Smart Academy

Project Report Submitted by

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AMAL JYOTHI COLLEGE OF ENGINEERING
KANJIRAPPALLY

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2022-2023

DEPARTMENT OF COMPUTER APPLICATIONS

AMAL JYOTHI COLLEGE OF ENGINEERING

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CERTIFICATE

This is to certify that the Project report, "**Smart Academy"** is the bona-fide work of **JERIL K JOLLY (Regno: AJC00MCA-I035)** in partial fulfillment of the requirements for the award of the Degree of Integrated Master of Computer Applications under APJ Abdul Kalam Technological University during the year 2022-23.

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DECLARATION

I hereby declare that the project report **"SMART ACADEMY"** is a bonafide work done at Amal Jyothi College of Engineering, towards the partial fulfilment of the requirements for the award of the Master of Computer Applications (MCA) from APJ Abdul Kalam Technological University, during the academic year 2022-2023.

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JERIL K JOLLY

ABSTRACT

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College management system helps to manage student, teachers profile.
Student profile helps in managing marks, attendance and courses to facilitate various academic activities which is made accountable to HOD,teachers,Parents and students.

The present system manages manual entry of attendance, the hurdle attached taking the attendance manually each by respective staff members and maintaining a hard copy record, later entering it to the system is tedious and error prone affair.

The proposed system uses the mechanism of RFID to mark attendance.
The Proposed system has 3 users which include HOD,teacher and students

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List of Abbreviation

IDE	-	Integrated Development Environment
HTML	-	Hyper Text Markup Language.
CSS	-	Cascading Style Sheet
SQL	-	Structured Query Language
UML	-	Unified Modelling Language
RFID	-	Radio Frequency Identification

CHAPTER 1

INTRODUCTION

1.1 PROJECT OVERVIEW

College Management System deals with all kind of student details, academic related reports, college details, course details, curriculum, batch details and other resource related details too. It tracks all the details of a student from the day one to the end of his course which can be used for all reporting purpose, tracking of attendance, progress in the course, completed semesters years, coming semester year curriculum details, exam details, project or any other assignment details, final exam result; and all these will be available for future references too.Our program will have the databases of Courses offered by the college under all levels of graduation or main streams, teacher or faculty's details, batch execution details, students' details in all aspects.This program can facilitate us explore all the activities happening in the college, even we can get to know which teacher / faculty is assigned to which batch, the current status of a batch, attendance percentage of a batch and upcoming requirements of a batch. Different reports and Queries can be generated based of vast options related to students, batch, course, teacher / faculty, exams, semesters, certification and even for the entire college

1.2 PROJECT SPECIFICATION

The College Management System deals with all types of student information**,** academic reports, college information, course information, curriculum, batch information, and other resource information as well. It keeps track of a student's information from the first day of class until the end of the course, and can be used for reporting purposes, tracking attendance, progress in the class, information about completed semesters, information about the upcoming semester's curriculum, information about exams, information about projects or other assignments, and information about final exam results. Our programme will include databases of the courses the institution offers at each level of graduation or main stream, as well as information about the teachers or faculty, batch execution details, and students' details in all areas**.**

CHAPTER 2

SYSTEM STUDY

2.1 INTRODUCTION

College Management System “Smart Academy” is user Friendly software which is fast andcost effective.It provides services like attendance and mark registery,teacher and student management.

Main function of this system is automated entry of attendance and directly entering to database without any manual entering which may lead to error

2.2 EXISTING SYSTEM

The present system manages manual entry of attendance, the hurdle attachedtaking the attendance manually each by respective staff members and maintaining a hard copy record, later entering it to the system is tedious and errorprone affair.Information may get lost through transaction to database doing it manually

2.3 DRAWBACKS OF EXISTING SYSTEM

- Manual entry of Attendance.
- Not much of User Friendly

2.4 PROPOSED SYSTEM

Smart Academy” is user Friendly software which is fast and cost effective.It provides services like attendance and mark registery,teacher and student management.

Main function of this system is automated entry of attendance and directly entering todatabase without any manual entering which may lead to error

2.5 ADVANTAGES OF PROPOSED SYSTEM

- Automated Entry Of Attendance
- More User Friendly

CHAPTER 3

REQUIREMENT ANALYSIS

3 .1 FEASIBILITY STUDY

Involves analyzing the project’s viability and presenting a business proposal that includes a very broad project plan and some cost projections.The feasibility assessmentfor suggested system must be completed during system analysis.This is done to make sure the system is not financial burden for business.

3.1.1 Economical Feasibility

This study is being conducted to determine system’s & organizations potentinal economic effects. The organization is only able to invest certain amount ofmoney in system’s research & development. The expenses must be maintained, because majority of technologies were freely available, the produced system developed under budget.

The following are some of the important financial questions asked during preliminary investigation:

➢ The costs conduct a full system investigation.

➢ The cost of the hardware and software.

➢ The benefits in the form of reduced costs or fewer costly errors.

The proposed system is developed as part of project work, there is no manual cost to spend for the proposed system. Also all the resources are already available, it give an indication of the system is economically possible for development.

3.1.2 Technical Feasiblity

Frontend :- HTML, CSS, JavaScript for responsive website.

Backend: - PHP & MySQL as the backend technology.

3.1.3 Behavioral Feasibility

The proposed system includes the following questions:

➢ Is there sufficient support for the users?

➢ Will the proposed system cause harm?

The project would be beneficial because it satisfies the objectives when developed and installed. All behavioral aspects are considered carefully and conclude that the project is behaviorally feasible. The technique used to inform & familiar user with website are the factors that affect thelevel of acceptance of technology by users. As the final user, his confidence must be increased, so he may offer some feedback, which is helpful & encouraged.

3.1 SYSTEM SPECIFICATION

3.1.1 Hardware Specification

Processor	- intel Core i7 10th gen
RAM	- 8 G B
Hard disk	- 1 T B

3.1.2 Software Specification

Front End	-	HTML, CSS
Backend	-	MYSQL
Client on PC	-	Windows 7 and above.
Technologies used	-	JS, HTML5, AJAX, J Query, PHP, CSS

3.2 SOFTWARE DESCRIPTION

3.2.1 PHP

A general-purpose programming language designed specifically for web development is PHP. Rasmus Lerdorf, a Danish-Canadian programmer, first developed it in 1993. The PHP Group currently creates the PHP reference implementation. Personal Home Page was the first meaning of PHP, however it is now used to refer to the recursive initialism. Hypertext Preprocessor, or PHP.

