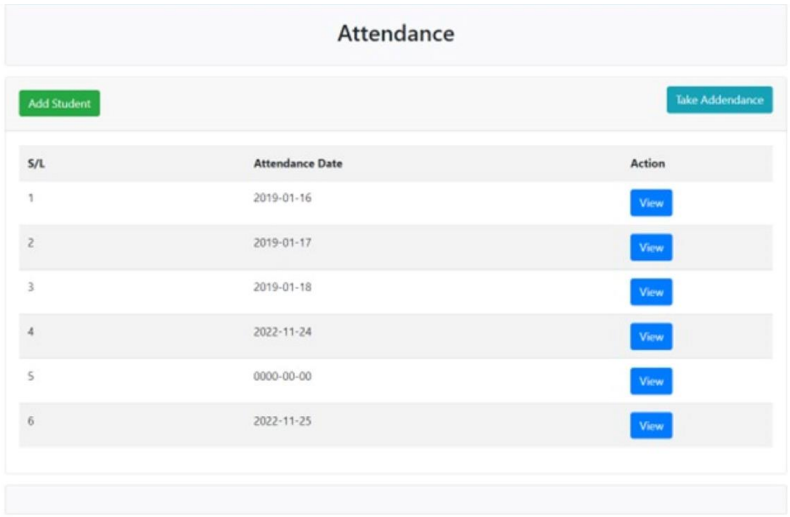
Attendance
Add Student
Take Addendance
S/L
Attendance Date
Action
1
2019-01-16
View
2
2019-01-17
View
3
2019-01-18
View
4
2022-11-24
View
5
0000-00-00
View
6
2022-11-25
View

Fig 8

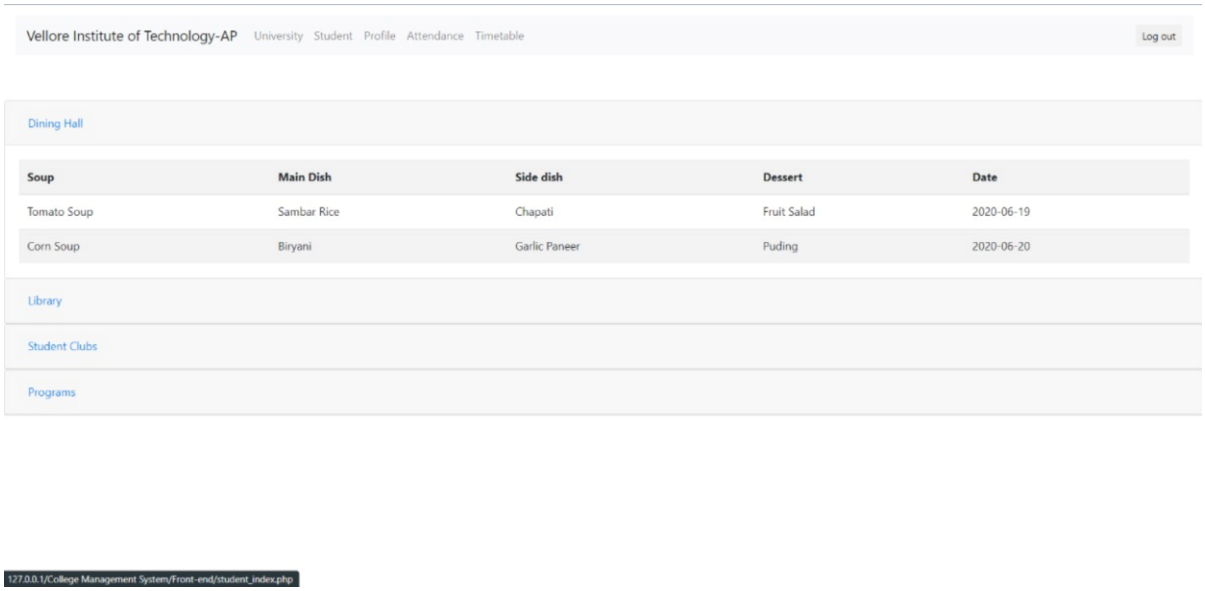
Vellore Institute of Technology-AP
University
Student
Profile
Attendance
Timetable
Log out
Dining Hall
Soup
Main Dish
Side dish
Dessert
Date
Tomato Soup
Sambar Rice
Chapati
Fruit Salad
2020-06-19
Corn Soup
Biryani
Garlic Paneer
Puding
2020-06-20
Library
Student Clubs
Programs
127.0.0.1/College Management System/Front-end/student_index.php

