STUDENT ATTENDANCE MANAGEMENT SYSTEM

A thesis

Submitted to Department of Computer Science & Engineering in the partial fulfillment of the requirements for the award of the degree of

BACHELOR OF TECHNOLOGY

in

COMPUTER SCIENCE & ENGINEERING

By

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Certificate

This is to certify that this thesis entitled **"STUDENT ATTENDANCE MANAGEMENT SYSTEM"** that is being submitted by the partial fulfilment for the award of **Bachelor of Technology** in **Computer Science & Engineering** to the KAKATIYA UNIVERSITY is a record of work carried out during the academic year 2023-2024 under our guidance and supervision.

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DECLARATION

We declare that the work presented in this project report is original and carried out in the department of Computer Science & Engineering, KU College of Engineering & Technology, Warangal, Telangana and have not been submitted elsewhere for any graduate in part or in full.

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ABSTRACT

Student Attendance Management System (SAMS) deal with the maintenance of the student’s attendance details. It generates the attendance of the student on basis of presence of class. The purpose of a SAMS is to help administrators keep track of students and staff. Accurate attendance records are also vital to classroom evaluation.

Managing student attendance during lecture periods has become a difficult challenge. The ability to compute the attendance percentage becomes a major task as manual computation produces errors, and wastes a lot of time. For the stated reason, an efficient Web-based application for attendance management system is designed to track student's activity in the class. In this application, MYSQL and PYTHON are used as back-end design and HTML, CSS and JavaScript are used as front-end tools. It calculates automatically, the attendance percentage of students without any manual paper- based work. It also provides faculty diary. The system facilitates the end users with interactive design and automated processing of attendance management. This can help save time and money, reduce staff workload, and increase efficiency.

Keywords: attendance management system, faculty diary, Web-based application

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1. Introduction

Problem Statement

Generally, a successful educational institution or organization mainly depends on the factors like quality of teaching and teachers, placements provided by the institution to the students and infrastructure available in the institution.

Not only the above-mentioned factors, the attendance management also plays a major role for the success of the institution. Based on the attendance percentage the institutions can decide whether that particular student is eligible for the award of scholarships and the placement opportunities.

Normally the faculty of the institutions spend at least ten minutes of time for taking attendance. It is a manual way like maintaining of the attendance registers which consumes more time. During some inspections and team visits, they may be requesting for other than routine information, in this case the manual system does not support.

To avoid these problems, we are going to develop a digitalized attendance management system. The system is user-friendly, ensure data security and privacy compliance, and generate comprehensive reports for further consideration. The goal is to streamline attendance tracking, minimize errors, and improve overall efficiency in managing workforce attendance. The advantages of the developing system are

- It excludes use of paper work
- Generation of various reports
- No more duplicate data entry
- Less time consuming
- Improved accuracy

Purpose

The purpose of developing attendance management system is to computerized the tradition way of taking attendance. Another purpose for developing this software is to generate the required reports.

2. System Analysis

2.1 Existing System

Existing system is a manual entry for the students. Here the attendance will be carried out in the hand written registers. It will be a tedious job to maintain the record for the user. The human effort is more here. The retrieval of the information is not as easy as the records are maintained in the hand written registers.

This application requires correct feed on input into the respective field. Suppose the wrong inputs are entered, the application resist to work. So, the user finds it difficult to use.

2.2 Disadvantages of Existing System

- Time-consuming
- Prone to Errors
- Security Concerns
- Limited Data Analysis

2.3 Proposed System

To overcome the drawbacks of the existing system, the proposed system has been evolved. This project aims to reduce the paper work and saving time to generate accurate results from the student's attendance. The system provides with the best user interface.

This system comprises the following:

- The system allows admin to manage teachers' and students' details and he can view the attendance of students.
- It will provide a particular id to a particular teacher and also provide login credentials.
- All the details of teachers and students are collected from KUCET administration.
- It takes the information of students related to their respective year and branch.
- It also takes the information related to a particular class like, a class contains 60 plus students in which some students are regular and other are lateral entry students.
- Each class at least contains five subjects and two labs. In a week a subject may contain at least four theory hours and three practical hours per each practical course.
- The faculty teaching diary is automatically maintained by the system. The faculty teaching diary will contain the information like, subject, topic, date, duration and number of students present in that particular class.
- The reports consisting of other than routine information can also be generated.
- The students can also login into the system using their academic information and check their attendance.

Advantages of Proposed System

It is trouble-free to use.

It is a relatively fast approach to enter attendance

Auto generation of various reports

No more duplicate data entry

Less time consuming

Improved accuracy

It excludes use of paper work

3. Requirement Specifications

3.1 Hardware Requirements:

RAM: 2 GB

Hard Disk: 500 GB

Processor: Any updated processor

3.2 Software Requirements:

Operating System: Windows 10

Front-End Language: HTML, CSS, JAVA SCRIPT.

Back-End: My SQL

Technology: Python

IDE: VS Code

4. Module Design

4.1 Description of Modules

Student attendance management system basically has 2 main modules

I. ADMIN MODULE

An attendance module admin has the ability to view and edit attendance entries, assign and monitor shifts, and view user reports for a selection of users. The core responsibility lies in attendance management, allowing administrators to view attendance, manage faculty, and generate detailed reports.

STUDENT DETAILS:

This module deals with allocation of student id and personal details of new batch

FACULTY DETAILS:

It helps to allot the subject id to particular staffs. It provides facility to have a username and password to the staffs.

II. FACULTY MODULE

The faculty module in a Student Attendance Management System (SAMS) is designed to empower teachers with tools and functionalities that facilitate efficient attendance tracking, communication with students, and collaboration with administrators. The module ensures restricted access to attendance information based on teacher's username and password.

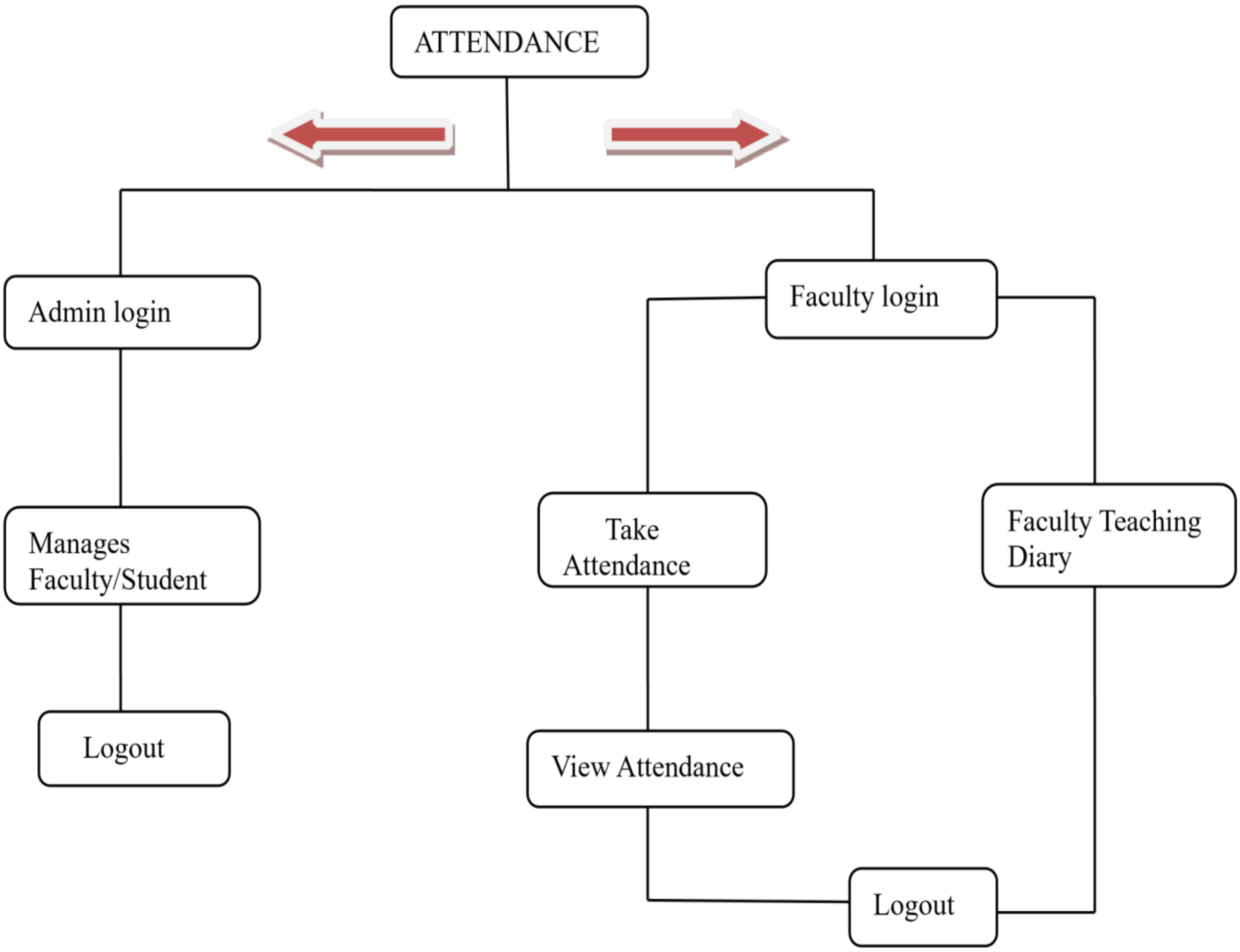
ATTENDANCE DETAILS:

It assists the staff to mark attendance to the students for their subject. This will authenticate the staff before making the entry.

5. Design

5.1 Flowchart Diagram

A flowchart diagram is a visual representation that illustrates the sequence of steps, processes, or actions within a system or a specific workflow. Flowcharts use different shapes, symbols, and arrows to depict the logical flow of information, data, or control between various elements in a process. They provide a clear and structured way to represent the sequential order of activities, decision points, and interactions within a system.



As shown in the above flow chart, the admin can login into the attendance management system and can manage the faculty and student information and will logout after successfully performing his operations.

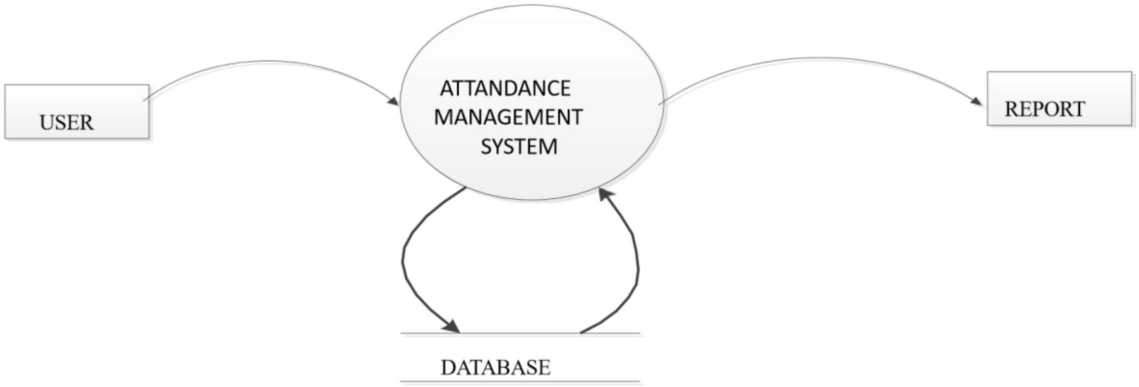
The faculty can login and take and view attendance, they can also view their faculty teaching diary and will logout.

5.2 Data Flow Diagram

A Data Flow Diagram (DFD) is a visual representation that illustrates the flow of data within a system or process. It provides a graphical depiction of how data moves through various processes, data stores, and external entities. DFDs are commonly used in system analysis and design to model and document the interactions between different components of a system and the flow of information between them.

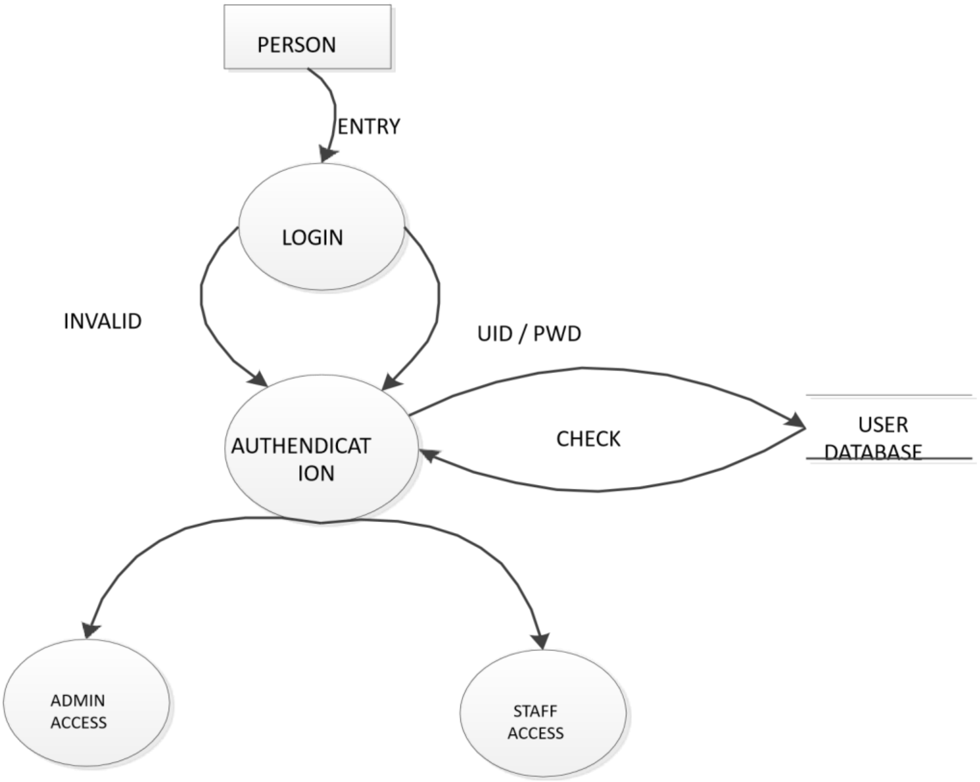
DFD Level 0:

The Context Diagram represents the highest and most abstract level of a DFD. It provides a broad overview of the entire system, illustrating its interactions with external entities. The system itself is represented as a single process, surrounded by external entities, which can be users, other systems, or data sources. This level is useful for showing the system's boundaries and the external entities with which it interacts.



DFD Level 1:

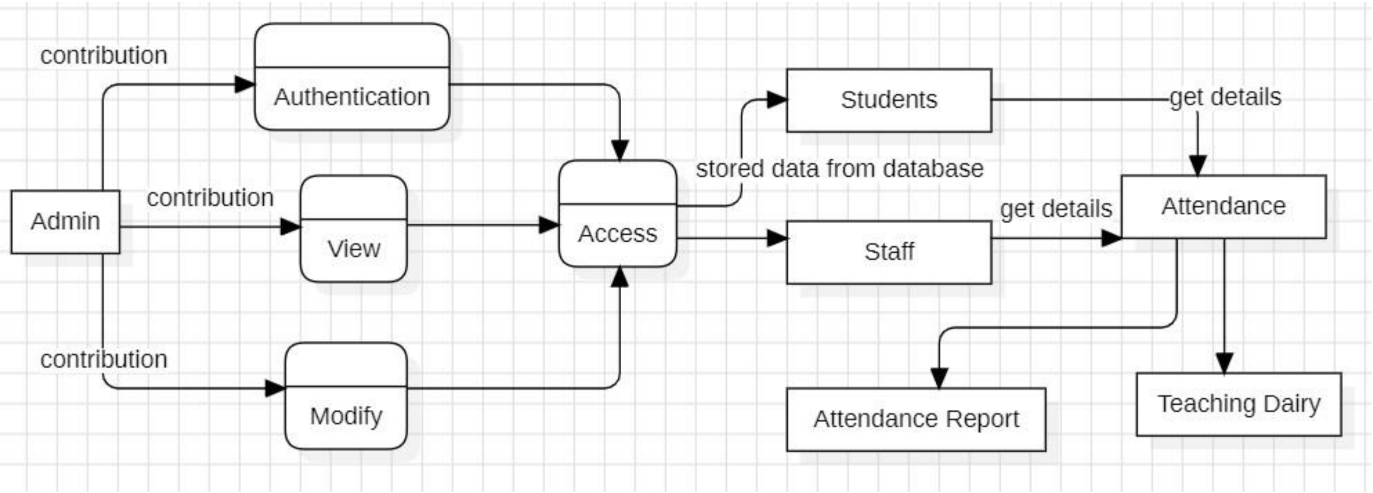
At Level 1, the context diagram is expanded to show the major processes within the system and their interactions. Each major process is represented as a separate process bubble, and data flows between these processes are depicted. The external entities and data stores from the context diagram may be further decomposed to show more detail. Level 1 provides a higher degree of detail compared to the context diagram but still maintains a relatively high level of abstraction.



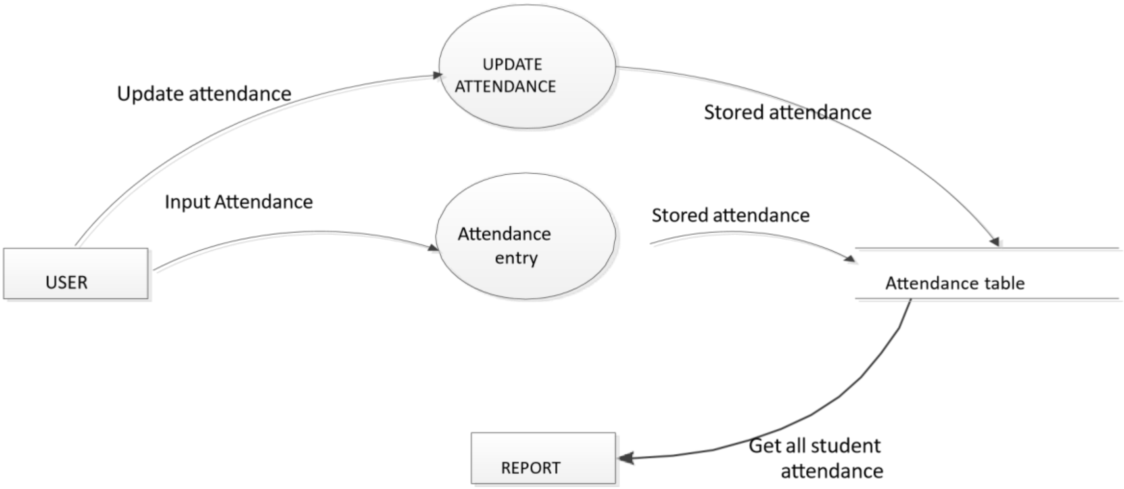
DFD Level 2:

Level 2 further decomposes the processes identified in Level 1 into sub-processes, providing more detailed information about the internal workings of each major process. The data flows are elaborated, and more specific interactions and transformations within each process are illustrated. This level provides a more granular view of the system compared to Level 1.