3.2.2 MySQL

A relational database arranges information into one or even more data tables where the data may be connected to one another; these relations aid in the data's structure. SQL is a language used by programmers to build, change, and retrieve data from relational databases as well as manage user access to the databases. An RDBMS, such as MySQL, works with an operating system to construct a database system in a computer's storage solution, manages users, permits network access, and makes it easier to evaluate database integrity and create backups.

CHAPTER 4

SYSTEM DESIGN

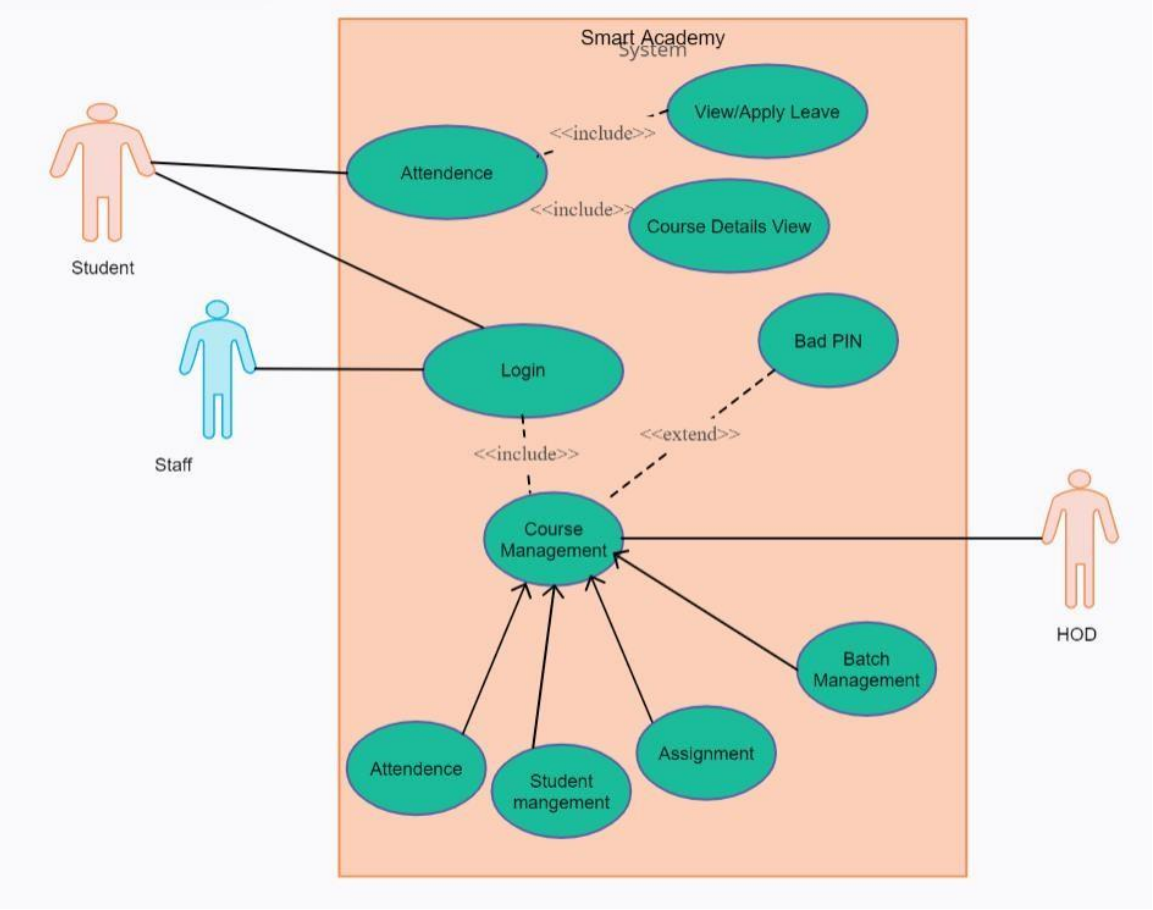
4.1 INTRODUCTION

Systems design is the process of defining elements of a system like modules, architecture, components and their interfaces and data for a system based on the specified requirements.