Fig 9

9 TESTCASES

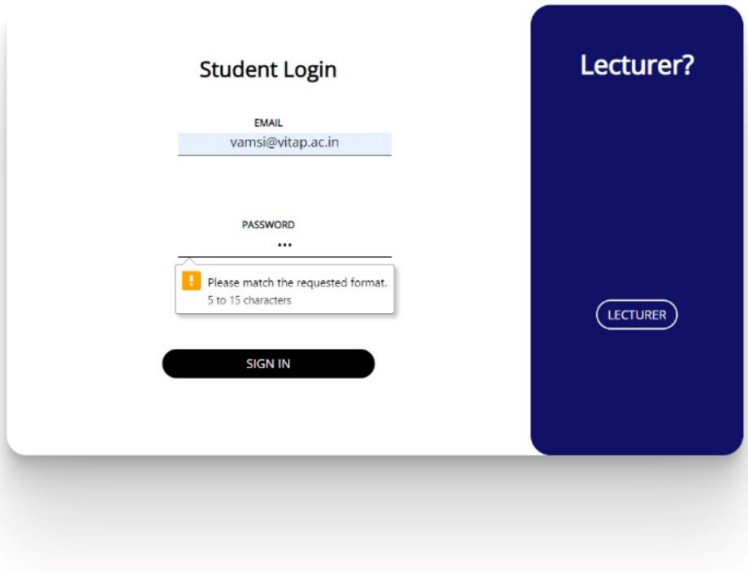

Fig 10

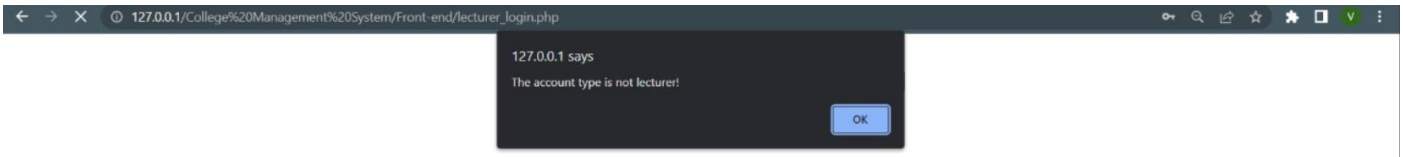

Fig 11

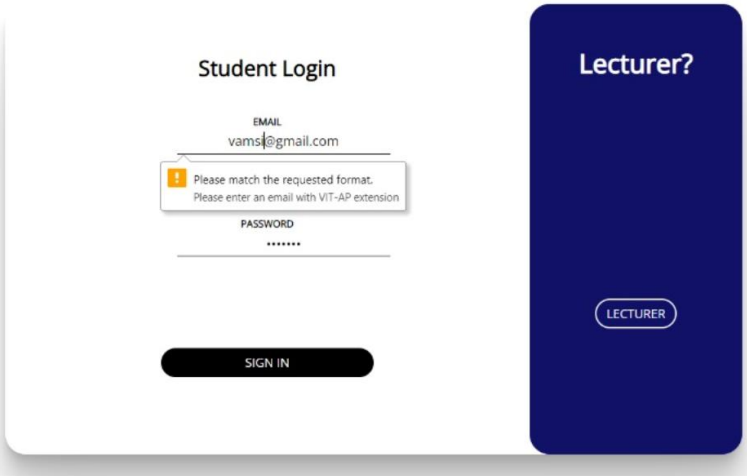
Student Login
EMAIL
vamsi@gmail.com
Please match the requested format.
Please enter an email with VIT-AP extension
PASSWORD
SIGN IN
Lecturer?
LECTURER

Fig 12