Admin:



Staff:

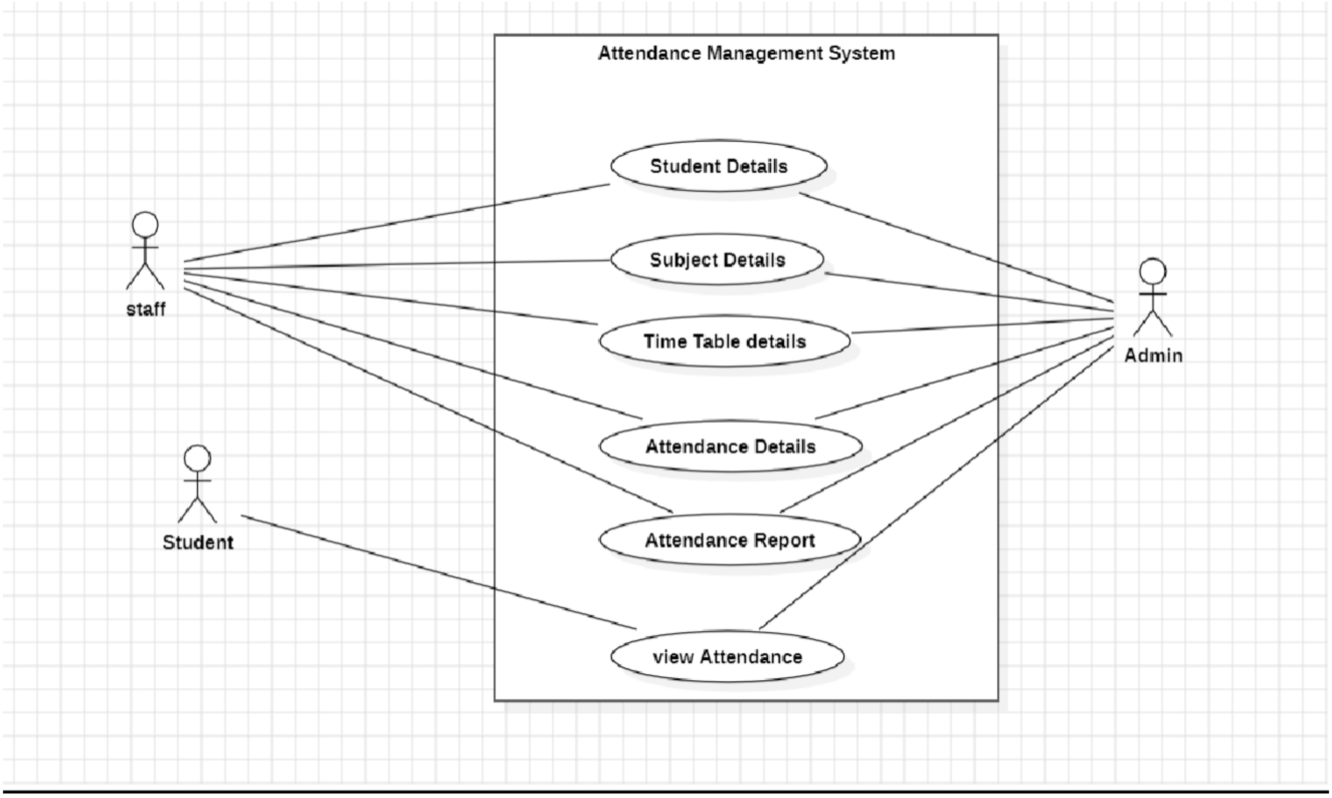


5.3 UML Diagrams

Unified Modelling Language (UML) diagrams are a set of standardized graphical notations used in software engineering to visually represent and document the design and structure of a system. UML provides a common language and notation for software developers, analysts, and stakeholders to communicate and understand the various aspects of a system. The UML diagrams capture different perspectives of a software system, including its structure, behavior, and interactions.

Use Case Diagram:

A Use Case Diagram is a visual representation in the Unified Modelling Language (UML) that illustrates the interactions between users (actors) and a system, showcasing the various ways the system can be used to achieve specific goals or tasks. It provides a high-level view of the system's functionality from the perspective of its users and helps to identify and define the different use cases or scenarios that the system must support.

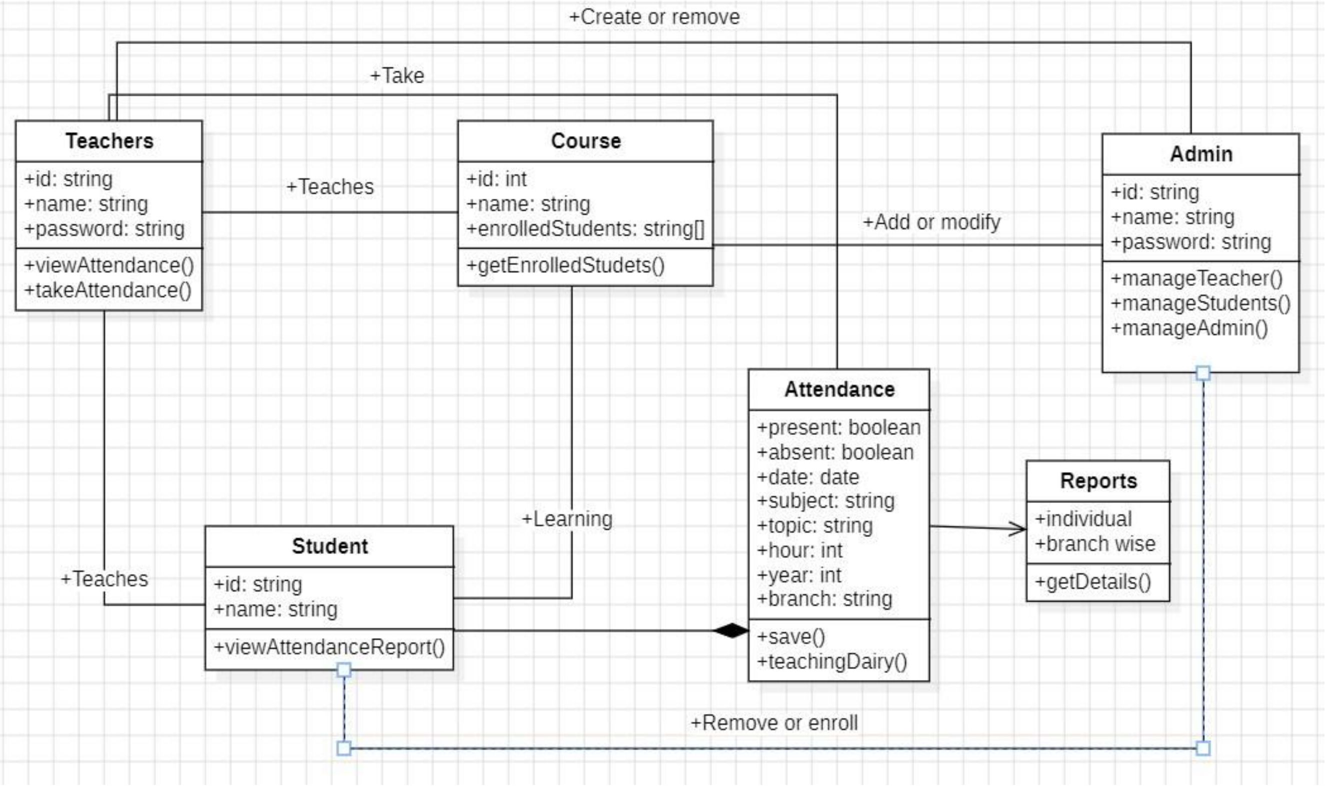


Use case diagram for the Attendance Management System can Consists of

Actors: Staff, Student, Admin
As per the above Use case diagram the staff and Admin can able to do the actions like viewing of the student and subject details and time table details also, staff can able the take the student attendance and can view the attendance report also and admin can able to manage the student and staff. Finally, the student can able to view the attendance only.

Class Diagram:

A Class Diagram is a type of Unified Modelling Language (UML) diagram that provides a visual representation of the structure and relationships within a system. It depicts the classes, their attributes, methods, and the associations between classes, offering a static view of the system's architecture. Class diagrams are fundamental in object-oriented modelling and design, helping to illustrate the conceptual structure of the software system.



In the above class diagram of attendance management system, consists the following classes which are, Teachers, Course, Admin, Student and Attendance. The teachers class contains the attributes like, id, name and password and operations are viewing attendance, take attendance and modify course.

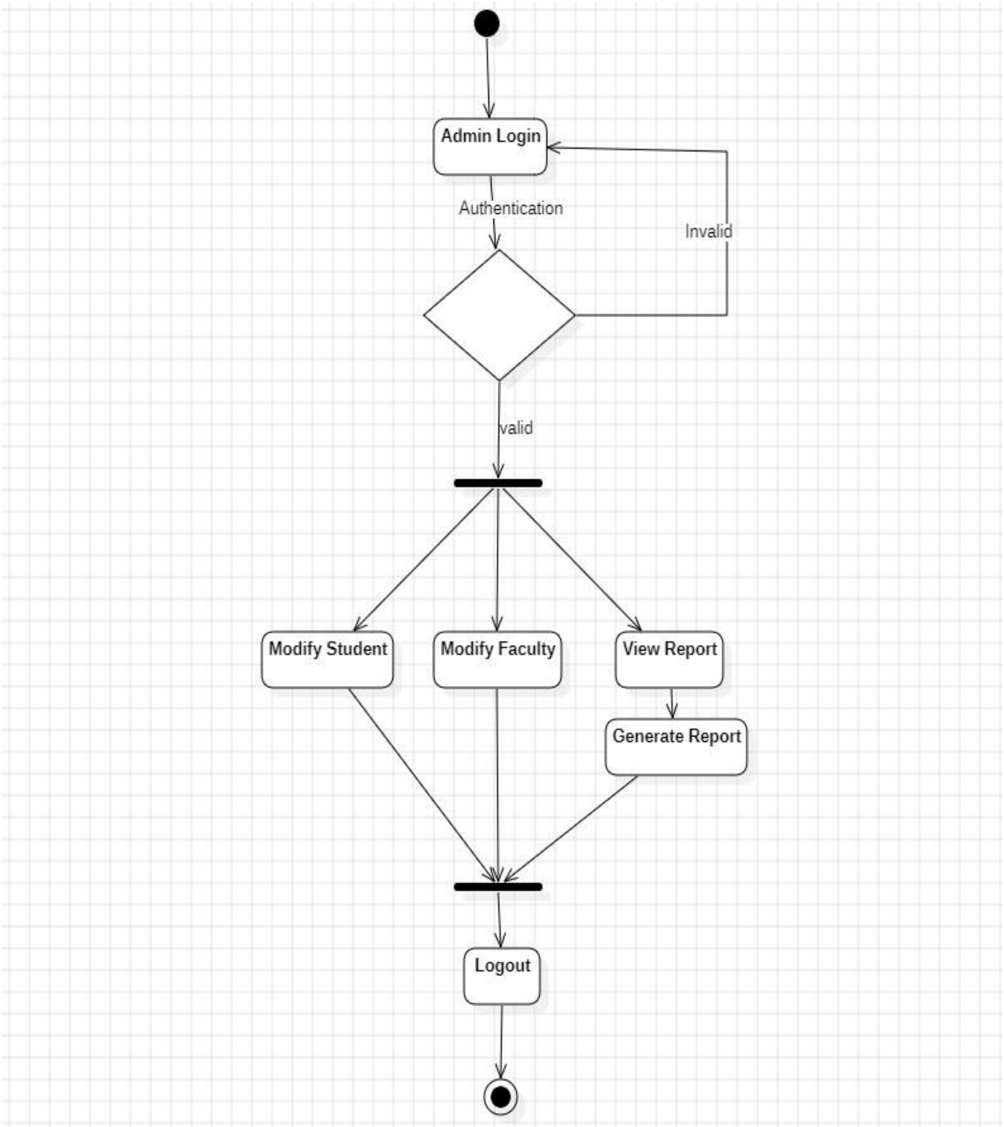
The course class contains id, name and enrolled students' attributes and get enrolled students' operation.

The admin contains his own id and password and he can manage the students and teachers. The teachers will teach the available courses to the students and take attendance.

Activity Diagram:

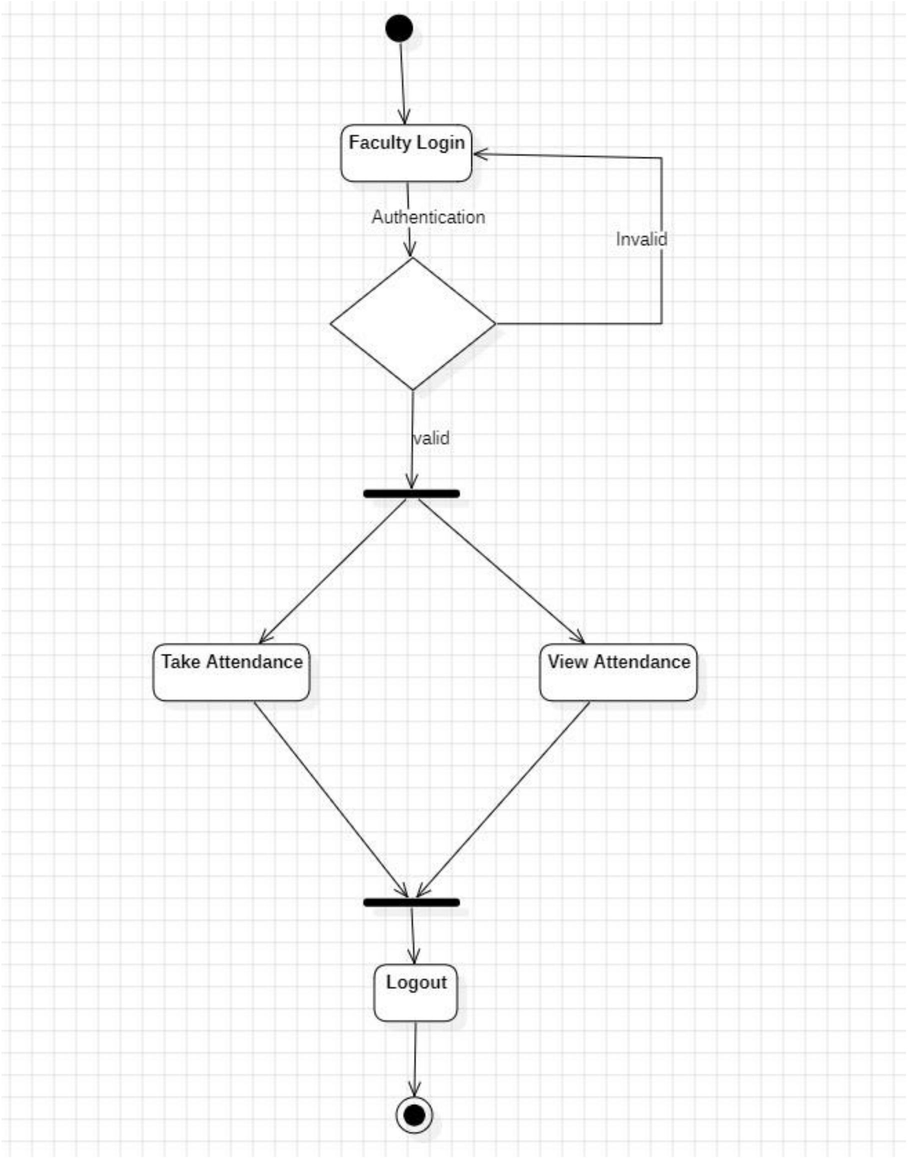
An Activity Diagram is a type of Unified Modelling Language (UML) diagram that illustrates the dynamic aspects of a system by modelling the workflow or business process as a sequence of activities. Activity diagrams focus on the flow of actions or activities, including decision points and parallel activities, within a system to achieve a specific goal or business process. They provide a high-level overview of the behavioral aspects of a system.

Admin activity diagram:



In the above given activity diagram for the admin, the admin will login into the attendance management system and manage the student and teachers records and he can view the attendance of students. After his successful operations he can logout of the system.

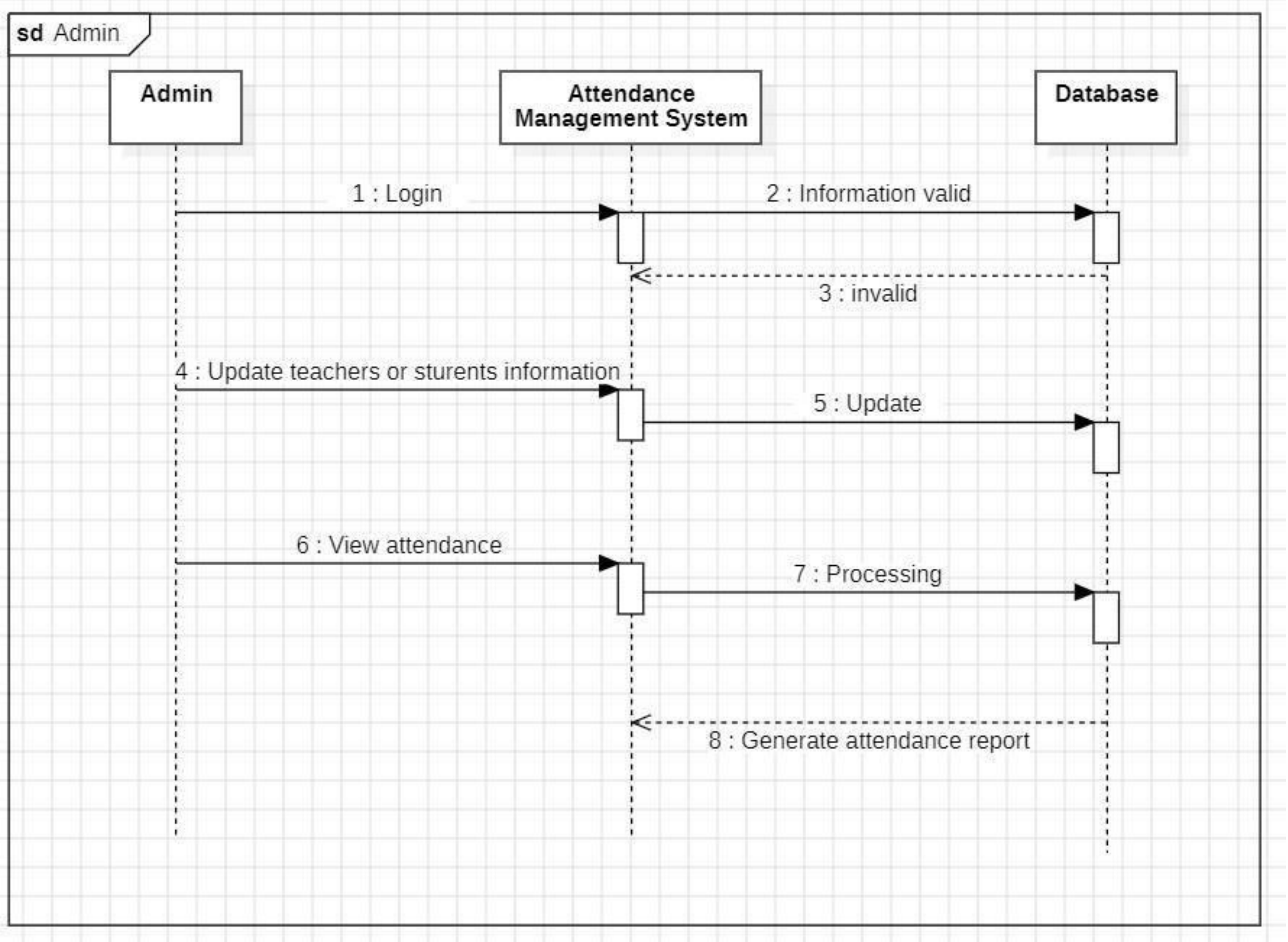
Faculty activity diagram:

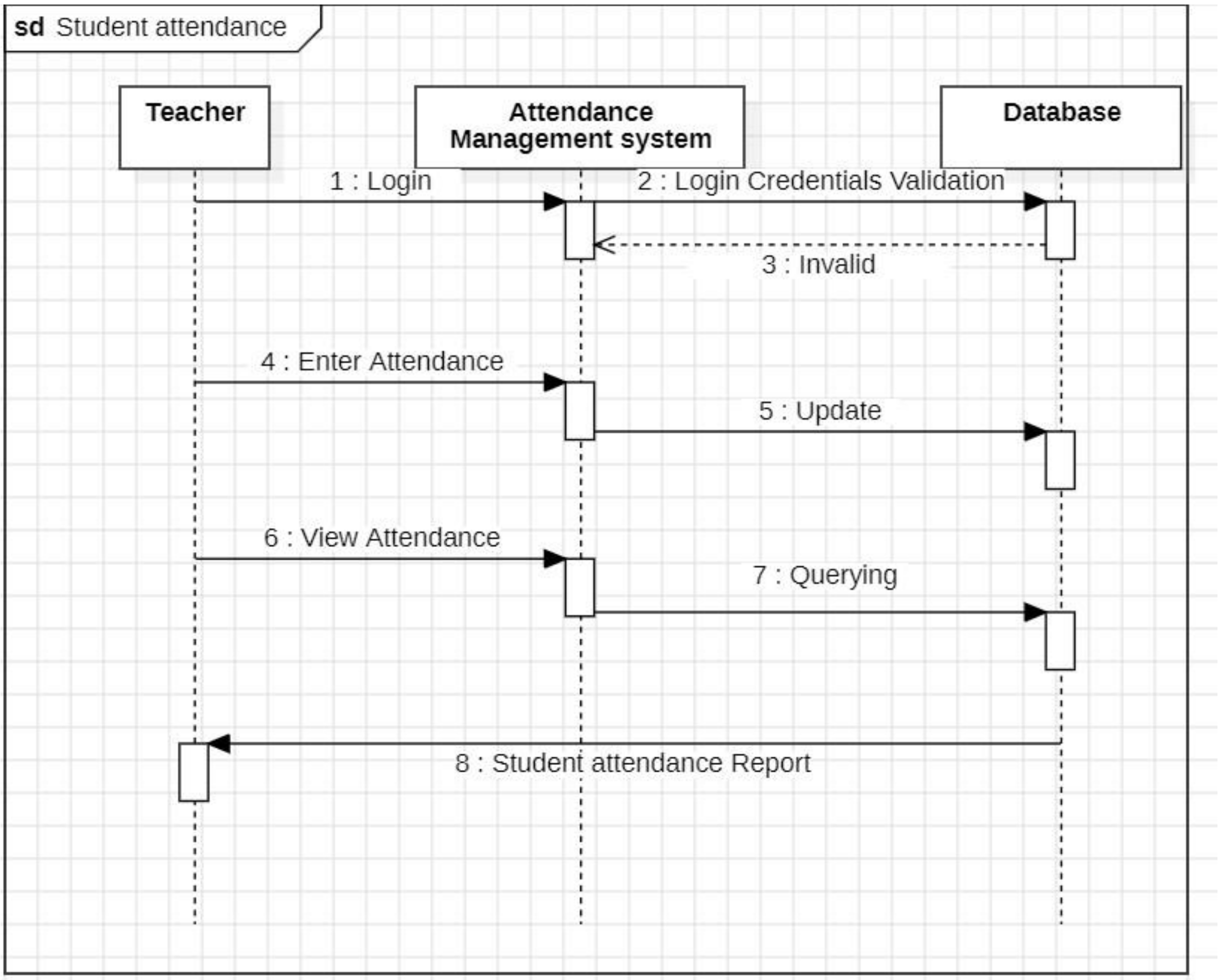


In the staff activity diagram, the faculty will login into the website and they can take and view attendance of students. The faculty can also generate reports of student attendance and faculty teaching diary.