4.2 UML DIAGRAM

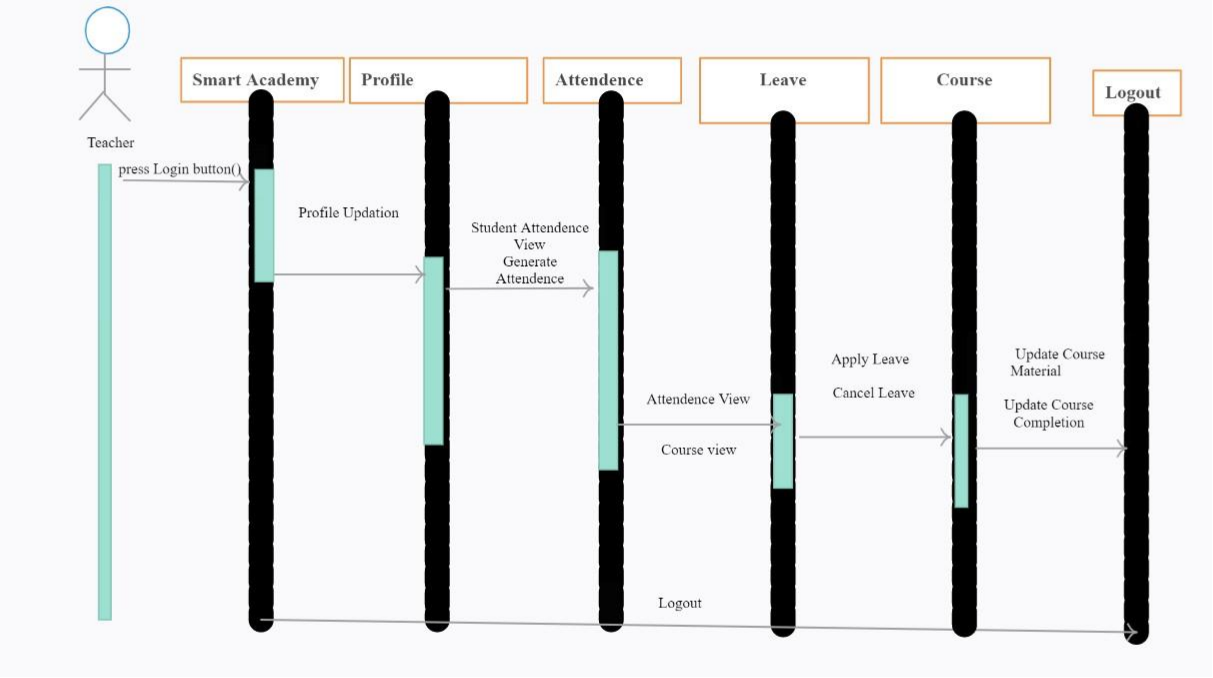
4.2.1 USE CASE DIAGRAM

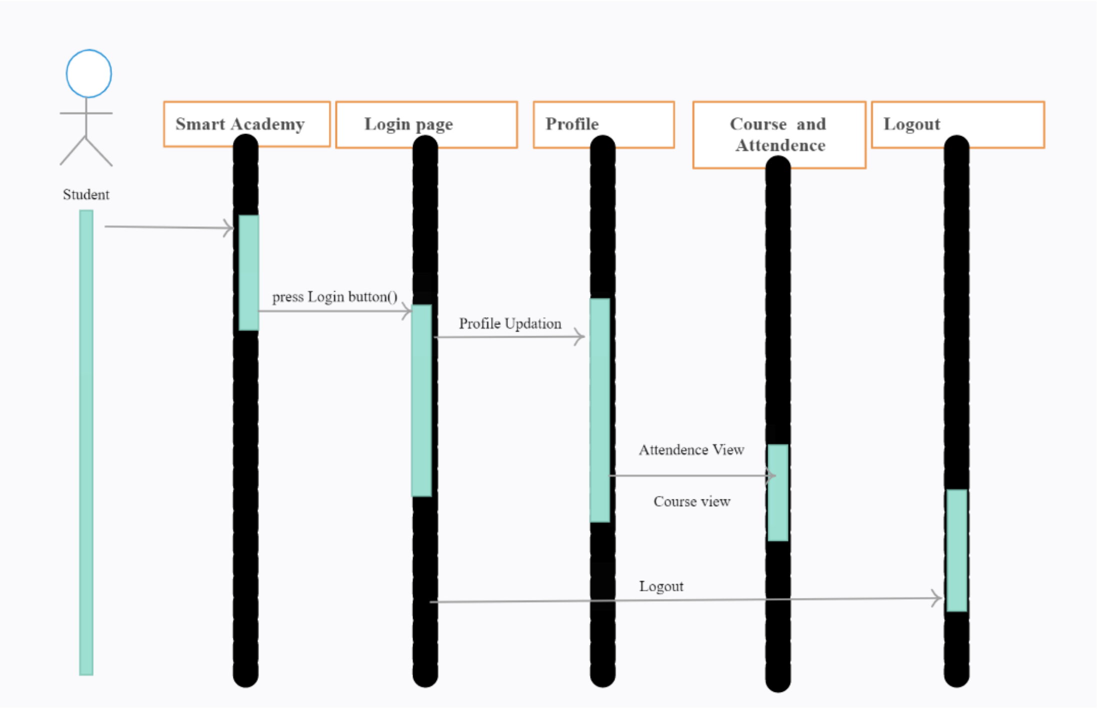
The use case diagram are usually referred to as behavior diagram used to describe the actions of all user in a system. All user describe in use case are actors and the functionality as action of system.



4.2.1 SEQUENCE DIAGRAM

Sequence diagrams, commonly used by developers, model the interactions between objects in a single use case. They illustrate how the different parts of a system interact with each other to carry out a function, and the order in which the interactions occur when a particular use case is executed.

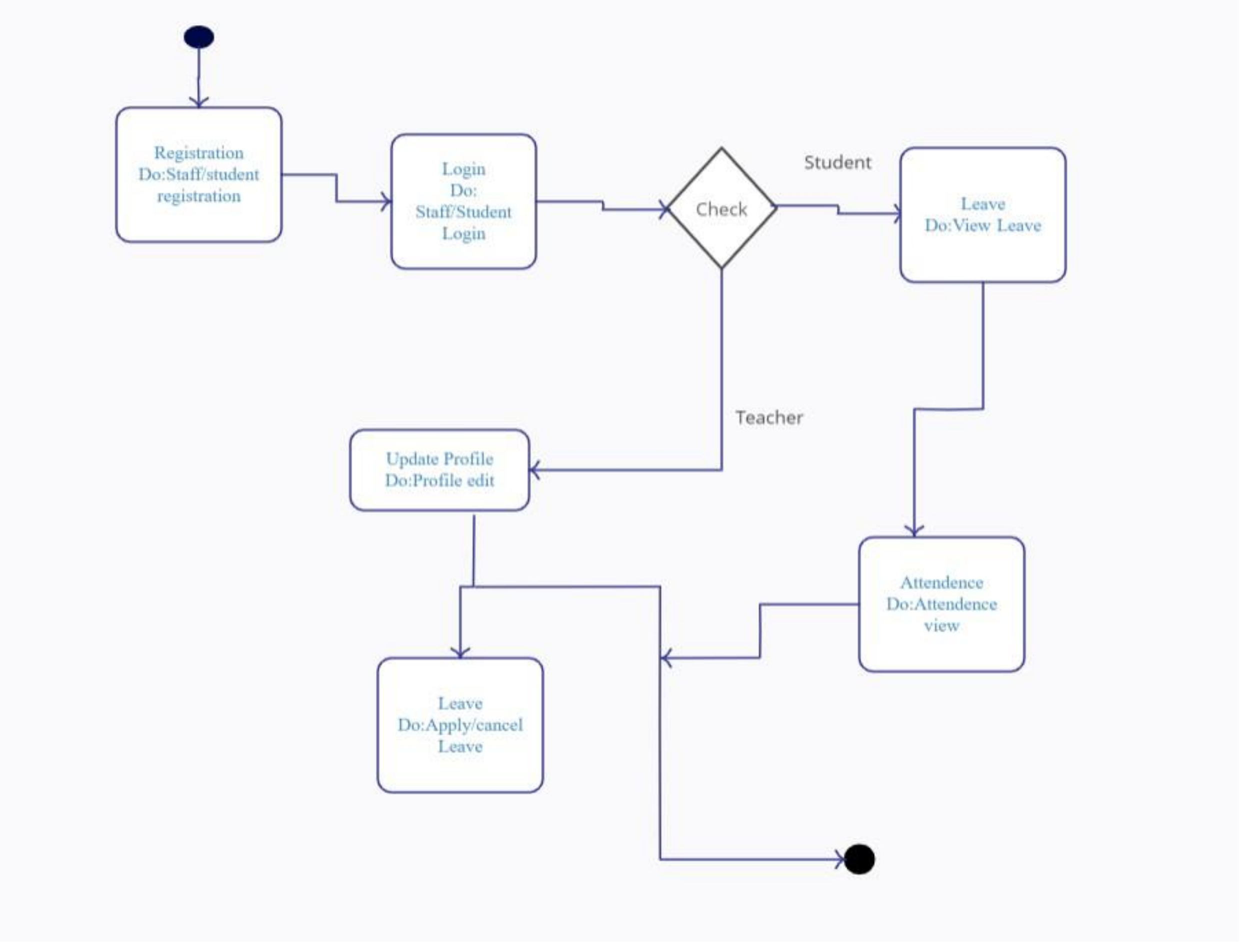




4.2.2 State Chart Diagram

Statechart diagram is used to describe the states of different objects in its life cycle. Emphasis is placed on the state changes upon some internal or external events. These states of objects are important to analyze and implement them accurately.