Sequence Diagram:

A Sequence Diagram is a type of Unified Modelling Language (UML) diagram that illustrates the dynamic interactions between objects or components in a system over time. It shows the sequence of messages exchanged between different entities, such as objects or components, during a particular scenario or use case. Sequence diagrams are particularly useful for visualizing the chronological flow of interactions and understanding the collaboration between elements in a system.



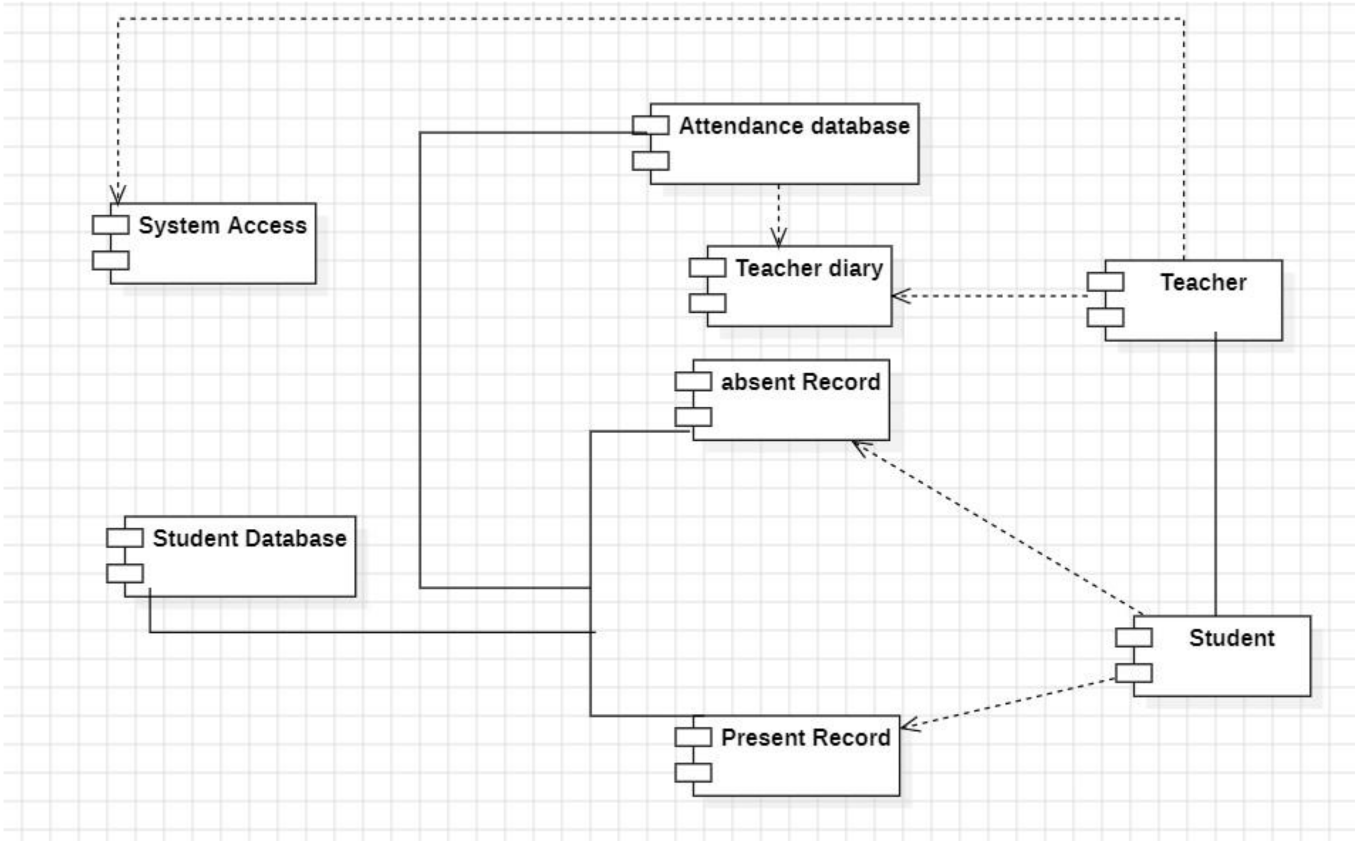


In the above sequence diagram, we have life line like Teacher, Attendance Management System and Database.

The teacher will login with username and password, if it is valid he can take the attendance of students. The attendance details are stored in the database. If the teacher wants to view the attendance, he can request to the database and the generated report is sent back to the faculty. The teachers can also view their faculty teaching diary.

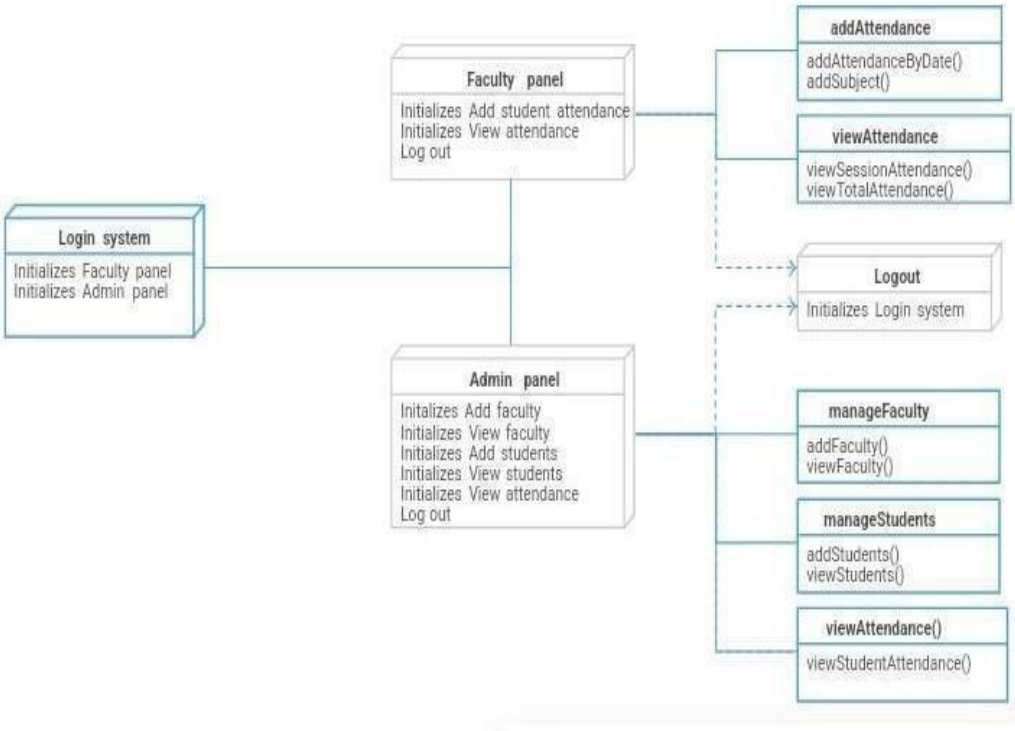
Component Diagram:

A Component Diagram is a type of Unified Modelling Language (UML) diagram that visualizes the high-level structure of a system, emphasizing the organization and dependencies among software components. It provides a static view of how various components, which can be classes, modules, or subsystems, are grouped, interconnected, and interact to form a complete system.



Deployment Diagram:

A Deployment Diagram is a type of Unified Modelling Language (UML) diagram that visualizes the physical deployment of software components and the relationships between them within a hardware environment. This diagram provides a high-level view of how software artifacts are distributed across hardware nodes, such as servers, devices, or computing resources, in a system or network.



The deployment diagram of attendance management system contains the following nodes like Login system, Faculty panel, Admin panel and logout. Here the faculty can add and view attendance and the admin can manage faculty, manage students and view attendance.

6. Database Tables

6.1 Authentication Table

Field	Description	Type	Null	Key	Default	Extra
id	Id is number which is unique for every row	int	NO	PRI	NULL	auto_increment
timestamp	Which describes about time and date that is when we added or removed rows from table	timestamp	YES		CURRENT_ TIMESTAMP	DEFAULT_GENERATED
Username	Which is username of faculty or admin	Varchar(50)	NO		NULL	
Password	Which is password of faculty or admin	Varchar(255)	NO		NULL	

Role	Role is whether he/she is admin or teacher	Varchar(50)	NO		NULL	

6.2 Student Info Table

Field	**description**	**Type**	**Null**	**Key**	**Default**	**Extra**
id	Id is number which is unique for every column	int	NO	PRI	NULL	auto_increment
timestamp	Which describes about time and date that is when we added or removed rows from table	timestamp	YES		CURRENT_TIMESTAMP	DEFAULT_GENERATED

Student_roll	Which is unique number for every student	Varchar(50)	YES		NULL	
Student_name	Which is name of students	Varchar(255)	YES		NULL	
Year	Which is a year the student is studying.	int	YES		NULL	
Branch	The branch of the student	Varchar(50)	YES		NULL	
Semester	The semester of student	int	YES		NULL	

6.3 Attendance Table

Field	description	Type	Null	Key	Default	Extra
id	Id is number which is unique for every column	int	No	PRI	NULL	auto_increment
Timestamp	Which describes about time and date that is when we added or removed rows from table	timestamp	Yes		CURRENT_TIMESTAMP	DEFAULT_GENERATED
Faculty_name	Which is name of the teachers	Varchar(255)	Yes		NULL	
Parent_dept	Which is parent department of the teacher	Varchar(255)	Yes		NULL	
Branch	The branch for which the class is taken	Varchar(255)	Yes		NULL	
Year	The year for which the class is taken	Varchar(255)	Yes		NULL	

Semester	The semester for which the	int	Yes		NULL	
	class is taken					
Hour	period the class is taken	text	Yes		NULLV	
Class_type	It describes whether taken class is theory or lab	Varchar(255)	Yes		NULL	
Subject	name of the subject	Varchar(255)	Yes		NULL	
Topic	Topic discussed in the class	Varchar(255)	Yes		NULL	
Presentees	Presentees students roll numbers in the class (csv values)	text	Yes		NULL	
Total_presentees	Total count of presentess students	int	Yes		NULL	
Total	Total strength of the class	int	Yes		73	
Absentees	Absentees' students roll numbers in class	text	Yes		NULL	

Total_absentees	Total count of absentees' students	int	Yes		NULL	

7. IMPLEMENTATION

The Implementation phase in a project refers to the stage in which the plans and designs developed during earlier phases are put into action. It is a crucial step in the project lifecycle, where the actual work of creating the deliverables and achieving project objectives takes place. The implementation phase typically follows the planning and design phases and precedes the testing and maintenance phases**.**

7.1 SOFTWARE MODULES USED FOR IMPLEMENTATION:

HTML

Version used in SAMS project:HTML5

HTML, which stands for Hypertext Markup Language, is the standard markup language for creating web pages and web applications. It provides the structure for web documents by using a system of tags and attributes to define elements within a page. HTML documents are comprised of text content and embedded tags that dictate how the content should be displayed in a web browser.

Here's a detailed breakdown of HTML:

Tags: HTML uses tags to define elements within a document. Tags are enclosed in angle brackets < > and typically come in pairs: an opening tag and a closing tag. The opening tag denotes the beginning of an element, and the closing tag denotes the end. For example:

```
<div class="top">KAKATIYA UNIVERSITY, KU-WARANGAL</div>
```

Attributes: Tags can contain attributes, which provide additional information about an element. Attributes are specified within the opening tag and usually come in namevalue pairs. For example:

<img src="{{ url_for('static', filename='images/ku2.png') }}"id="image">

Elements: Elements are the building blocks of HTML documents. They consist of a pair of tags enclosing content. Some elements are self-closing and don't require a closing tag. Elements can be nested within each other. Common HTML elements include headings, paragraphs, lists, links, images, tables, forms, and more.

Document Structure: An HTML document typically follows a specific structure:
<!DOCTYPE html>: This declaration specifies the HTML version being used.
<html>: The root element of an HTML document.
<head>: Contains metadata about the document, such as title, links to stylesheets, and scripts.
<title>: Sets the title of the document, displayed in the browser's title bar or tab.
<body>: Contains the main content of the document.

Comments: HTML allows you to add comments within your code using <!-- -->. Comments are not displayed in the browser but can be useful for documenting your code.

Text Formatting: HTML provides various tags for formatting text, such as <b> (bold), <i> (italic), <u> (underline), <strong> (strong emphasis), <em> (emphasis), <sup> (superscript), and <sub> (subscript).

Links and Anchors: Links are created using the <a> (anchor) element, with the href attribute specifying the URL of the destination. For example:

**<button id="bt" type="button"><a id="form"href="./FacultyLogin.html">
FACULTY LOGIN</a></button><br><br>**

Images: Images are displayed using the <img> element, with the src attribute specifying the image file's URL. For example:

<img src="{{ url_for('static', filename='images/ku2.png') }}"id="image">

Lists: HTML supports ordered lists <ol>, unordered lists <ul>, and definition lists <dl>, with list items defined using the <li> element.

Tables: Tables are created using the <table> element, with rows defined by the <tr> (table row) element and cells within each row defined by the <td> (table data) element.

Forms: HTML provides elements for creating forms, such as <form>, <input>, <textarea>, <select>, and <button>. Forms are used for collecting user input, such as text, checkboxes, radio buttons, and more.

Semantic HTML: HTML5 introduced semantic elements like <header>, <footer>, <nav>, <article>, <section>, <aside>, <main>, etc., which provide meaning to the content, making it more understandable for both humans and machines.

HTML is the backbone of web development, providing the foundation for creating structured and accessible web content. It works in conjunction with other technologies like CSS (Cascading Style Sheets) for styling and JavaScript for interactivity, forming the basis of modern web develop

CSS:

Version used in SAMS project:CSS2

CSS, which stands for Cascading Style Sheets, is a style sheet language used to define the presentation and appearance of HTML (Hypertext Markup Language) and XML (eXtensible Markup Language) documents. It allows web developers to control the layout, design, and formatting of web pages, including elements such as fonts, colours, spacing, positioning, and responsiveness.

Here's a detailed breakdown of CSS:

Selectors: CSS selectors are patterns used to select and style HTML elements. They can target elements based on their tag names, classes, IDs, attributes, and relationships with other elements. Some common selectors include:

Element selectors: p, div, h1, etc.

Class selectors: .classname

ID selectors: #idname

Attribute selectors: [attribute=value]

Descendant selectors: div p (selects all <p> elements inside <div> elements)

Child selectors: div > p (selects <p> elements that are direct children of <div> elements)

Properties and Values: CSS rules consist of one or more declarations enclosed in curly braces { }. Each declaration includes a property and a value, separated by a colon :.

For example, **p { color: blue; font-size: 16px;**

}

In this example, color and font-size are properties, while blue and 16px are their corresponding values.

Box Model: The CSS box model describes the layout and sizing of elements on a web page. Each element is considered a rectangular box with four components: content, padding, border, and margin.

Content: The actual content of the element.

Padding: The space between the content and the element's border.

Border: The boundary of the element.

Margin: The space between the border and adjacent elements.

Layout and Positioning: CSS provides various properties for controlling the layout and positioning of elements on a page, including:

display: Specifies how an element should be displayed (e.g., block, inline, inline-block, flex).

position: Defines the positioning scheme for an element (e.g., static, relative, absolute, fixed). **float:** Positions an element to the left or right within its containing element. **flexbox and grid:** Layout systems for creating flexible and grid-based designs.

Typography: CSS allows you to control the typography of text elements, including properties for setting font family, size, weight, style, line height, and text alignment.

Colors and Backgrounds: CSS provides properties for defining text and background colors, as well as background images, gradients, and patterns.

Responsive Design: CSS supports responsive design techniques, enabling web pages to adapt their layout and appearance based on the device's screen size and orientation. Media queries are used to apply different styles based on conditions such as screen width, height, and resolution.

Transitions and Animations: CSS allows you to create smooth transitions and animations for various elements on a web page using properties like transition and animation.

Vendor Prefixes: Some CSS properties require vendor prefixes to ensure compatibility with different web browsers. These prefixes are added before the property name to specify which browser engine should interpret the style. However, with advancements in browser support, vendor prefixes are becoming less common.

CSS is essential for creating visually appealing and user-friendly web interfaces. It works alongside HTML and JavaScript to provide the necessary structure, styling, and interactivity for modern web development. With CSS, web designers have the flexibility to customize the appearance of web pages and create engaging user experiences across different devices and screen sizes.

JAVASCRIPT:

Version used in SAMS project:1.7

JavaScript is a high-level, interpreted programming language primarily used for creating interactive web pages and web applications. It is one of the core technologies of the World Wide Web, alongside HTML (Hypertext Markup Language) and CSS (Cascading Style Sheets). JavaScript enables dynamic behavior in web pages, allowing for client-side scripting and manipulation of web page content.

Here's a detailed description of JavaScript:

Programming Paradigm: JavaScript is a versatile language that supports multiple programming paradigms, including:

- Procedural
- Object-oriented
- Functional

Syntax: JavaScript syntax is similar to that of C-based languages like C++ and Java, making it relatively easy for programmers familiar with those languages to learn. Key syntax elements include variables, data types, operators, control structures (such as if statements and loops), functions, and objects.

Client-side Scripting: JavaScript is primarily used for client-side scripting, meaning it runs in the user's web browser rather than on a web server. This enables interactive features such as form validation, DOM (Document Object Model) manipulation, event handling, animations, and asynchronous communication with servers (Ajax).

DOM Manipulation: One of the core features of JavaScript is its ability to manipulate the DOM, which represents the structure and content of a web page as a hierarchical tree of objects.

Event Handling: JavaScript allows developers to define event handlers that respond to user interactions such as clicks, key presses, mouse movements, and form submissions. Event-driven programming is central to creating interactive web applications.

Frameworks and Libraries: JavaScript has a vast ecosystem of frameworks and libraries that simplify web development and extend its capabilities. Popular front-end frameworks include React.js, AngularJS, and Vue.js, while Node.js enables server-side
JavaScript development

Security Considerations: Due to its execution in the client's browser, JavaScript code can potentially be manipulated or exploited by malicious users. Common security considerations include preventing cross-site scripting (XSS) attacks, validating user input, and securely handling sensitive data.

Browser Compatibility: JavaScript implementations may vary between web browsers, leading to compatibility issues. Developers often use feature detection and poly fills to ensure consistent behaviour across different browsers and versions.

Versatility: JavaScript is a multi-paradigm language, supporting various programming styles such as procedural, object-oriented, and functional programming. This flexibility allows developers to choose the best approach for solving different problems.

Data Types: JavaScript has several primitive data types,
including:

- Number
- String
- Boolean

- Undefined
- Null
- Symbol

Additionally, JavaScript has complex data types such as objects

and arrays.

Variables and Constants: JavaScript allows developers to declare variables using the var, let, or const keywords.

Operators: JavaScript supports various operators for performing arithmetic, comparison, logical, and assignment operations.

Functions: Functions in JavaScript are first-class citizens, meaning they can be assigned to variables, passed as arguments to other functions, and returned from functions. Functions can be declared using the function keyword or through arrow functions (=>) introduced in ECMAScript 6.

Control Structures: JavaScript supports various control structures for flow control, including if...else, switch, for loops, while loops, and do...while loops.

Error Handling: JavaScript provides mechanisms for error handling through the use of try...catch blocks, allowing developers to handle exceptions and gracefully recover from errors.

PYTHON:

Version used in SAMS project:3.12.0

Python is a high-level, interpreted programming language known for its simplicity, readability, and versatility.

It was created by Guido van Rossum and first released in 1991.

Python's design philosophy emphasizes code readability and a clean, concise syntax, making it an ideal language for both beginners and experienced programmers.

Features of Python:

Easy to Learn and Use: Python's simple and straightforward syntax makes it easy to learn, even for those new to programming.

Expressive Language: Python allows developers to express concepts in fewer lines of code compared to other languages, which promotes code readability and reduces development time.

Interpreted and Interactive: Python is an interpreted language, meaning that code is executed line by line, making it easy to test code interactively in a Python shell or interpreter.

Cross-platform: Python is available on multiple platforms, including Windows, macOS, and various Unix/Linux distributions, making it highly portable

Extensive Standard Library: Python comes with a comprehensive standard library that provides support for various tasks such as file I/O, networking, data manipulation, and web development, reducing the need for external libraries.

Dynamic Typing: Python is dynamically typed, allowing variables to be assigned without explicitly specifying their data type. This promotes flexibility and rapid prototyping.

Object-Oriented: Python supports object-oriented programming principles, including classes, inheritance, encapsulation, and polymorphism.

Community and Ecosystem: Python has a large and active community of developers who contribute to its growth and
development. The Python Package Index (PyPI) hosts thousands of third-party libraries and frameworks, expanding Python's capabilities for various domains and applications.

Variables and Data Types: Python supports various data types, including integers, floats, strings, booleans, lists, tuples, sets, dictionaries, and more. Variables are dynamically typed and do not require explicit declaration.

Control Flow: Python provides control flow constructs such as if statements, for loops, while loops, and conditional expressions (if ... else).

Functions: Functions in Python are defined using the def keyword and can accept parameters and return values. Python also supports lambda functions for creating anonymous functions.

Modules and Packages: Python code can be organized into modules, which are files containing Python code, and packages, which are directories containing multiple modules. Modules and packages promote code reusability and maintainability.

Exception Handling: Python supports exception handling using try ... except blocks, allowing developers to gracefully handle errors and exceptions.

File I/O: Python provides built-in functions for reading from and writing to files, making it easy to work with external data sources.

Python Libraries and Frameworks used in SAMS:

mysql.connector:

mysql.connector is a Python library used for connecting to MySQL databases.

It provides an interface for interacting with MySQL databases from Python code.

With mysql.connector, you can execute SQL queries, insert, update, or delete data in MySQL tables, and perform various database operations.

Flask:

Flask is a lightweight web framework for Python, used for building web applications.

It provides tools and utilities for handling HTTP requests and responses, routing, template rendering, and more.Flask follows the WSGI (Web Server Gateway Interface) specification and can be easily integrated with other Python libraries and frameworks.

from flask import Flask, render_template, request, jsonify, redirect, url_for, send_file: This imports various functions and classes from the Flask library.

Flask: The Flask class is used to create a Flask application instance.

render_template: This function is used to render HTML templates in Flask applications.

request: The request object provides access to incoming HTTP request data.

jsonify: This function converts Python dictionaries or lists to JSON format, suitable for returning JSON responses from Flask routes.

redirect: This function is used to redirect the client to a different URL.

url_for: This function is used to generate URLs for Flask routes.

send_file: This function is used to send files to the client as responses.

from io import BytesIO: This imports the BytesIO class from the io module, which is used to create in-memory binary streams. This can be useful for handling file-like objects in memory.

Other libraries in python are:

NumPy and SciPy

Pandas

Matplotlib and Seaborn

Django and Flask

TensorFlow and PyTorch

Requests

Beautiful Soup

Scikit-learn

Python in Various Domains:

- Web Development
- Data Science and Machine Learning
- Automation and Scripting ○ Scientific Computing
- Desktop GUI Applications

MYSQL:

Version used in SAMS project:8.3.0

MySQL is an open-source relational database management system (RDBMS) widely used for building and managing databases. It is a powerful and popular choice for web applications, particularly for those requiring structured data storage, retrieval, and management. Here's a comprehensive overview of MySQL:

Relational Database Management System (RDBMS):

MySQL is an RDBMS, which means it organizes data into tables consisting of rows and columns, following the relational model.

It supports SQL (Structured Query Language), a standardized language for managing relational databases. Developers use SQL to define database schemas, query data, manipulate data, and manage database objects such as tables, indexes, and views.

Features:

- Scalability
- High Performance
- Cross-Platform Compatibility
- High Availability
- Security

Tools and Utilities:

MySQL provides a set of tools and utilities for database administration, development, and monitoring.

Some of the commonly used tools include MySQL Workbench (a graphical tool for database design, development, and administration), MySQL Shell (a command-line interface for MySQL), and MySQL Enterprise Monitor (for performance monitoring and management).

Views:

A view in MySQL is a virtual table based on the result set of a SELECT query.

Functions:

MySQL provides a wide range of built-in functions for performing various operations on data stored in the database.

Functions in MySQL can be categorized into several types:

- ✞ Scalar Functions
- ✞ Aggregate Functions
- ✞ Control Flow Functions
- ✞ Window Functions
- ✞ User-Defined Functions (UDFs)

Data Types:

MySQL supports various data types for storing different types of data, including:

Numeric Types: INT, BIGINT, FLOAT, DOUBLE, DECIMAL, etc., for storing numeric values.

String Types: CHAR, VARCHAR, TEXT, BLOB, etc., for storing character strings and binary data.

Date and Time Types: DATE, TIME, DATETIME, TIMESTAMP, etc., for storing date and time values.

Boolean Type: MySQL does not have a built-in BOOLEAN data type, but

BOOLEAN values are represented using TINYINT(1) or BOOL.

Spatial Data Types: POINT, LINESTRING, POLYGON, etc., for storing spatial data such as geographic coordinates.

Constraints:

Constraints in MySQL are rules applied to columns or tables to enforce data integrity and maintain consistency.

Common types of constraints include:

Primary Key: A column or combination of columns that uniquely identify each row in a table.

Foreign Key: A column or set of columns that establishes a relationship between tables, enforcing referential integrity.

Unique Constraint: Ensures that values in a column or combination of columns are unique across the table.

Check Constraint: Specifies conditions that must be satisfied for data to be valid.

Constraints are defined during table creation using the CREATE TABLE statement or added later using the ALTER TABLE statement.

Triggers:

Triggers in MySQL are special types of stored programs that are automatically executed in response to specified events on a table, such as INSERT, UPDATE, or DELETE operations.

Triggers are useful for enforcing business rules, maintaining audit trails, and performing complex data validation and manipulation tasks.

Triggers are defined using the CREATE TRIGGER statement and can be invoked before or after the triggering event occurs.

7.2 REPORTS GENERATION

The generation of reports in a Student Attendance Management System (SAMS) project holds significant importance for various reasons, contributing to the effectiveness and efficiency of the system. Here are several key reasons highlighting the importance of report generation in a SAMS project:

Attendance Analysis:

Reports provide valuable insights into student attendance patterns, allowing administrators and educators to analyze attendance data over different time periods. This analysis can help identify irregularities in student attendance, facilitating informed decision-making.

Monitoring Student Performance:

Attendance reports can be correlated with academic performance data to assess the impact of attendance on student success. By integrating attendance information with grades and assessments, educators can gain a particular view of student engagement and progress.

Early Intervention:

Timely attendance reports can serve as an early warning system. Educators and administrators can identify students with consistently low attendance early in the semester, enabling proactive measures such as counselling or interventions to address potential challenges before they escalate.

Record-Keeping and Compliance Reporting:

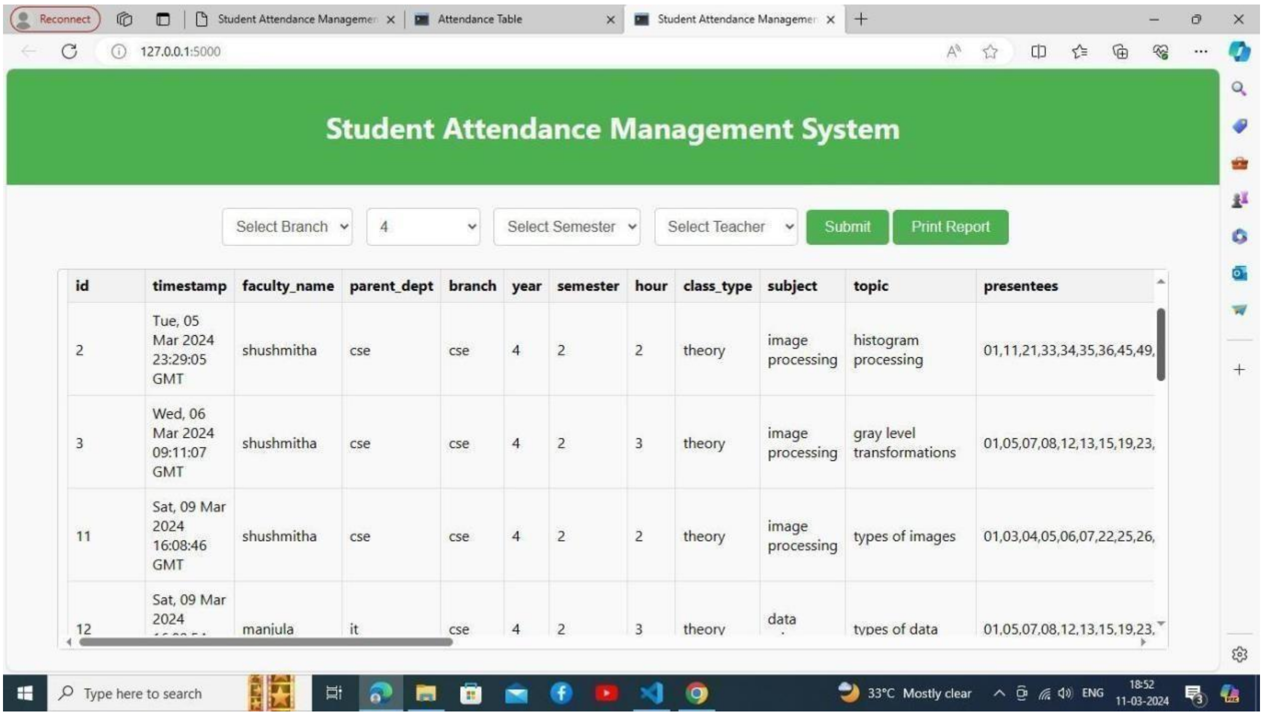
Proper documentation of attendance through reports is essential for recordkeeping and compliance reporting. It ensures that institutions have accurate and up-to-date records, which in conclusion, the generation of reports in a Student Attendance Management System is essential for informed decision making, ensuring compliance, and promoting the overall effectiveness of the educational environment. Reports serve as a valuable tool for administrators, educators to monitor, analyze, and enhance the attendance and academic outcomes of students.

SAMPLE REPORTS GENERATION OUTPUT SCREENS:

7.2.1 Teacher diary output screens:

Year wise reports:

The below screen can contain the information about teacher dairy which belongs to a particular year.

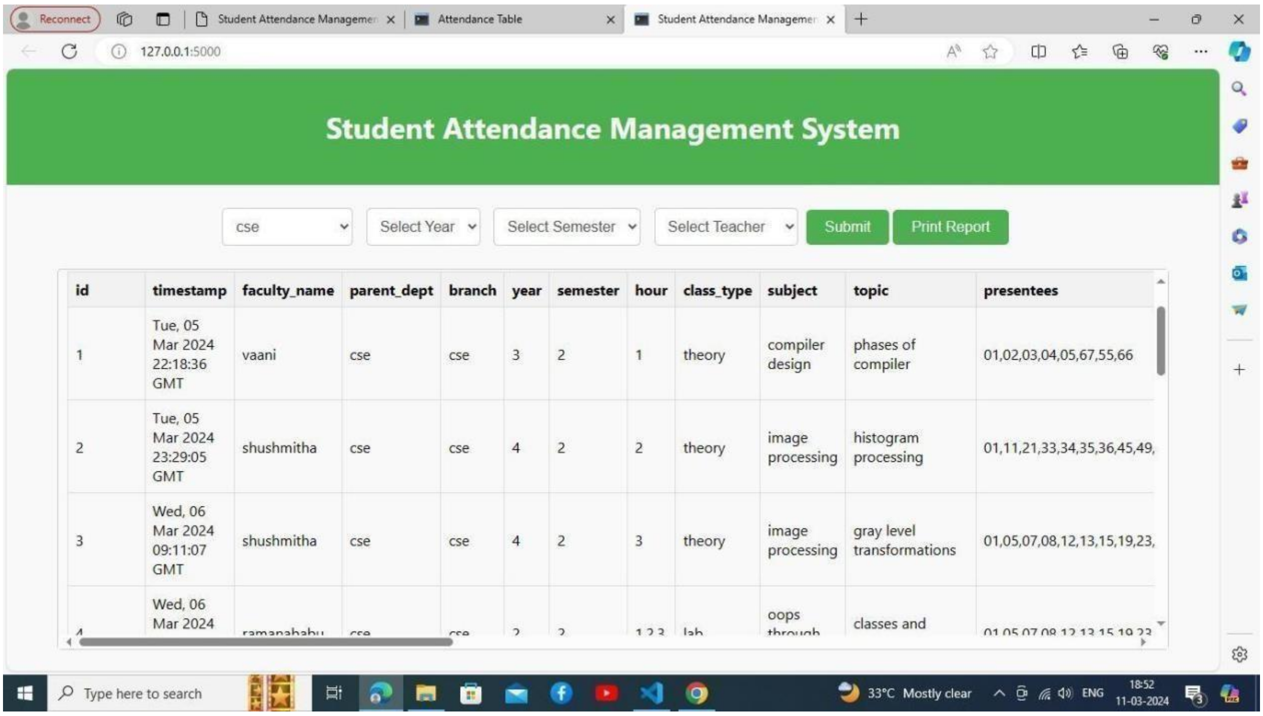


Student Attendance Management System

id	timestamp	faculty_name	parent_dept	branch	year	semester	hour	class_type	subject	topic	presentees
2	Tue, 05 Mar 2024 23:29:05 GMT	shushmitha	cse	cse	4	2	2	theory	image processing	histogram processing	01,11,21,33,34,35,36,45,49,
3	Wed, 06 Mar 2024 09:11:07 GMT	shushmitha	cse	cse	4	2	3	theory	image processing	gray level transformations	01,05,07,08,12,13,15,19,23,
11	Sat, 09 Mar 2024 16:08:46 GMT	shushmitha	cse	cse	4	2	2	theory	image processing	types of images	01,03,04,05,06,07,22,25,26,
12	Sat, 09 Mar 2024	manjula	it	cse	4	2	3	theory	data	types of data	01,05,07,08,12,13,15,19,23,

Branch wise reports:

The below screen can contain the information about teacher dairy which are belongs to a particular branch.



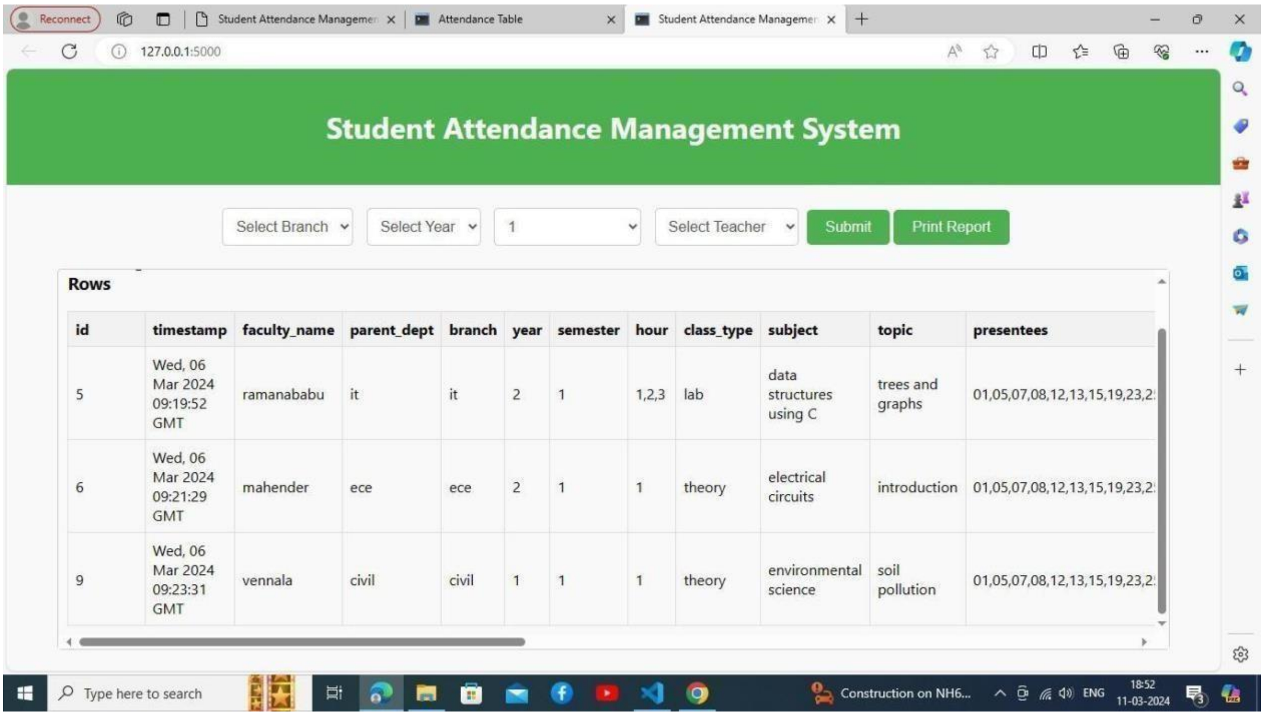
Student Attendance Management System

cse | Select Year | Select Semester | Select Teacher | Submit | Print Report

id	timestamp	faculty_name	parent_dept	branch	year	semester	hour	class_type	subject	topic	presentees
1	Tue, 05 Mar 2024 22:18:36 GMT	vaani	cse	cse	3	2	1	theory	compiler design	phases of compiler	01,02,03,04,05,67,55,66
2	Tue, 05 Mar 2024 23:29:05 GMT	shushmitha	cse	cse	4	2	2	theory	image processing	histogram processing	01,11,21,33,34,35,36,45,49,
3	Wed, 06 Mar 2024 09:11:07 GMT	shushmitha	cse	cse	4	2	3	theory	image processing	gray level transformations	01,05,07,08,12,13,15,19,23,
4	Wed, 06 Mar 2024	ramanababu	cse	cse	2	2	1,2,3	lab	oops through	classes and	01,05,07,08,12,13,15,19,23

Semester wise reports:

The below screen can contain the information about teacher dairy which. are belongs to a particular semester.