Statechart diagrams are very important for describing the states. States can be identified as the condition of objects when a particular event occurs.



4.2.3 Activity Diagram

An activity diagram visually presents a series of actions or flow of control in a system similar to a flowchart or a data flow diagram. Activity diagrams are often used in business process modeling. They can also describe the steps in a use case diagram

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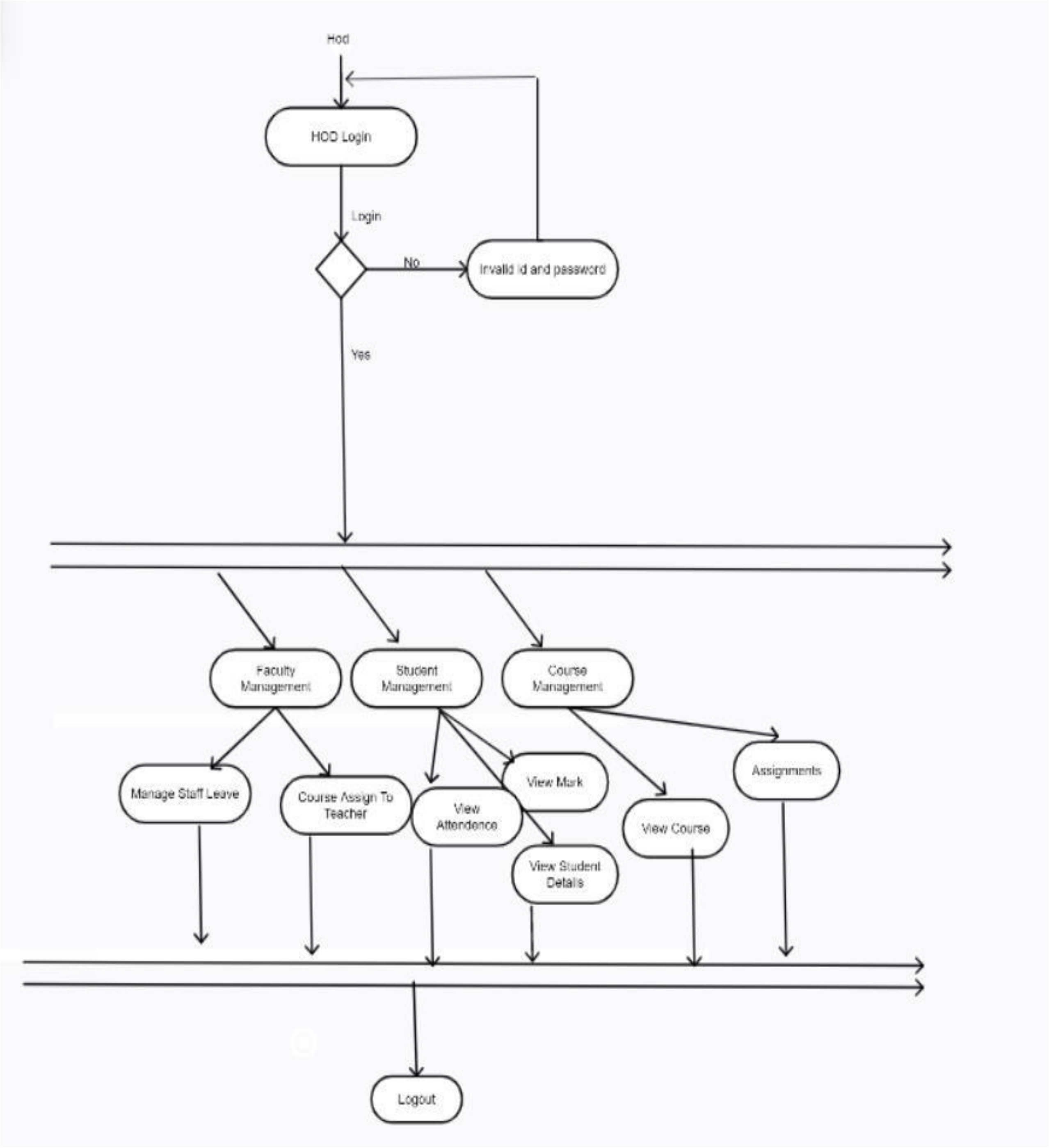
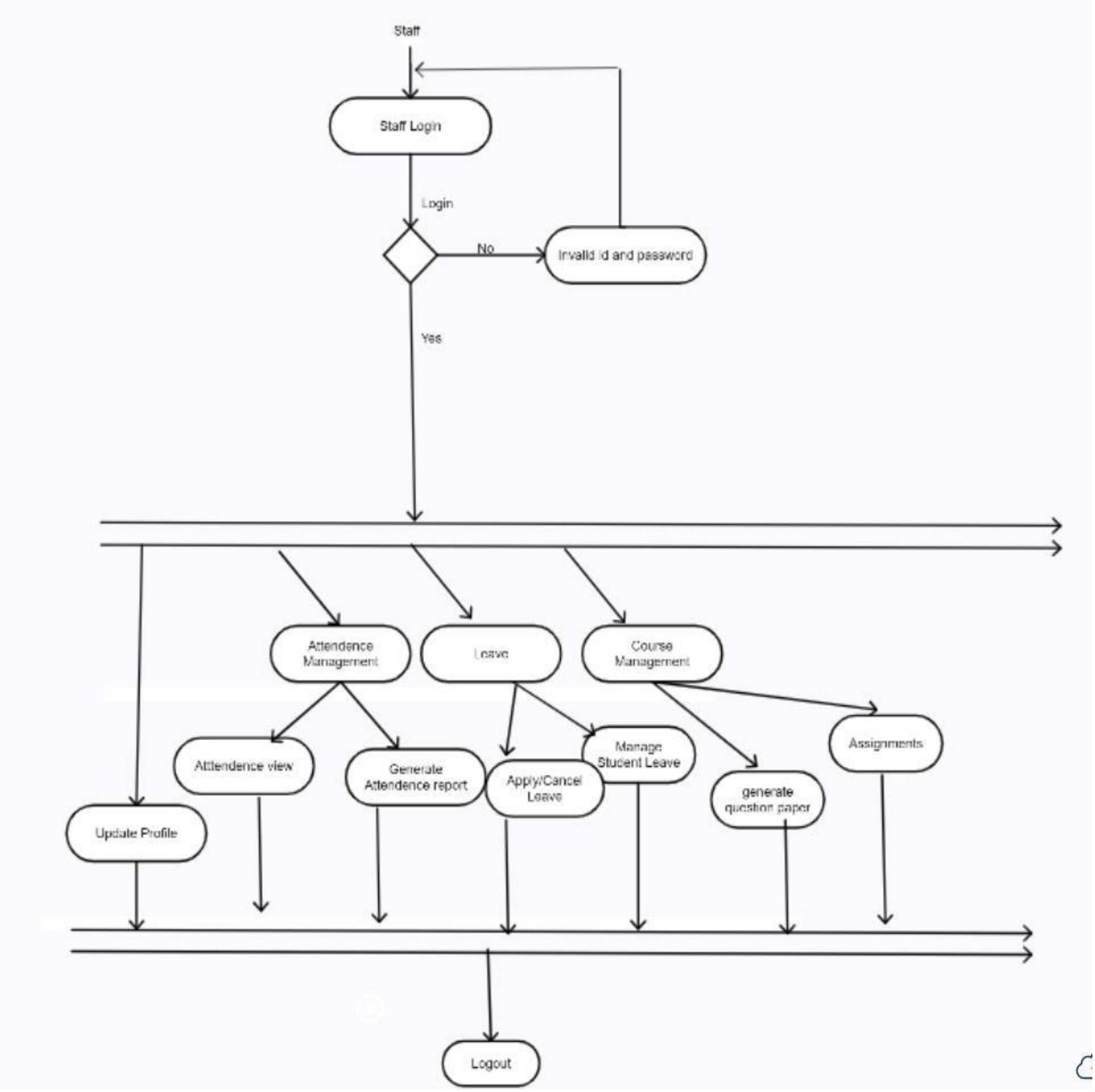
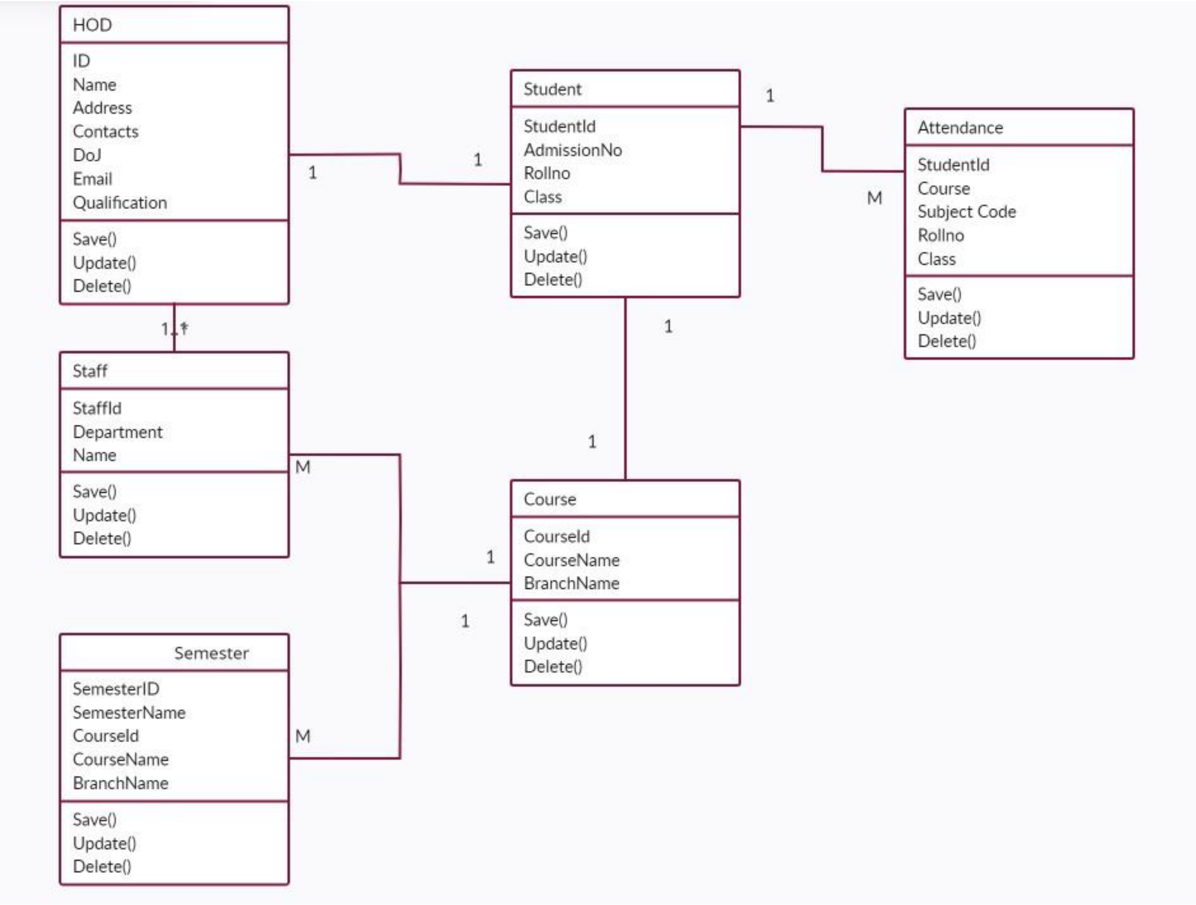



Staff
Staff Login
Login
No
Invalid id and password
Yes
Attendence Management
Leave
Course Management
Attendence view
Generate Attendence report
Apply/Cancel Leave
Manage Student Leave
generate question paper
Assignments
Update Profile
Logout