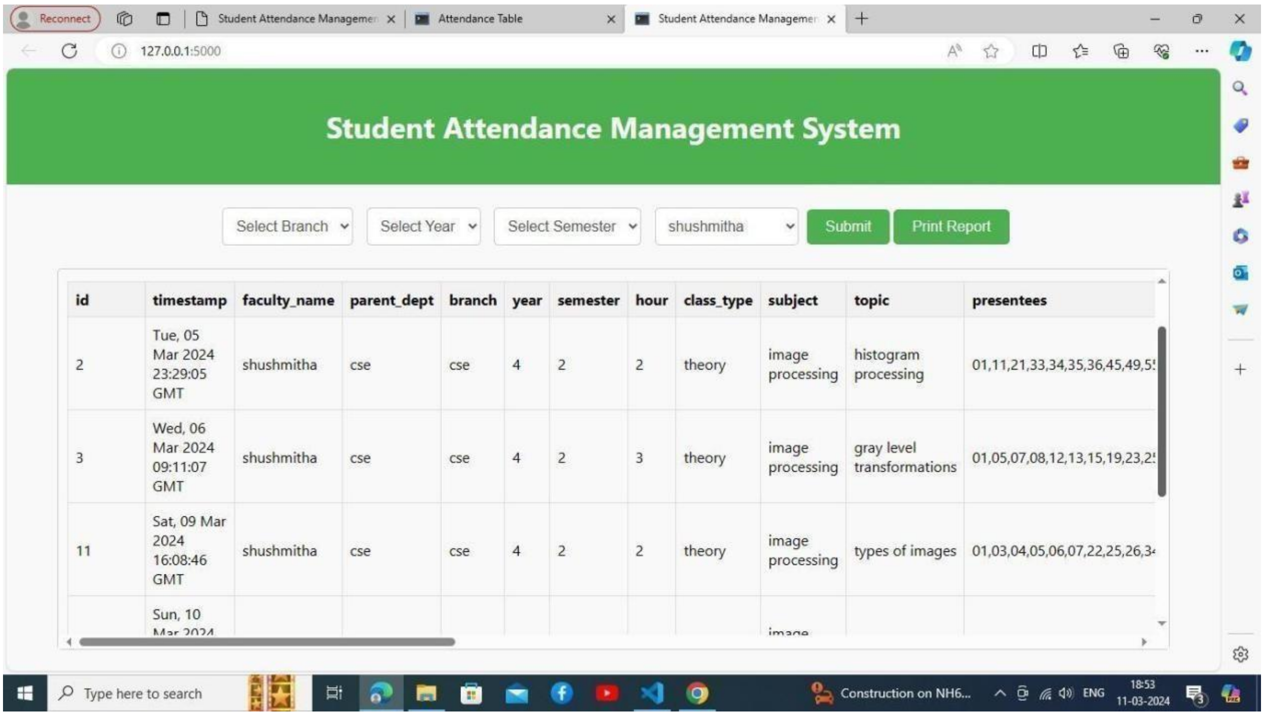
Student Attendance Management System

Rows

id	timestamp	faculty_name	parent_dept	branch	year	semester	hour	class_type	subject	topic	presentees
5	Wed, 06 Mar 2024 09:19:52 GMT	ramanababu	it	it	2	1	1,2,3	lab	data structures using C	trees and graphs	01,05,07,08,12,13,15,19,23,2
6	Wed, 06 Mar 2024 09:21:29 GMT	mahender	ece	ece	2	1	1	theory	electrical circuits	introduction	01,05,07,08,12,13,15,19,23,2
9	Wed, 06 Mar 2024 09:23:31 GMT	vennala	civil	civil	1	1	1	theory	environmental science	soil pollution	01,05,07,08,12,13,15,19,23,2

Teacher wise reports:

The below screen can contain the information about teacher dairy which are belongs to a particular teacher.

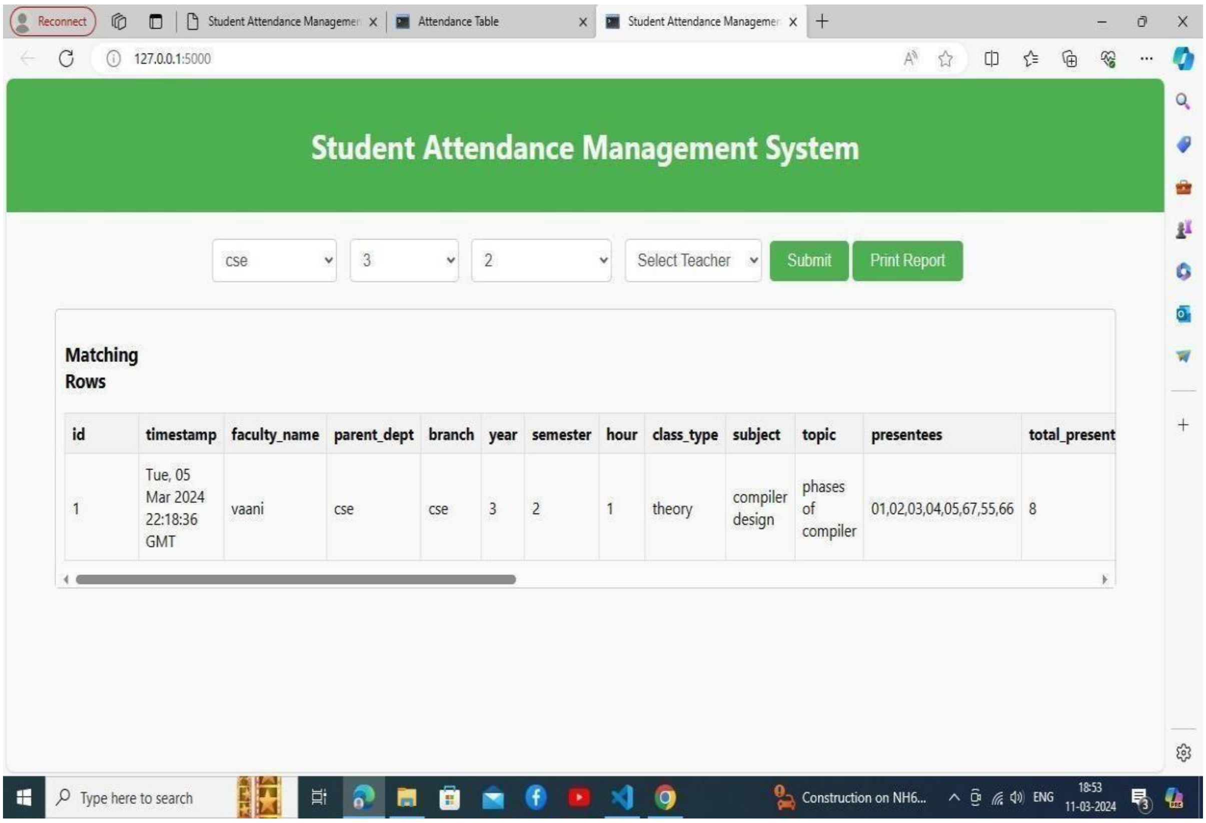


Student Attendance Management System

id	timestamp	faculty_name	parent_dept	branch	year	semester	hour	class_type	subject	topic	presentees
2	Tue, 05 Mar 2024 23:29:05 GMT	shushmitha	cse	cse	4	2	2	theory	image processing	histogram processing	01,11,21,33,34,35,36,45,49,5
3	Wed, 06 Mar 2024 09:11:07 GMT	shushmitha	cse	cse	4	2	3	theory	image processing	gray level transformations	01,05,07,08,12,13,15,19,23,2
11	Sat, 09 Mar 2024 16:08:46 GMT	shushmitha	cse	cse	4	2	2	theory	image processing	types of images	01,03,04,05,06,07,22,25,26,3
	Sun, 10 Mar 2024								image		

Year, branch, semester wise reports:

The below output screens contain information belongs to teacher dairy of particular branch, year, semester.

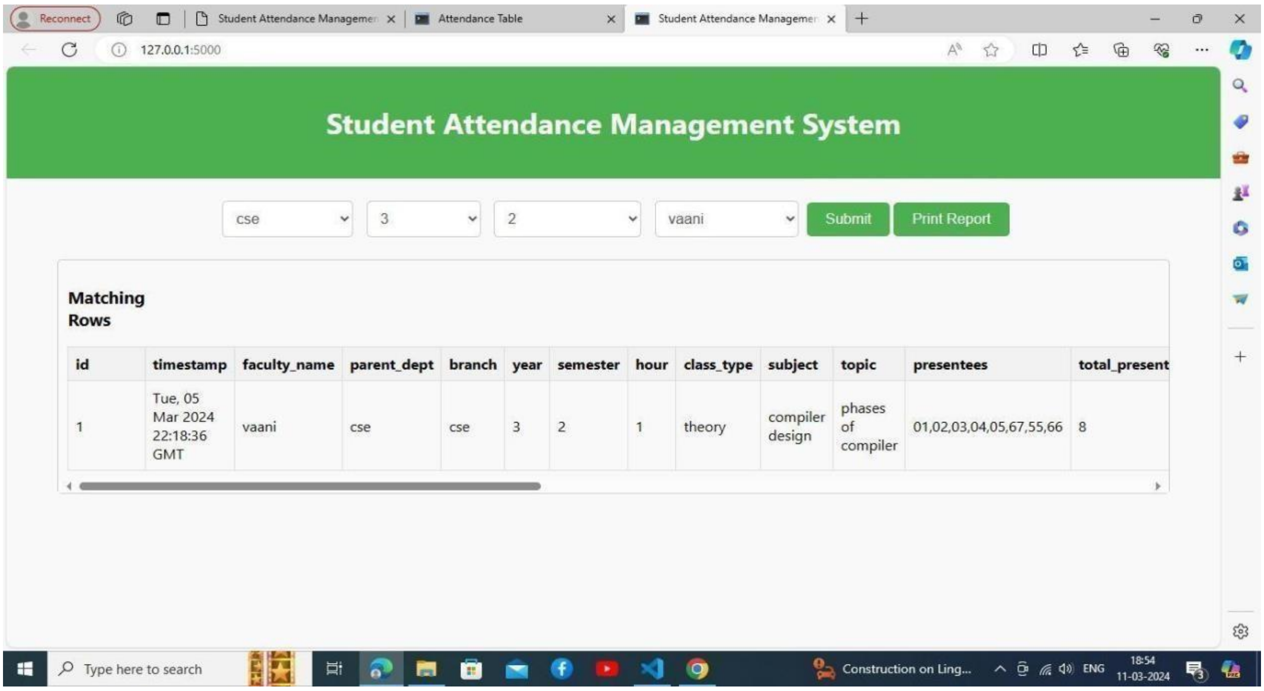


Matching Rows

id	timestamp	faculty_name	parent_dept	branch	year	semester	hour	class_type	subject	topic	presentees	total_present
1	Tue, 05 Mar 2024 22:18:36 GMT	vaani	cse	cse	3	2	1	theory	compiler design	phases of compiler	01,02,03,04,05,67,55,66	8

Year, branch, semester, and teacher wise reports:

The below output screens contain information belongs to teacher dairy of particular branch, year, semester and teacher.



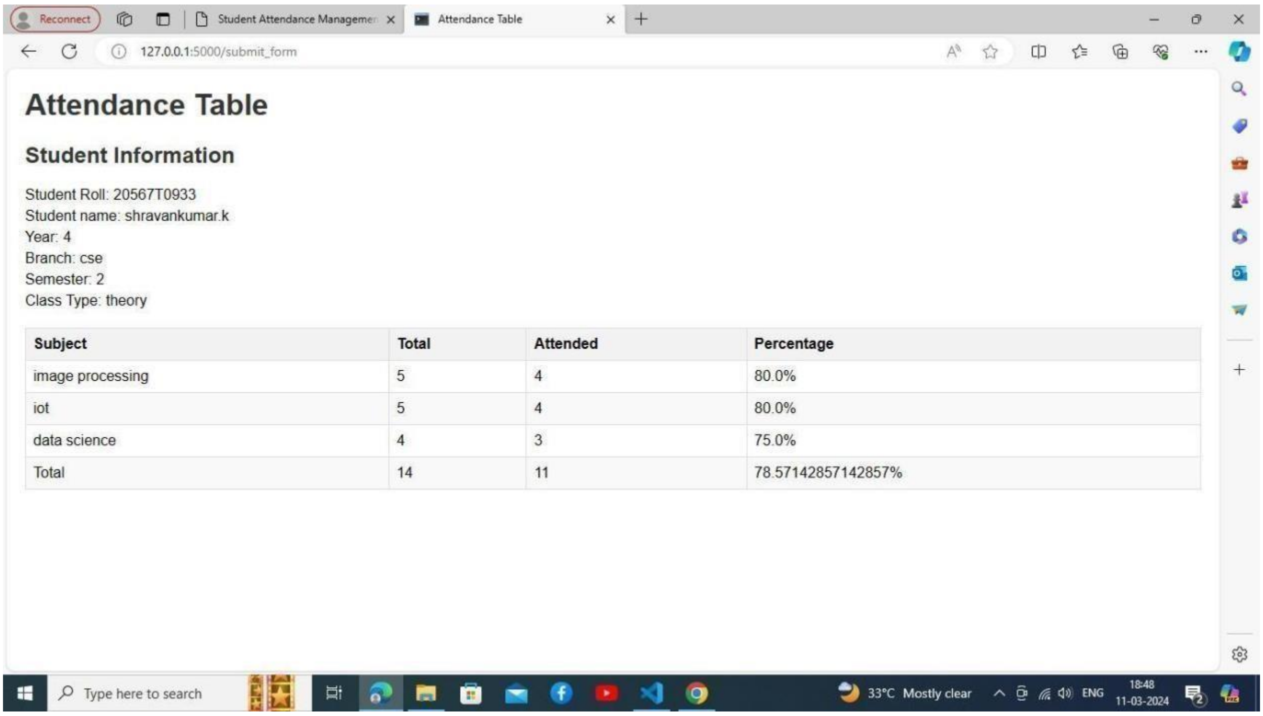
Matching Rows

id	timestamp	faculty_name	parent_dept	branch	year	semester	hour	class_type	subject	topic	presentees	total_present
1	Tue, 05 Mar 2024 22:18:36 GMT	vaani	cse	cse	3	2	1	theory	compiler design	phases of compiler	01,02,03,04,05,67,55,66	8

7.2.2 Student attendance output screens:

A regular student attendance report:

The below screen can contain information of regular student of fourth year, second semester, cse branch with total and attended classes of that student in each subject with an overall percentage of attendance.



Attendance Table

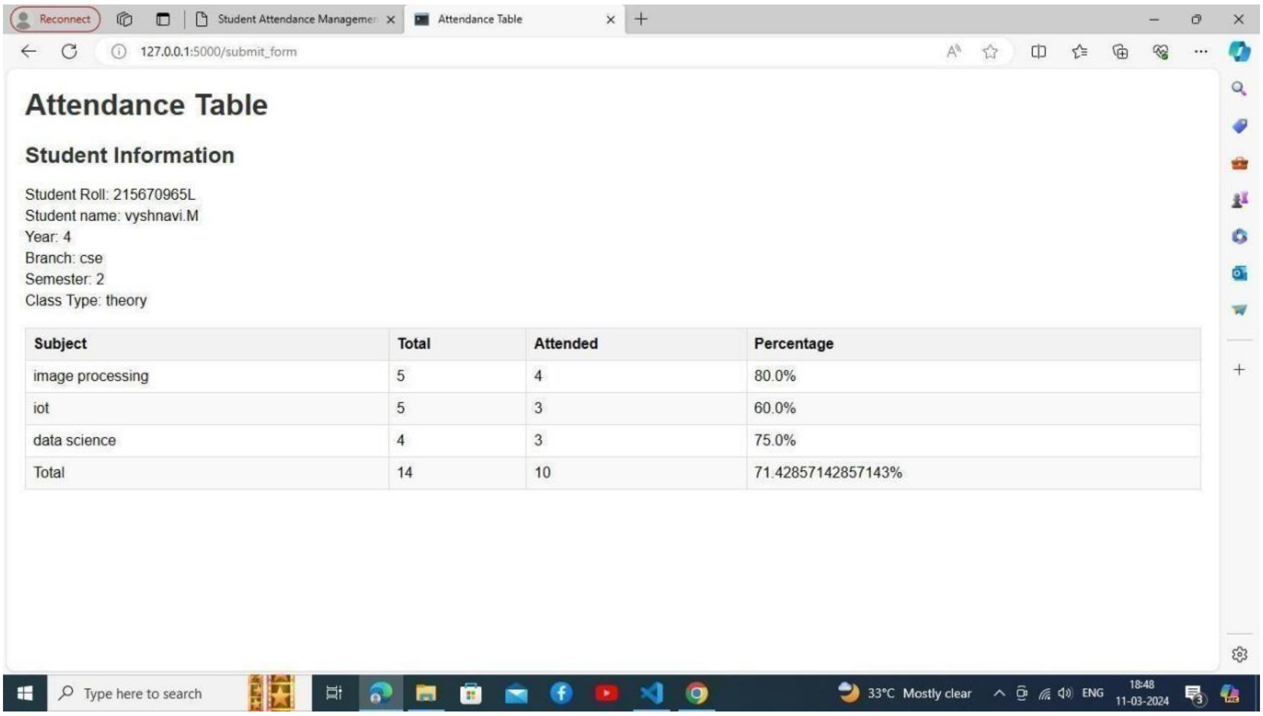
Student Information

Student Roll: 20567T0933
Student name: shravankumar.k
Year: 4
Branch: cse
Semester: 2
Class Type: theory

Subject	Total	Attended	Percentage
image processing	5	4	80.0%
iot	5	4	80.0%
data science	4	3	75.0%
Total	14	11	78.57142857142857%

A lateral student attendance report:

The below screen can contain information of lateral student of fourth year, second semester and cse branch with total and attended classes of that student in each subject with an overall percentage of attendance.