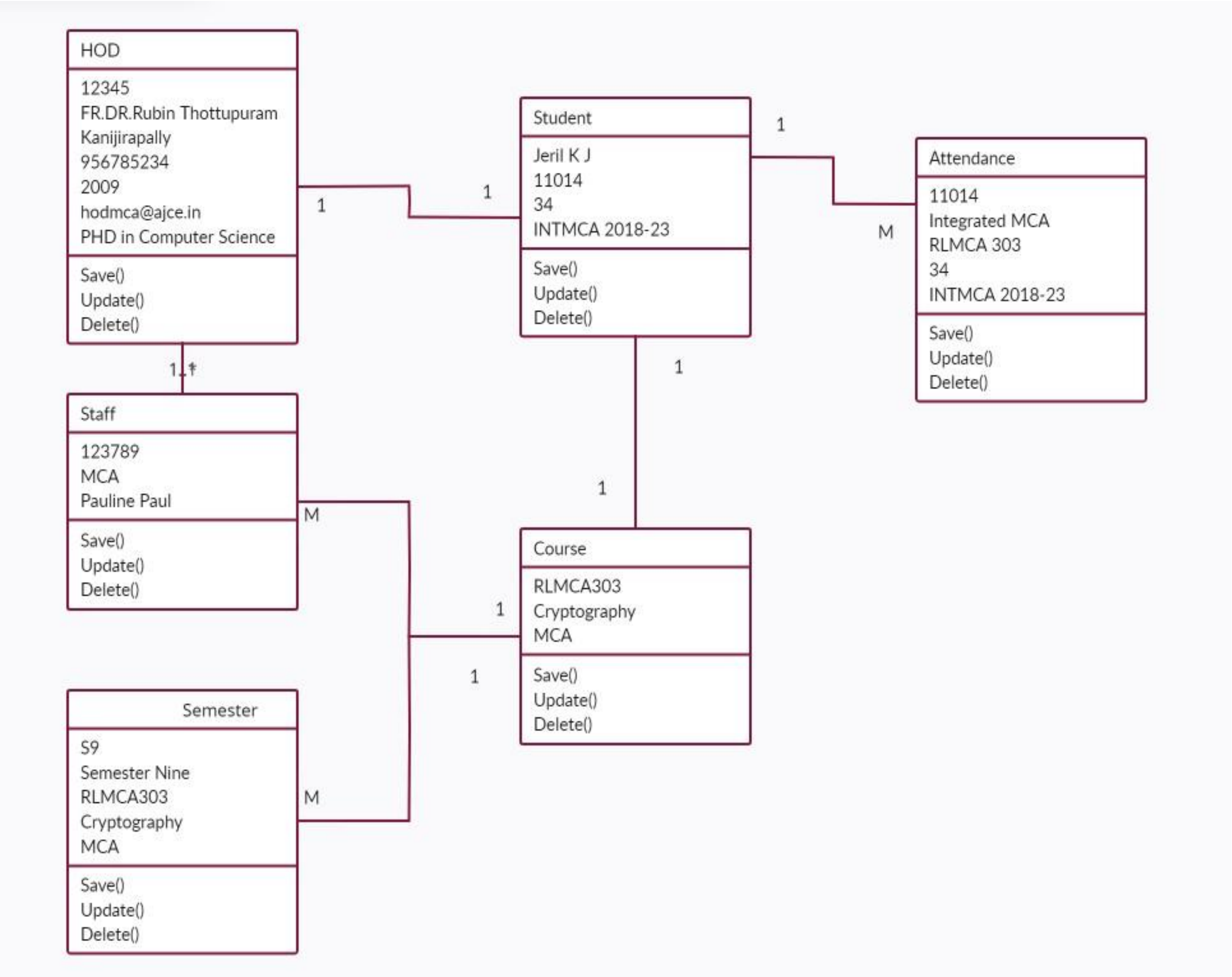
4.2.4 Class Diagram

Class diagrams are the blueprints of your system or subsystem. You can use class diagrams to model the objects that make up the system, to display the relationships between the objects, and todescribe what those objects do and the services that they provide.



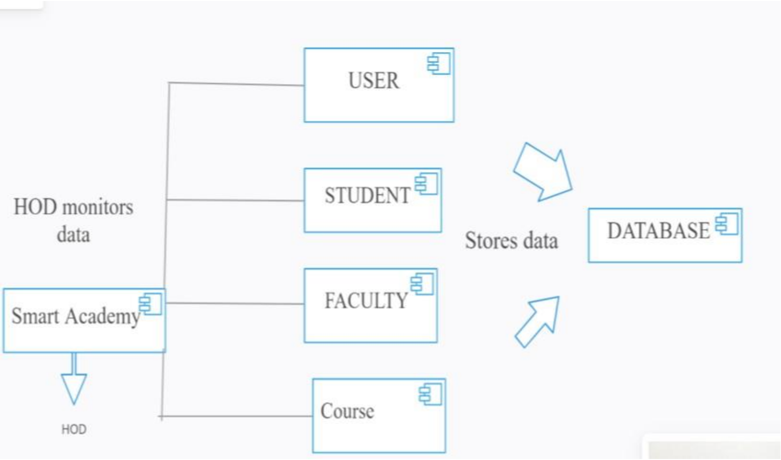
4.2.5 Object Diagram

A UML object diagram represents a specific instance of a class diagram at a certain moment in time. When represented visually, you'll see many similarities to the class diagram. An object diagram focuses on the attributes of a set of objects and how those objects relate to each other.



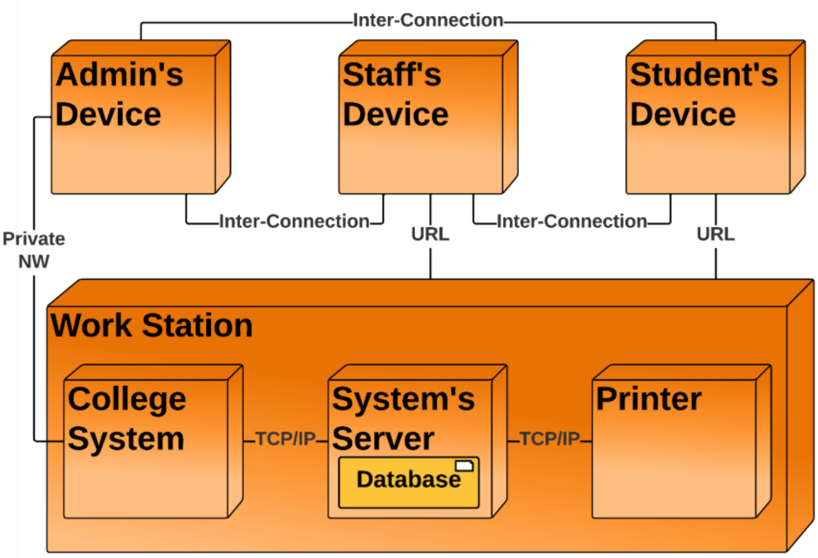
4.2.6 Component Diagram

The purpose of a component diagram is to show the relationship between differentcomponents in a system. For the purpose of UML 2.0, the term "component" refers to a module of classes that represent independent systems or subsystems with the ability to interface with the rest of the system.



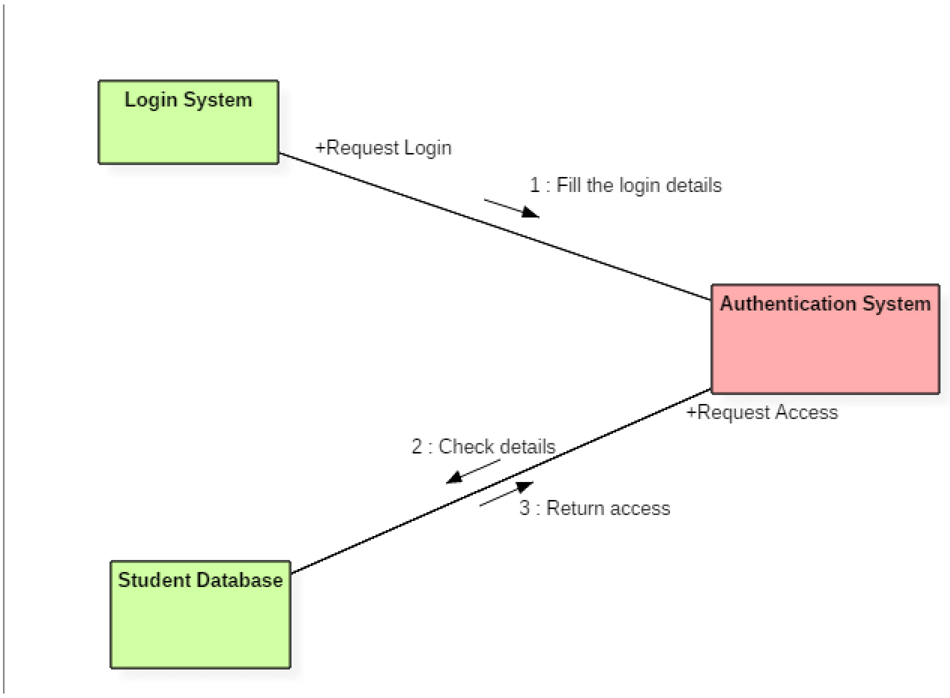
4.2.8 Deployment Diagram

In UML, deployment diagrams model the physical architecture of a system. Deployment diagrams show the relationships between the software and hardware components in the system and the phycal distribution of the processing.



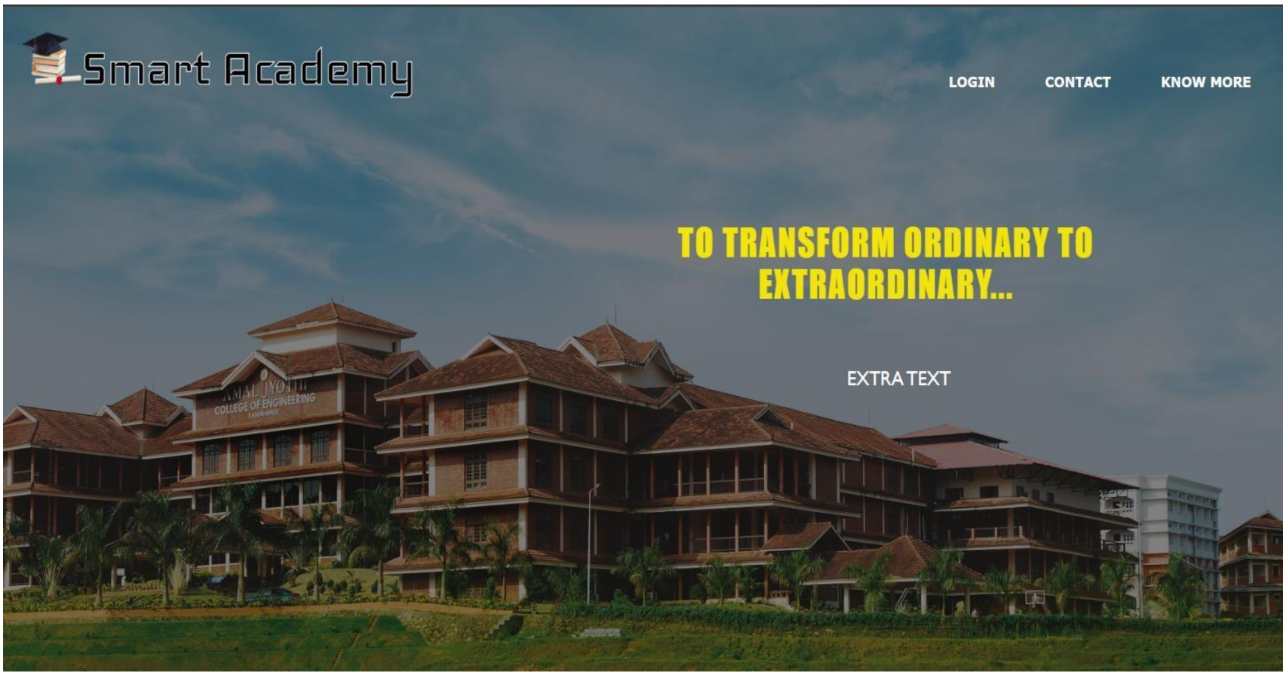
4.2.9 Collaboration Diagram

A collaboration diagram, also known as a communication diagram, is an illustration of the relationshipsand interactions among software objects in the Unified Modeling Language (UML).

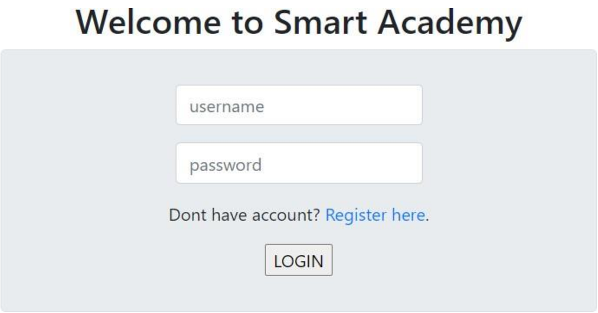


4.3 USER INTERFACE DESIGN USING FIGMA

Form Name : Home Page



Form Name : Login Page



Welcome to Smart Academy

username

password

Dont have account? Register here.