Attendance Table

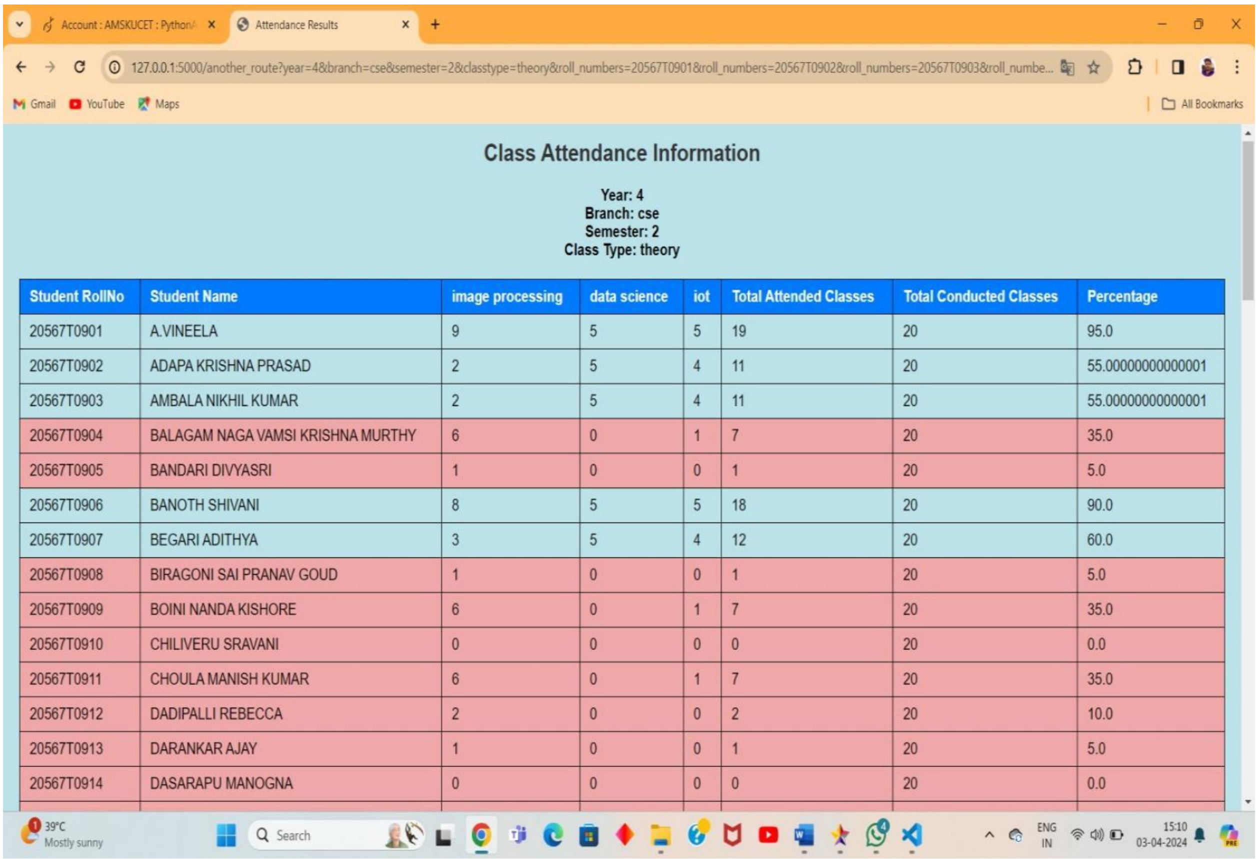
Student Information

Student Roll: 215670965L
Student name: vyshnavi.M
Year: 4
Branch: cse
Semester: 2
Class Type: theory

Subject	Total	Attended	Percentage
image processing	5	4	80.0%
iot	5	3	60.0%
data science	4	3	75.0%
Total	14	10	71.42857142857143%

Class wise attendance report:

The below screen can contain information of students of fourth year, second semester and cse branch with total and attended classes of that students in each subject with an overall percentage of attendance.


Account : AMSKUCET : PythonA
Attendance Results
127.0.0.1:5000/another_route?year=4&branch=cse&semester=2&classtype=theory&roll_numbers=20567T0901&roll_numbers=20567T0902&roll_numbers=20567T0903&roll_numbe...
Gmail
YouTube
Maps
All Bookmarks

Class Attendance Information

Year: 4
Branch: cse
Semester: 2
Class Type: theory

Student RollNo	Student Name	image processing	data science	iot	Total Attended Classes	Total Conducted Classes	Percentage
20567T0901	A.VINEELA	9	5	5	19	20	95.0
20567T0902	ADAPA KRISHNA PRASAD	2	5	4	11	20	55.00000000000001
20567T0903	AMBALA NIKHIL KUMAR	2	5	4	11	20	55.00000000000001
20567T0904	BALAGAM NAGA VAMSI KRISHNA MURTHY	6	0	1	7	20	35.0
20567T0905	BANDARI DIVYASRI	1	0	0	1	20	5.0
20567T0906	BANOTH SHIVANI	8	5	5	18	20	90.0
20567T0907	BEGARI ADITHYA	3	5	4	12	20	60.0
20567T0908	BIRAGONI SAI PRANAV GOUD	1	0	0	1	20	5.0
20567T0909	BOINI NANDA KISHORE	6	0	1	7	20	35.0
20567T0910	CHILIVERU SRAVANI	0	0	0	0	20	0.0
20567T0911	CHOULA MANISH KUMAR	6	0	1	7	20	35.0
20567T0912	DADIPALLI REBECCA	2	0	0	2	20	10.0
20567T0913	DARANKAR AJAY	1	0	0	1	20	5.0
20567T0914	DASARAPU MANOGNA	0	0	0	0	20	0.0

8. SAMPLE CODE

Sample code is a critical component of documentation, serving as a practical guide for users implementing specific features or functionalities. By providing tangible examples, it demonstrates correct syntax, usage patterns, and integration practices in a real-world context. This is particularly beneficial for users new to a technology, offering a hands-on learning aid that accelerates their understanding and implementation process. Sample code not only reduces the likelihood of errors by showcasing proven patterns but also acts as a quick reference for developers during coding. Some of the major functions and important code line are given below:

Database Connection code

```
Import mysql.connector

# Replace these variables with your actual database credentials

host = 'localhost' user = 'root' password = 'Kirannayak@1' database = 'attendance'
# Create a connection to the MySQL database

connection = mysql.connector.Connect ( host = host,      user = user,
                                                   password=password,
database=database)
```

The above-mentioned code is used for the connection to the database where the database name is attendance and which also contain details about username and password required for database connection.

Authentication code

```
def authenticate_admin(Username, password):
```

def authenticate Admin() function contains parameters like username, password if enter username and password are correct then after checking role in the database Using def Succes Page() Function If the Role is Teacher it will redirect to success1page (Teacher Functionality page) and if role is equal to Admin it will redirect to Admin Page (Admin functionality screen).

Manage Techers Info code

```
def manage_faculty_info():
```

This function can add or remove the username and password and role in the authentication table. The def manage faculty info() function contains parameters like username ,password, role.

Manage Students Info code

```
def manage_student_info():
```

The def Student() function is used to add or remove the students information into the Student Info Table .where which contains parameters like Student Roll, Student Name , Year, Branch, Semester details.

Attendance Form code

def take_attendance_post():

def take_attendance_post(): function is used to take attendance which contains details about faculty name, parent department, branch, year, semester, subject name, topic, no of students presents(CSV values) .whenever the Teacher enter all the above details they will store in table name attendance1. After we are calling another function update_absentees() which can update the absentees based on total no of student subtracted from entered Presentees students roll no.'s.

Faculty Dairy Reports Generation code

Def get_unique_column_values(column_name):

def admin_index():

def get_matching_rows_route():

After successful submission of attendance Form, we are going generate reports about Faculty Dairy in Front end part Contains Four Dropdown menus with year, Branch, Semester, and Faculty Name. The Dropdown menu values will get using the def get_unique_column_values(column_name): function which can take column name as parameter.

Then whenever we select specified menu we get that matching details from database table with the help of the function def get_matching_rows_route().

Students Reports Generation code

```
def filter_subjects(student):
```

The above function def filter_subjects can filter the subjects which belongs to particular student of particular year, branch, semester, with class type which can take one parameter is student.

We can get output in table format like that particular roll no student attended how many classes of each subject of that branch, year, semester with his attendance percentage.

9. TESTING

Testing is a systematic and organized process of evaluating a system or application to identify any discrepancies between expected and actual results. The primary goal of testing in software development is to ensure that the software or system functions correctly, meets its requirements, and performs reliably under various conditions. Testing involves executing the software, analyzing its behavior, and verifying its compliance with specified requirements.

9.1 Validation Testing:

Validation testing ensures that the software product satisfies or fits the intended use and user requirements. It focuses on evaluating the software in the context of the end-user's needs. Some common types of validation testing include:

- User Acceptance Testing
- Alpha Testing
- Beta Testing

S no	Test case id	Test Case name	Test case desc	Step	Expected Result	Actual Result	Total case Status Pass/Fail

1	Login Admin	Validate login	To verify login username and password on admin login page	Enter admin username and password then click login button	If success login redirects to another page and if un successful login redirects to home page	Redirect to another page	pass
2	Login Faculty	Validate login	To verify login username and password on faculty login page	Enter the faculty username and password Then click login button	If success login redirects to another page and if un successful login redirects to home page	Redirect to another page	pass
3	Add/Remove student details	Validate allocation form	To allocate/ remove student details	Enter student details like year, branch, semester, roll no and Student name then click on ADD/ REMOVE button	These details to be add/ remove in student info table in database	Added Success-fully Or Removed success-fully	pass

4	Add/Remove Faculty details	Validate allocation form	To allocate/ remove Faculty details	Enter username password and Role then click on ADD/ REMOVE button	These details to be add/remove in authentica-tion table in database	Added Success-fully Or removed success-fully	pass
5	Take attendance	To validate attendance details in database	To store all attendance details	Enter faculty name, year, branch, semester, subject name, topic, hour, present (csv values) etc. Click on submit button	The details can be stored in attendance table in database	Added Success-fully	pass

9.2 Unit Testing:

Unit testing involves testing individual units or components of the software in isolation. The goal is to validate that each unit of the software performs as designed. Common types of unit testing include:

- o Black Box Testing
- o White Box Testing

Admin and Faculty authentication:

When admin or faculty try to login to the Student Attendance Management System, if the credentials provided by them are compared in database and if they match then the admin or faculty will be logged in.

Test case result: pass

If the credentials entered don't match.

Test case result: fail

9.3 Module Testing:

Module testing, also known as component testing, focuses on testing individual modules or components of the software. Modules are groups of related functions or procedures. Module testing ensures that each module behaves as expected and integrates well with other modules.

Testing on reports generations:

We have two repots generation screen they are: students and faculty dairy report generation screens

Faculty dairy report generation:

It is mainly to validate whether we are getting specified output or not based on given input parameters here we have four dropdown menus with year, branch, semester, faculty name and one submit button.

Whenever we tested with branch, we got all details of faculty dairy about that particular branch.

Test case result: pass

Whenever we tested with year, we got all details of faculty dairy about that particular year.

Test case result: pass

Whenever we tested with semester, we got all details of faculty dairy about that particular semester.

Test case result: pass

Whenever we tested with faculty name, we got all details of faculty dairy about that particular faculty name.

Test case result: pass

Whenever we tested with year, semester, branch we got all details of faculty dairy about that particular year, semester, branch.

Test case result: pass

Whenever we tested with year, semester, branch, faculty name we got all details of faculty dairy about that particular year, semester, branch, faculty name.

Test case result: pass

If no matches found we have to get no matches found message in web page not in console.

Test case result: fail

Student Attendance report generation:

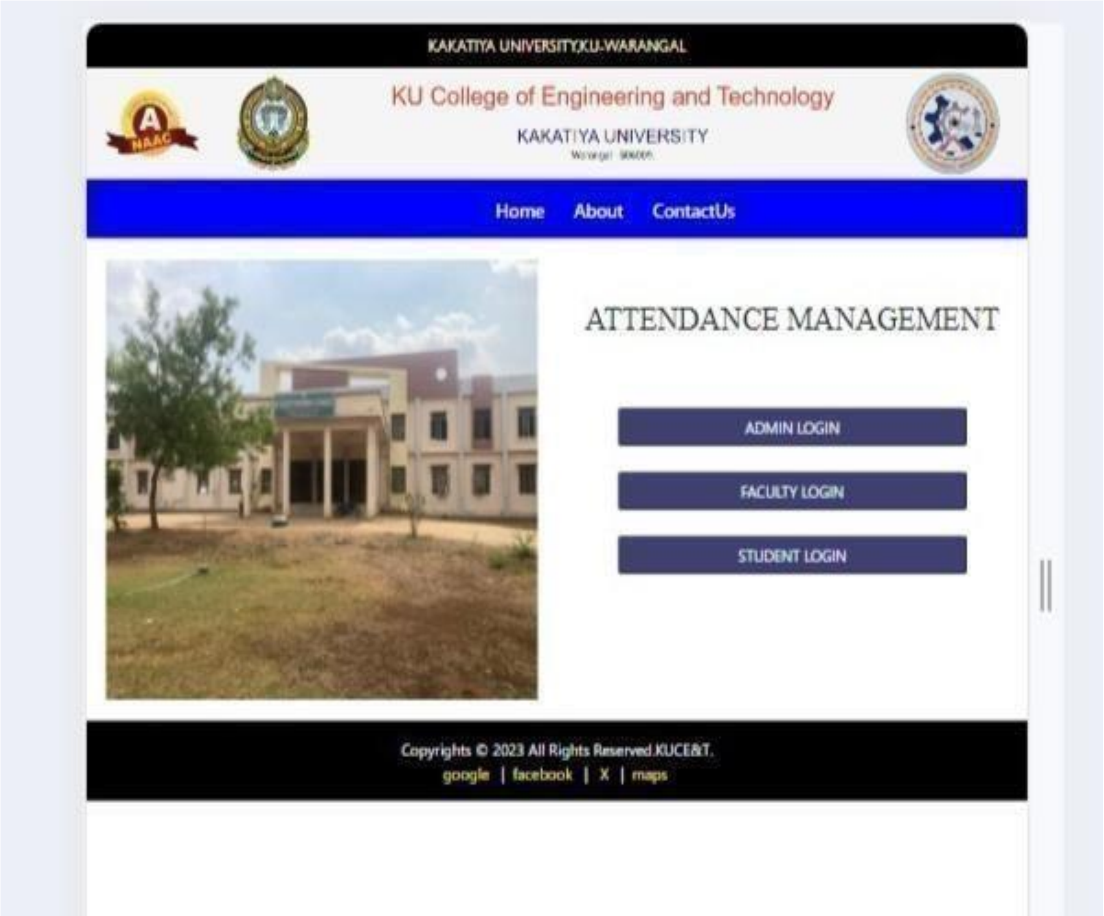
It is mainly to validate whether we are getting specified output or not based on given input parameters here we have four dropdown menus with year, branch, semester, class type and we have we have one input field to enter student roll no and one submit button.

When we enter input parameter like year, branch, semester, classtype, and student roll no then click on submit button we got details about that particular student like name, year, branch, semester, class type and the all subject belong to that year and semester with total and attended classes by student with overall all attendance percentage.

Test case result: pass

10. OUTPUT SCREENS

HOME SCREEN


KAKATIYA UNIVERSITY,KU-WARANGAL
KU College of Engineering and Technology
KAKATIYA UNIVERSITY
Warangal 506009
Home
About
ContactUs
ATTENDANCE MANAGEMENT
ADMIN LOGIN
FACULTY LOGIN
STUDENT LOGIN
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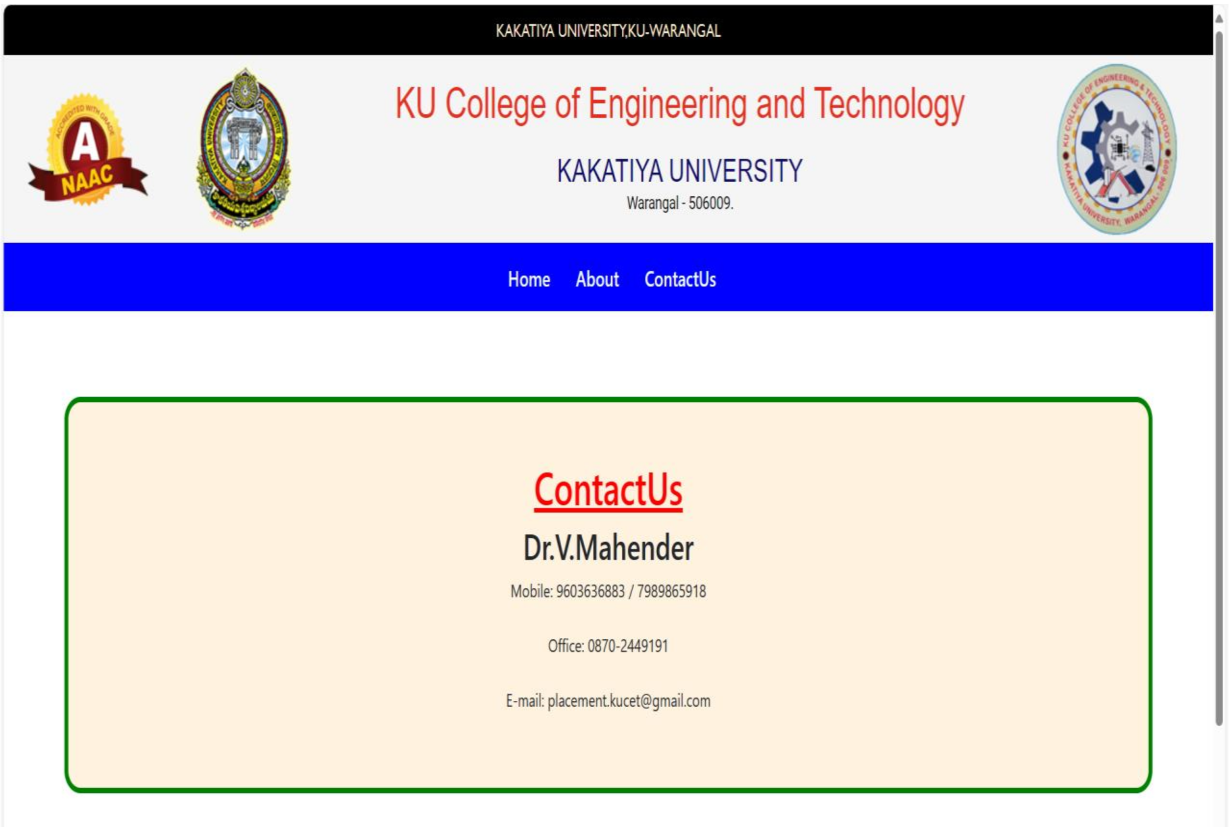
google | facebook | X | maps

The above screen is the first screen of student attendance management system project which mainly contains three fields like admin login, faculty login, and student login and in the navigation bar it contains three things like home, About, and contact us.in the footer it contains social medial accounts links of KU college like Facebook, twitter and which also contains address of college in google maps.

Whenever we click on admin login it will redirect to admin login screen and whenever we click on faculty login it will redirect to faculty login screen, finally when we click on student login it will redirect to student attendance report generation Screen.

CONTACT US SCREEN

This screen contains details about the head of the institution like mobile no, email etc.



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Warangal - 506009.
Home
About
ContactUs

ContactUs

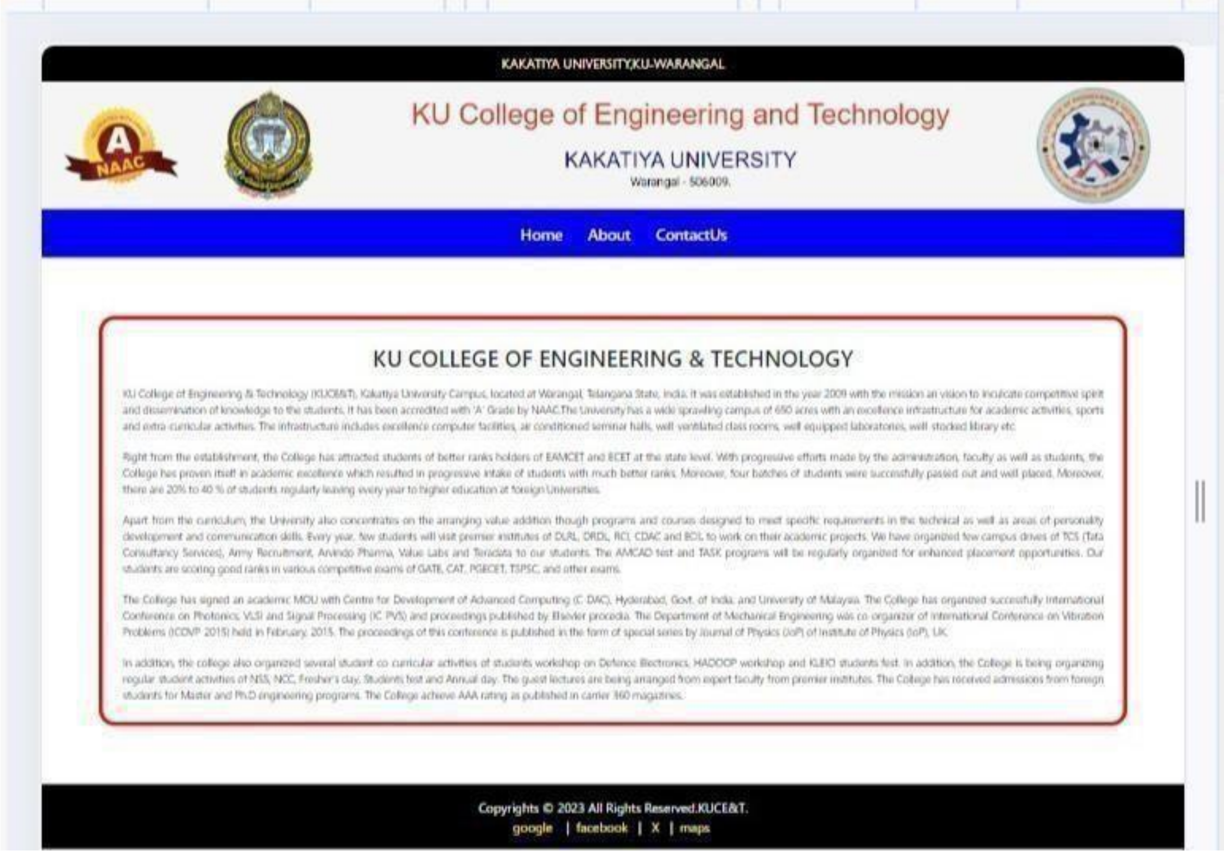
Dr.V.Mahender

Mobile: 9603636883 / 7989865918

Office: 0870-2449191

E-mail: placement.kucet@gmail.com

ABOUT SCREEN



KAKATIYA UNIVERSITY,KU-WARANGAL
KU College of Engineering and Technology
KAKATIYA UNIVERSITY
Warangal - 506009.
A
NAAC
Home
About
ContactUs

KU COLLEGE OF ENGINEERING & TECHNOLOGY

KU College of Engineering & Technology (KUCE&T), Kakatiya University Campus, located at Warangal, Telangana State, India. It was established in the year 2009 with the mission an vision to inculcate competitive spirit and dissemination of knowledge to the students. It has been accredited with 'A' Grade by NAAC.The University has a wide sprawling campus of 650 acres with an excellence infrastructure for academic activities, sports and extra curricular activities. The infrastructure includes excellence computer facilities, air conditioned seminar halls, well ventilated class rooms, well equipped laboratories, well stocked library etc.

Right from the establishment, the College has attracted students of better ranks holders of EAMCET and ECET at the state level. With progressive efforts made by the administration, faculty as well as students, the College has proven itself in academic excellence which resulted in progressive intake of students with much better ranks. Moreover, four batches of students were successfully passed out and well placed. Moreover, there are 20% to 40 % of students regularly leaving every year to higher education at foreign Universities.

Apart from the curriculum, the University also concentrates on the arranging value addition though programs and courses designed to meet specific requirements in the technical as well as areas of personality development and communication skills. Every year, few students will visit premier institutes of DLRL, DRDL, RCI, CDAC and ECIL to work on their academic projects. We have organized few campus drives of TCS (Tata Consultancy Services), Army Recruitment, Arvindo Pharma, Value Labs and Teradata to our students. The AMCAD test and TASK programs will be regularly organized for enhanced placement opportunities. Our students are scoring good ranks in various competitive exams of GATE, CAT, PGECET, TSPSC, and other exams.

The College has signed an academic MOU with Centre for Development of Advanced Computing (C DAC), Hyderabad, Govt. of India, and University of Malaysia. The College has organized successfully International Conference on Photonics, VLSI and Signal Processing (IC PVS) and proceedings published by Elsevier procedia. The Department of Mechanical Engineering was co organizer of International Conference on Vibration Problems (ICOVP 2015) held in February, 2015. The proceedings of this conference is published in the form of special series by Journal of Physics (JoP) of Institute of Physics (IoP), UK.

In addition, the college also organized several student co curricular activities of students workshop on Defence Electronics, HADOOP workshop and KLEIO students fest. In addition, the College is being organizing regular student activities of NSS, NCC, Fresher's day, Students fest and Annual day. The guest lectures are being arranged from expert faculty from premier institutes. The College has received admissions from foreign students for Master and PhD engineering programs. The College achieve AAA rating as published in carrier 360 magazines.

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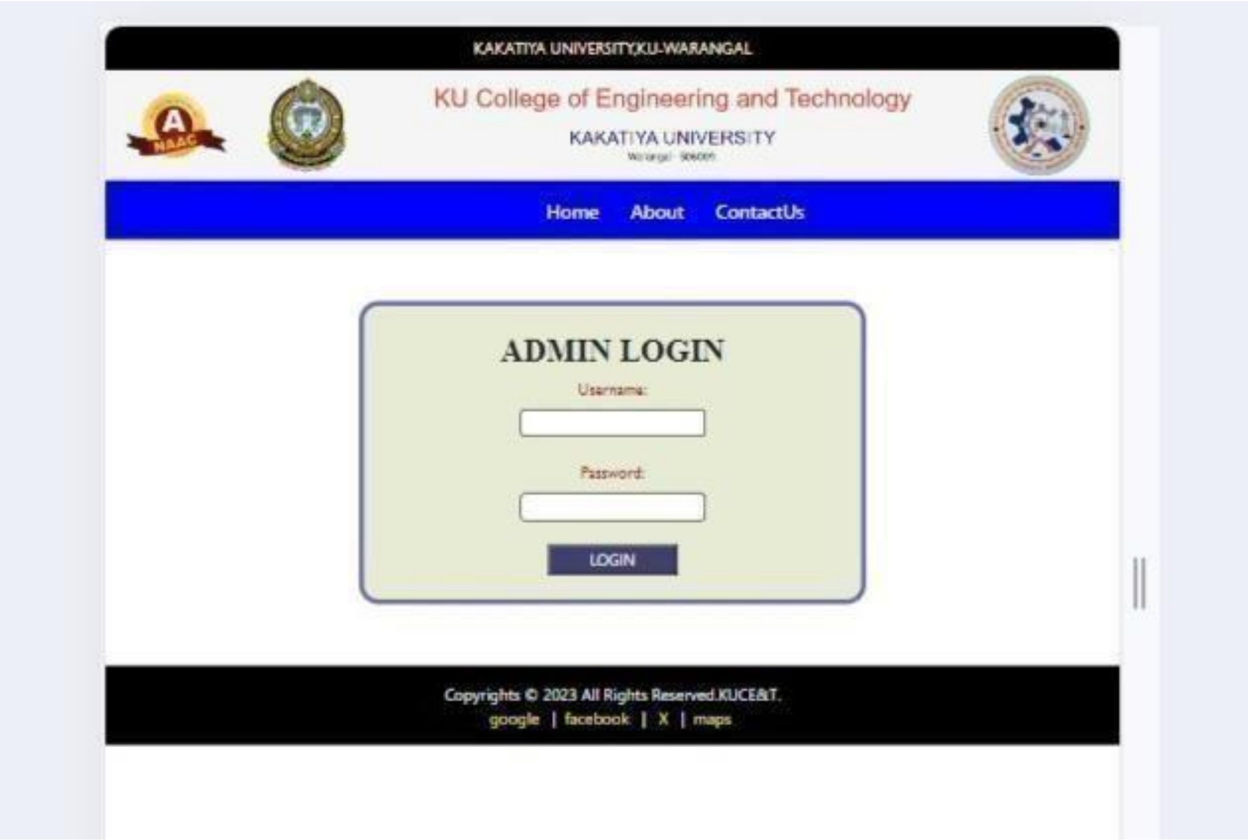
This screen contains information about the KU College of Engineering and Technology.

ADMIN LOGIN SCREEN



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ADMIN LOGIN

Username:

Password:

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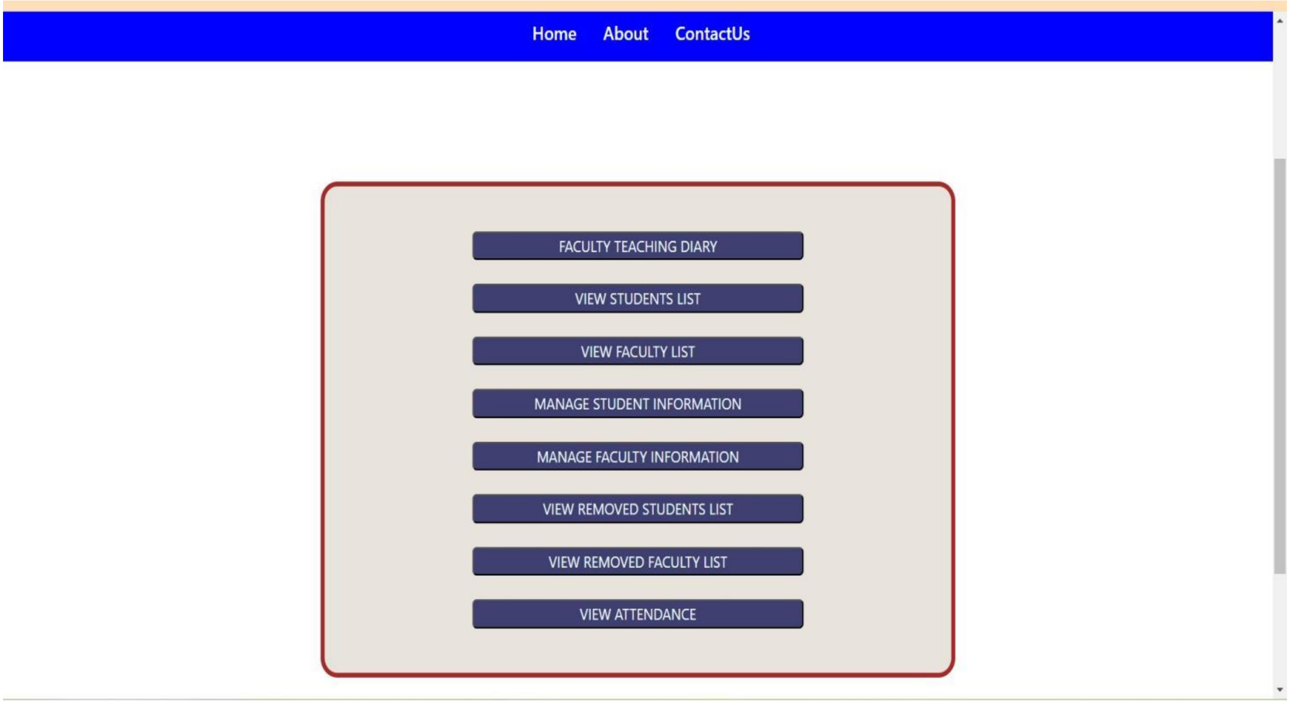
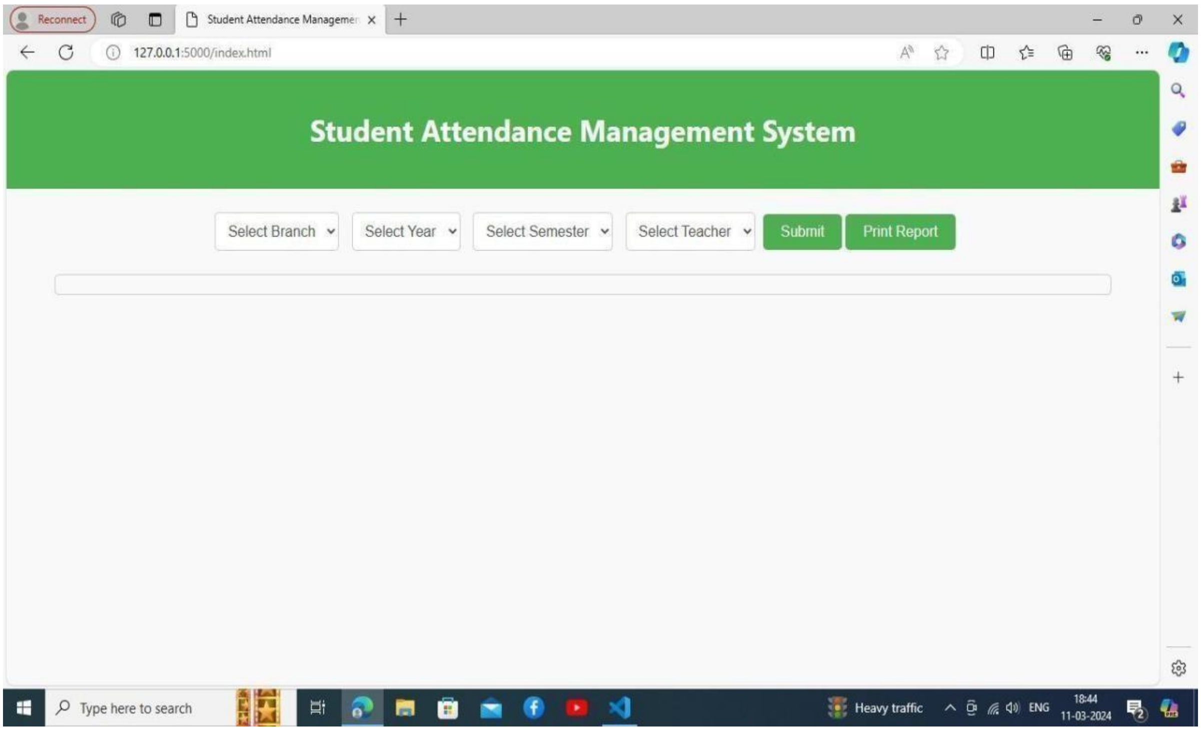
Admin login screen contains input fields like username and password when the admin enters the correct username and password then only, he will redirect to admin functionality screen.

ADMIN FUNCTIONALITY SCREEN


Home
About
ContactUs
FACULTY TEACHING DIARY
VIEW STUDENTS LIST
VIEW FACULTY LIST
MANAGE STUDENT INFORMATION
MANAGE FACULTY INFORMATION
VIEW REMOVED STUDENTS LIST
VIEW REMOVED FACULTY LIST
VIEW ATTENDANCE

This screen contains mainly functions like faculty teaching dairy, view students list, view faculty list, management of teachers and students, view removed students list, view removed teachers list and last one is View Students attendance. When we click on faculty teaching dairy then this page will redirect to reports generation of faculty screen and when we click on view attendance it will redirect to reports generation of Students screen.

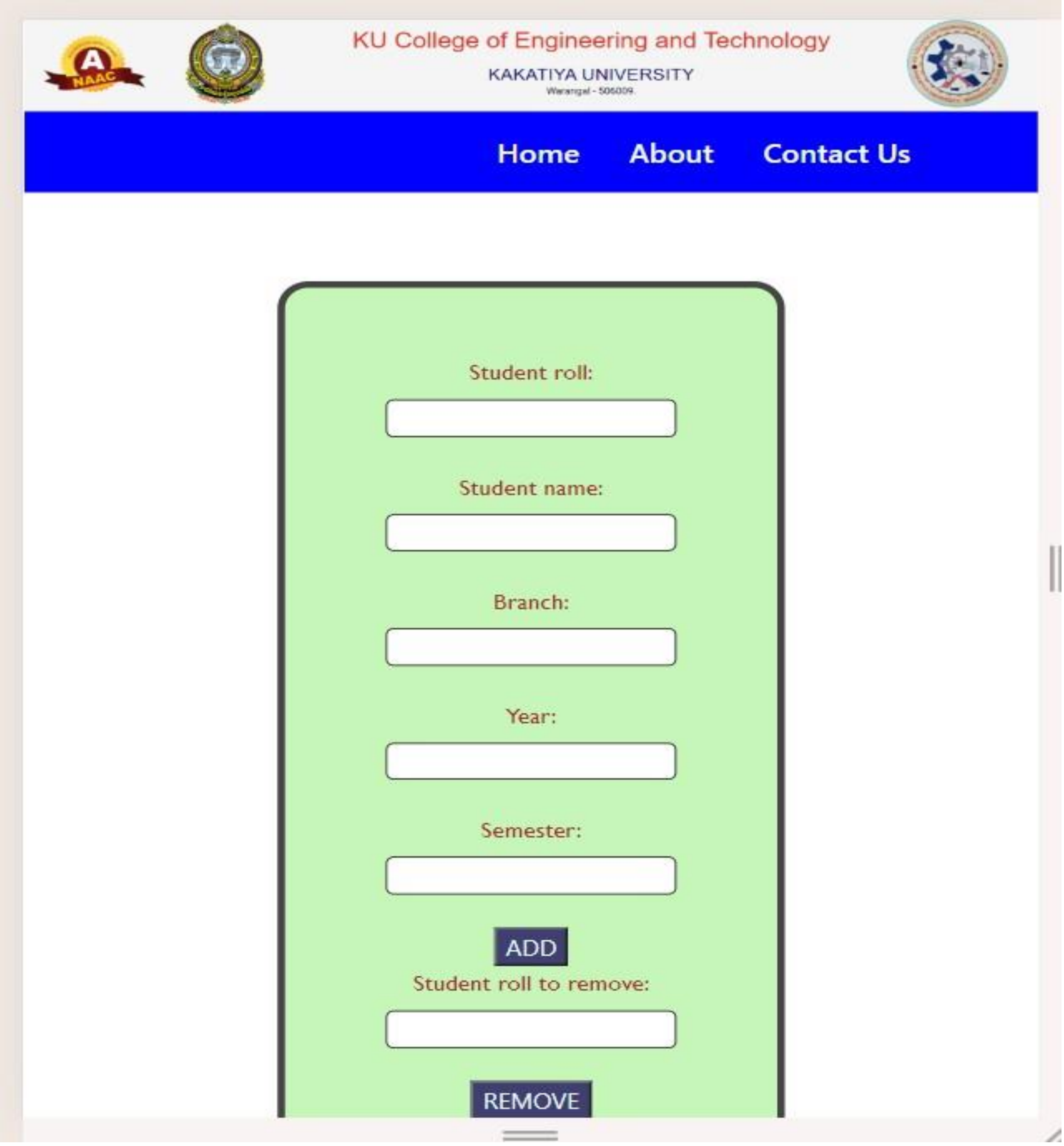
FACULTY REPORTS GENERATION SCREEN



This screen contains dropdown menus like teacher name, year, branch, semester whenever we select dropdowns as per our requirement to generate reports we can get that type of reports.

MANAGE STUDENT INFORMATION SCREEN

The below screen is used by admin to add or remove the student information like branch, year, semester, roll no, and name into the database.



KU College of Engineering and Technology
KAKATIYA UNIVERSITY
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Student roll:

Student name:

Branch:

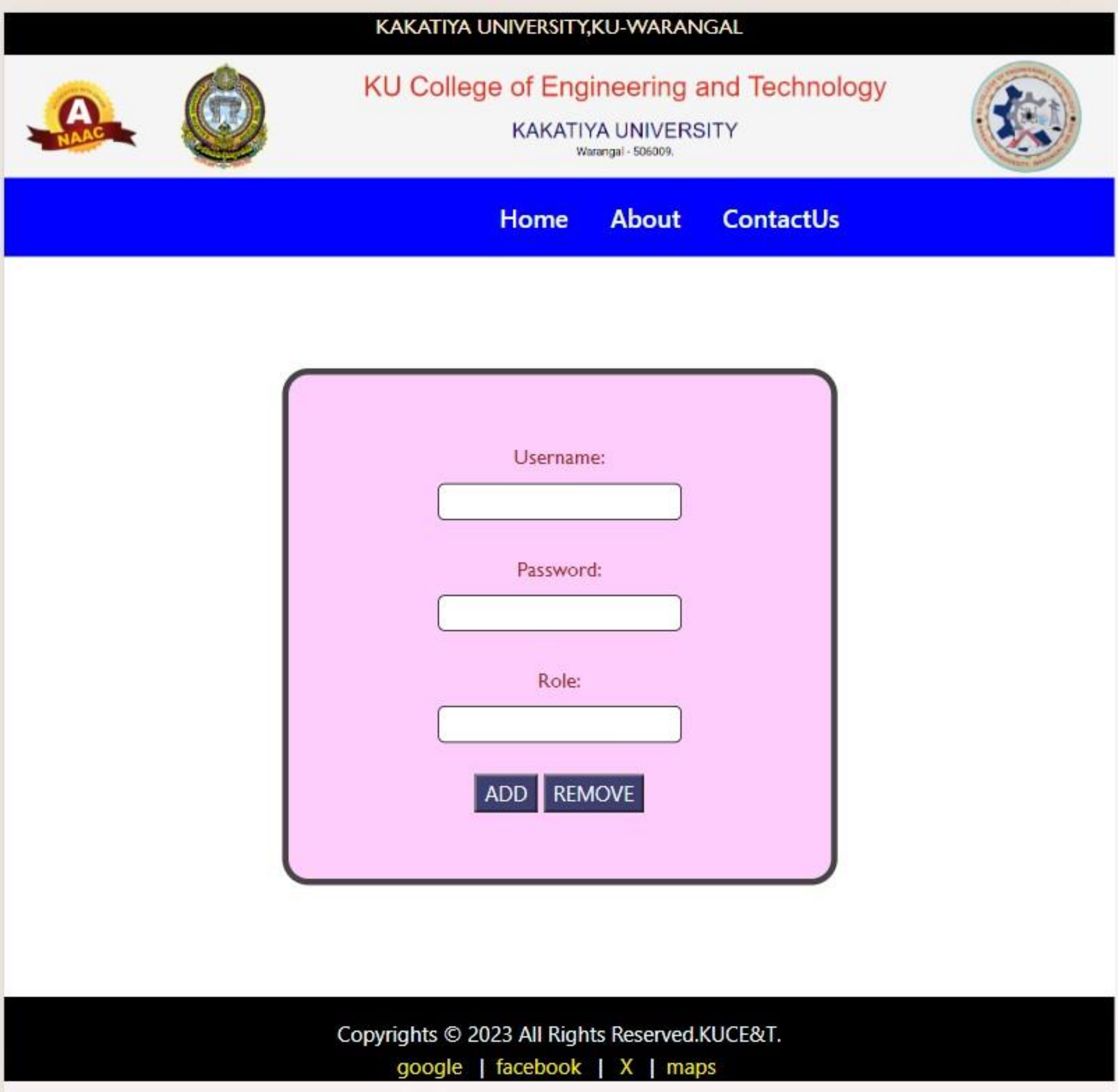
Year:

Semester:

Student roll to remove:

MANAGE FACULTY INFORMATION SCREEN

The below is used by the admin to add or remove the faculty into database with username, password, and role.



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Username:

Password:

Role:

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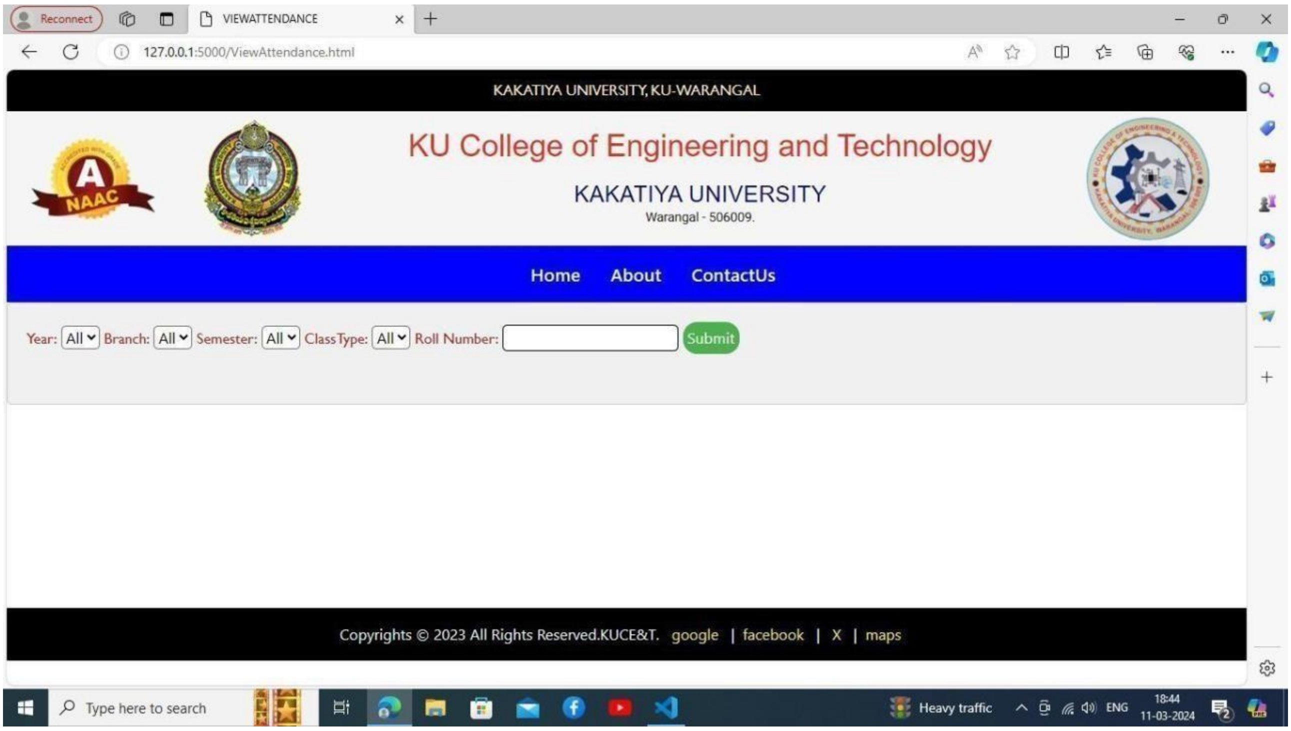
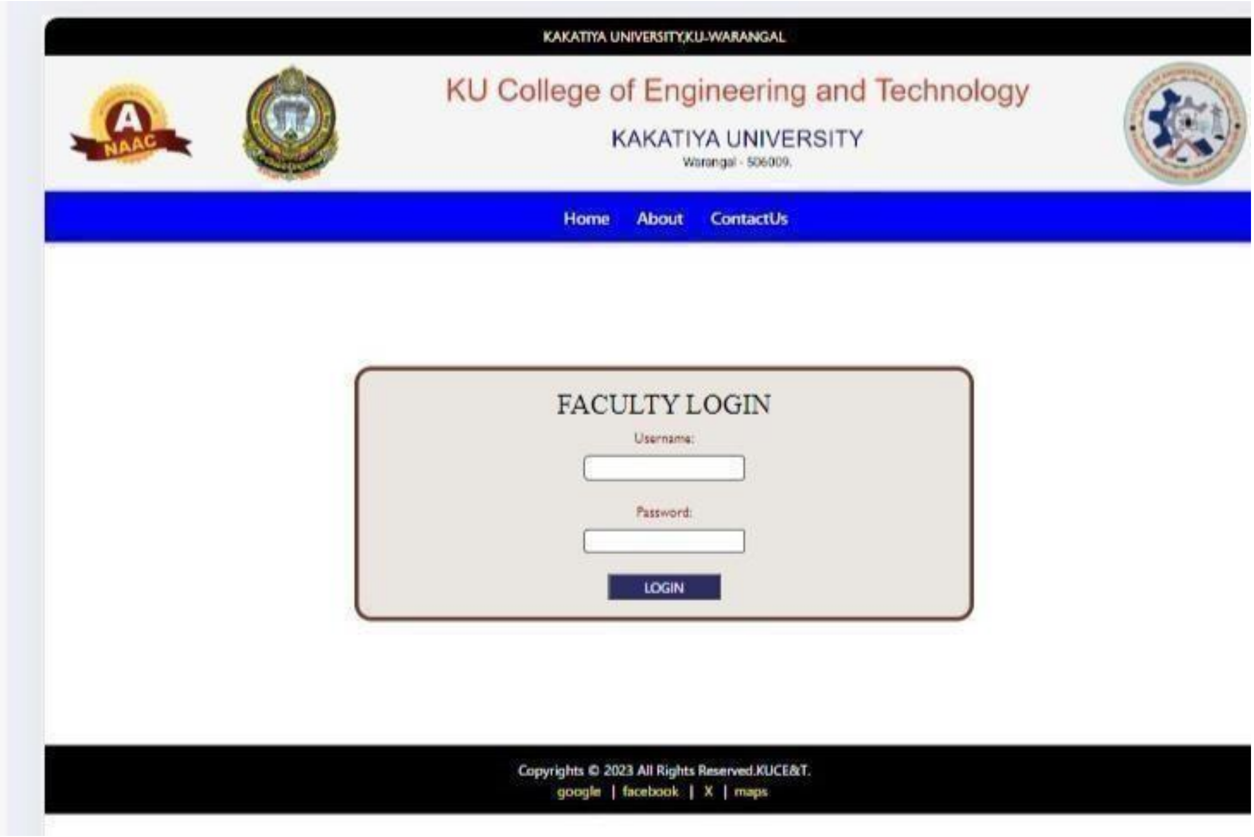
STUDENT REPORTS GENERATION SCREEN


Reconnect
VIEWATTENDANCE
127.0.0.1:5000/ViewAttendance.html
KAKATIYA UNIVERSITY, KU-WARANGAL
KU College of Engineering and Technology
KAKATIYA UNIVERSITY
Warangal - 506009.
Home
About
ContactUs
Submit
Copyrights © 2023 All Rights Reserved.KUCE&T. google | facebook | X | maps
Type here to search
Heavy traffic
ENG
18:44
11-03-2024

Year: All Branch: All Semester: All ClassType: All Roll Number:

This screen contains one input filed like student roll no whenever we enter that roll no we are going to get student attendance reports in each subject and percentage of their attendance also.

FACULTY LOGIN SCREEN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About
ContactUs
FACULTY LOGIN
Username:
Password:
LOGIN
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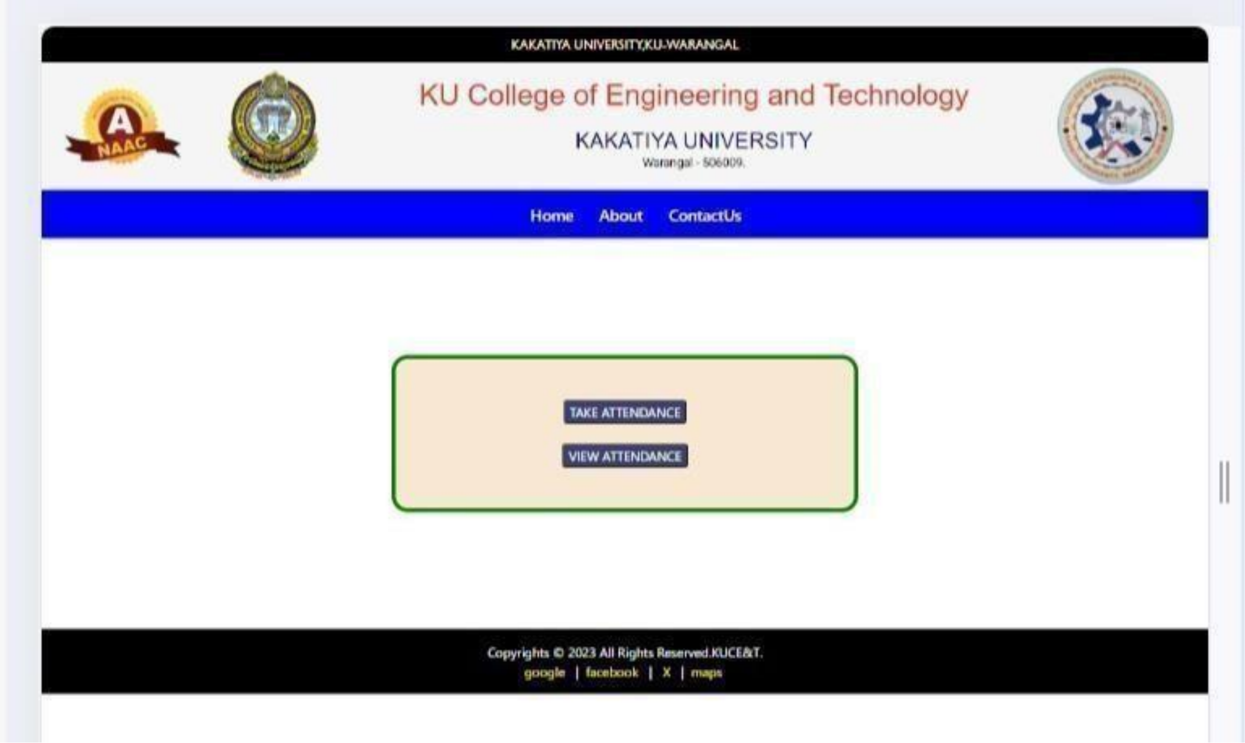
google | facebook | X | maps

Same as admin login screen we have faculty login screen whenever the faculty enters the correct username and password which are provide then only, he/she can redirect to another page that is faculty functionality screen.

FACULTY FUNCTIONALITY SCREEN



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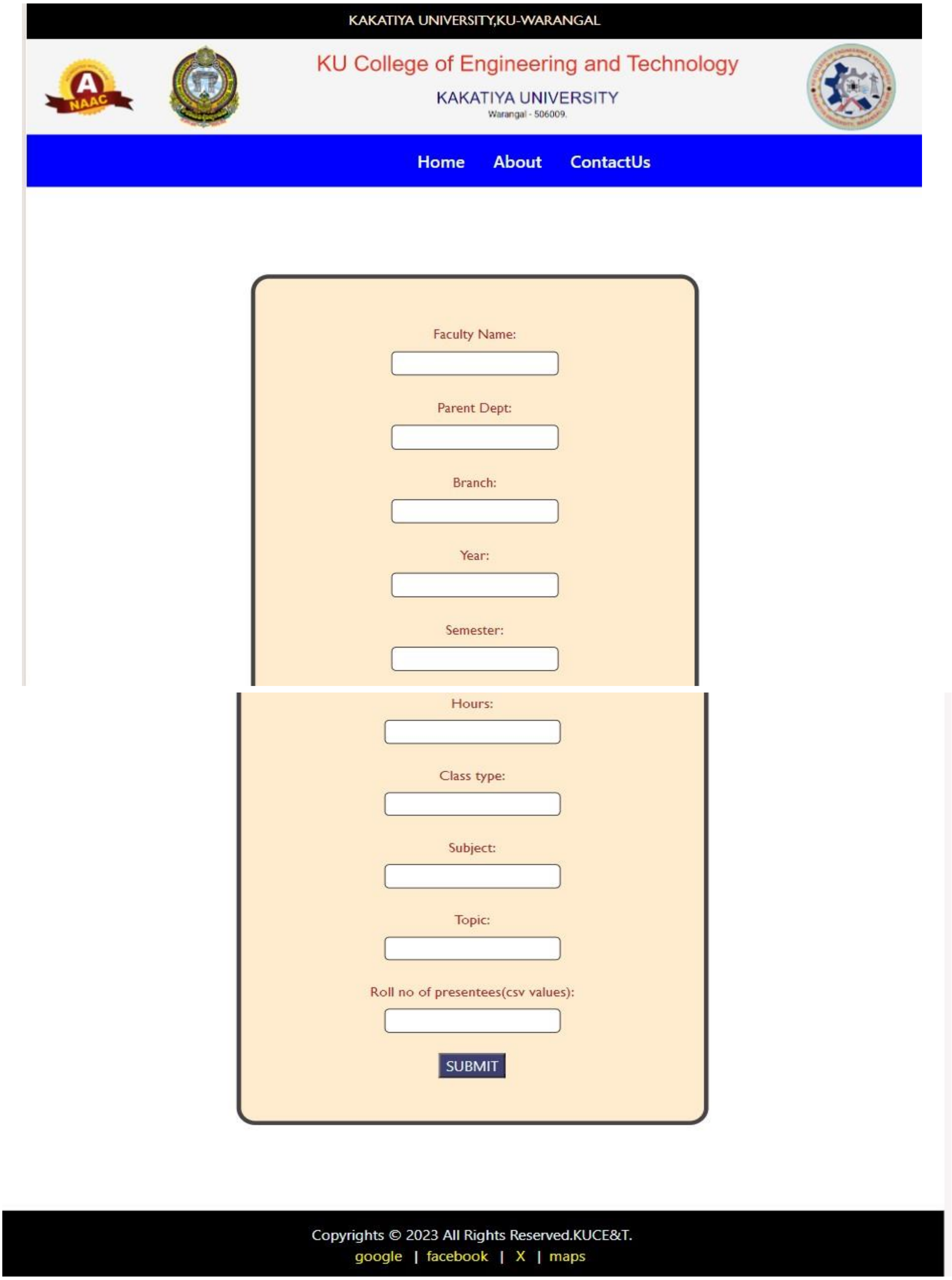
After successful login the faculty can redirect to this page which contains fields like take attendance and view attendance, whenever he/she clicks on view attendance it will redirect to student reports generation screen. when faculty click on take attendance button, he/she will redirect to attendance from screen as below.

ATTENDANCE FORM SCREEN



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Faculty Name:

Parent Dept:

Branch:

Year:

Semester:

Hours:

Class type:

Subject:

Topic:

Roll no of presentees(csv values):

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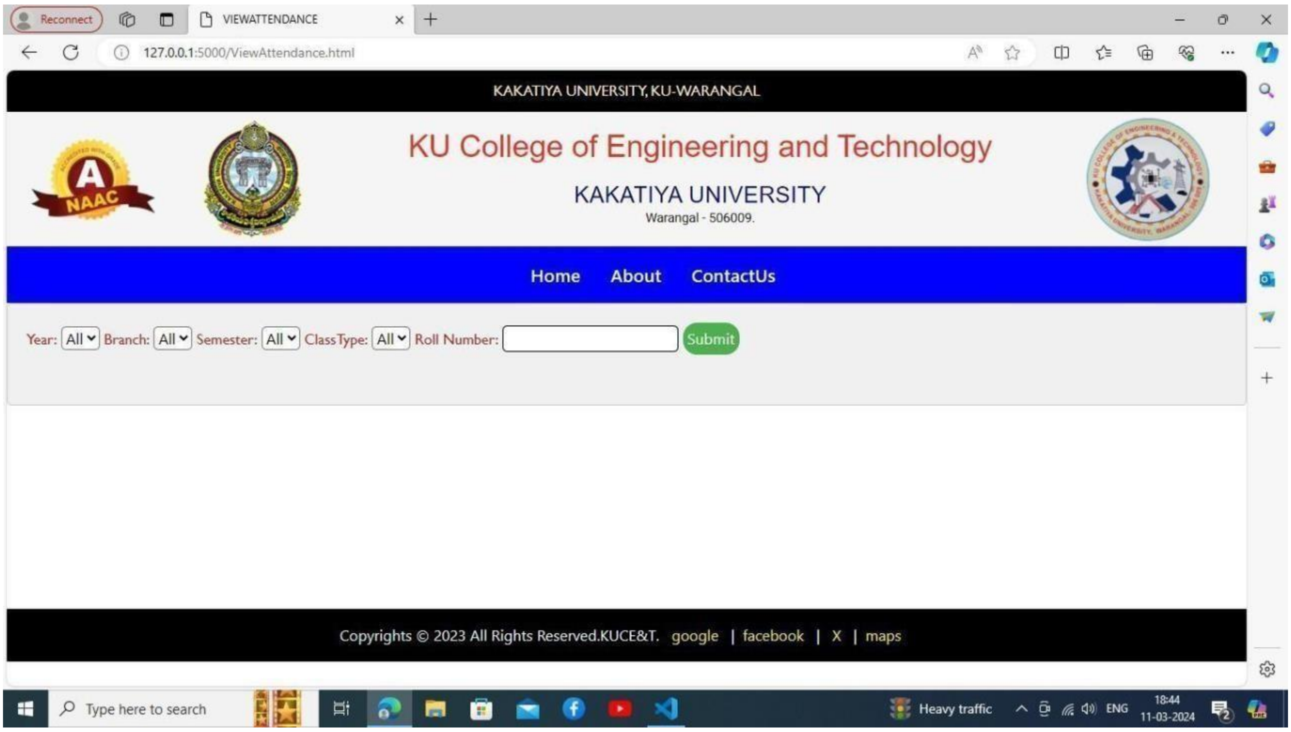
This screen contains input fields like teacher id, teacher name, year, branch, semester, subject name, topic, time, duration, and students presents (which can take csv values). By entering all the above details that are store in database which are helpful to generate the students and faculty reports generations.

STUDENT LOGIN SCREEN



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Year: All Branch: All Semester: All ClassType: All Roll Number:

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The student login screen contains drop downs like year, branch, semester, class type, and one input field are student roll number when the student selects all the required values, he/she will get his/her attendance in each subject with percentage.