LOGIN

4.4 DATABASE DESIGN

4.4.1 Relational Database Management System (RDBMS)

RDBMS stands for Relational Database Management System. All modern database management systems like SQL, MS SQL Server, IBM DB2, ORACLE, My-SQL, and Microsoft Access are based on RDBMS. It is called Relational Database Management System (RDBMS) because it is based on the relational model introduced by E.F. Codd. Data is represented in terms of tuples (rows) in RDBMS.A relational database is the most commonly used database. It contains several tables, and each table has its primary key. Due to a collection of an organized set of tables, data can be accessed easily in RDBMS.

4.4.2 Normalization

Normalization is a database design technique that reduces data redundancy and eliminates undesirable characteristics like Insertion, Update and Deletion Anomalies. Normalization rules divides larger tables into smaller tables and links them using relationships. The purpose of Normalization in SQL is to eliminate redundant (repetitive) data and ensure data is stored logically. The inventor of the relational model Edgar Codd proposed the theory of normalization of data with the introduction of the First Normal Form, and he continued to extend theory with Second and Third Normal Form. Later he joined Raymond F. Boyce to develop the theory of Boyce-Codd Normal Form

4.4.3 Sanitization

Data Sanitization involves the secure and permanent erasure of sensitive data from datasets and media to guarantee that no residual data can be recovered even through extensive forensic analysis.[1] Data sanitization has a wide range of applications but is mainly used for clearing out end-of- life electronic devices or for the sharing and use of large datasets that contain sensitive information. The main strategies for erasing personal datafrom devices are physical destruction, cryptographic erasure, and data erasure. While the term data sanitization may lead some to believe that it only includes data on electronic media, the term also broadly coversphysical media, such as paper copies. These data types are termed soft for electronic files and hard for physical media paper copies. Data sanitizationmethods are also applied for the cleaning of sensitive data, such as throughheuristic-based methods, machine-learning based methods, and k-source anonymity.

4.4.4 Indexing

Indexing is used to optimize the performance of a database by minimizing the number of disk accesses required when a query is processed. The index is a type of data structure. It is used to locate and access the data in a database table quickly.

- Primary Index − Primary index is defined on an ordered data file. The data file is ordered on a key field. The key field is generally the primary key of the relation.
- Secondary Index − Secondary index may be generated from a field which is a candidate key and has a unique value in every record, or a non-key with duplicate values.
- Clustering Index − Clustering index is defined on an ordered data file. The data file is ordered on a non-key field.

4.5 TABLE DESIGN

1. tbl_reg

Primary key: **stud_id**

No:	Fieldname	Datatype	Key Constraints	Description
1	stud_id	int	Primary Key	Uniquely identify each student
2	log_id	int	Foreign key	Maps login table
3	sname	varchar	Not Null	Student name
4	admno	varchar	Not Null	Admission Number
5	sadd	varchar	Not Null	Student address
6	sdob	date	Not Null	Student date of birth
7	sphoneno	varchar	Not Null	Student Phone number
8	semail	varchar	Not Null	Student email
9	scourse	varchar	Not Null	Student course
10	sstay	varchar	Not Null	Student Stay Details

2. tbl_reg

Primary Key:batch_id

No	Fieldname	Datatype	Key constraints	Description
1	batch_id	int	Primary Key	Uniquely Identify each batch
2	course_id	int	Foreign Key	Map course table
3	batchname	varchar	Not Null	Batch name

3. tbl_course

Primary Key:course_id

No	Fieldname	Datatype	Key constraints	Description
1	course_id	int	Primary Key	Uniquely identify each course
2	coursename	varchar	Not Null	Course Name

4. tbl_leave

Primary Key:leave_id

No	Fieldname	Datatype	Key constraints	Description
1	leave_id	int	Primary Key	Uniquely identify leave
2	username	varchar	Not Null	Uniquely identify username
3	fromdate	date	Not Null	Leave from date
4	todate	date	Not Null	Leave to date
5	subteach	varchar	Not Null	Teacher username
6	leavereason	varchar	Not Null	Reason for taking leave
7	lstatus	varchar	Not Null	Whether the leave is approved or not
8	role	varchar	Not Null	Teacher or Student

5. tbl_login

Primary Key:log_id

No	Fieldname	Datatype	Key constraints	Description
1	log_id	int	Primary Key	Uniquely identify each Logged users
2	username	varchar	Not Null	Logged username
3	passsword	varchar	Not Null	Password of the logged user
4	role	varchar	Not Null	Whether its HOD,Teacher or Student
5	code	varchar	Not Null	Email Verification Status

6. tbl_regsem

Primary Key:semid

No	Fieldname	Datatype	Key constraints	Description
1	semid	int	Primary Key	Uniquely identify each sem
2	semname	varchar	Not Null	Each Semester

7. tbl_regsub

Primary Key:rsub_id

No	Fieldname	Datatype	Key constraints	Description
1	rsub_id	int	Primary Key	Uniquely identify each Subject
2	semid	int	Foreign Key	Maps to semester table
3	rsubname	varchar	Not Null	SubjectName

8. tbl_staff

Primary Key:tid

No	Fieldname	Datatype	Key constraints	Description
1	tid	int	Primary Key	Uniquely Identify Each teacher
2	log_id	int	Foreign Key	Maps to login Table
3	tname	varchar	Not Null	Teacher’s Username
4	tadd	varchar	Not Null	Teachers address
5	tphoneno	varchar	Not Null	Teachers PhoneNumber
6	tdoj	date	Not Null	Teachers Date Of Birth
7	temail	varchar	Not Null	Teachers Email
8	tqual	varchar	Not Null	Teachers Qualification
9	tpass	varchar	Not Null	Teachers Password
10	tstatus	tinyint	Not Null	To activate and Deactivate Teachers

9. tbl_teachersubmap

Primary Key:map_id

No	Fieldname	Datatype	Key constraints	Description
1	map_id	int	Primary Key	Uniquely Identify Each Course to Tecaher
2	rsub_id	int	Foreign Key	Maps To Subjects table
3	tid	int	Foreign Key	Maps to teachers table

CHAPTER 5

SYSTEM TESTING

5.1 INTRODUCTION

System Testing is a level of testing that validates the complete and fully integrated software product. The purposeof a system test is to evaluate the end-to-end system specifications. Usually, the software is only one element of alarger computer-based system. Ultimately, the software is interfaced with other software/hardware systems.

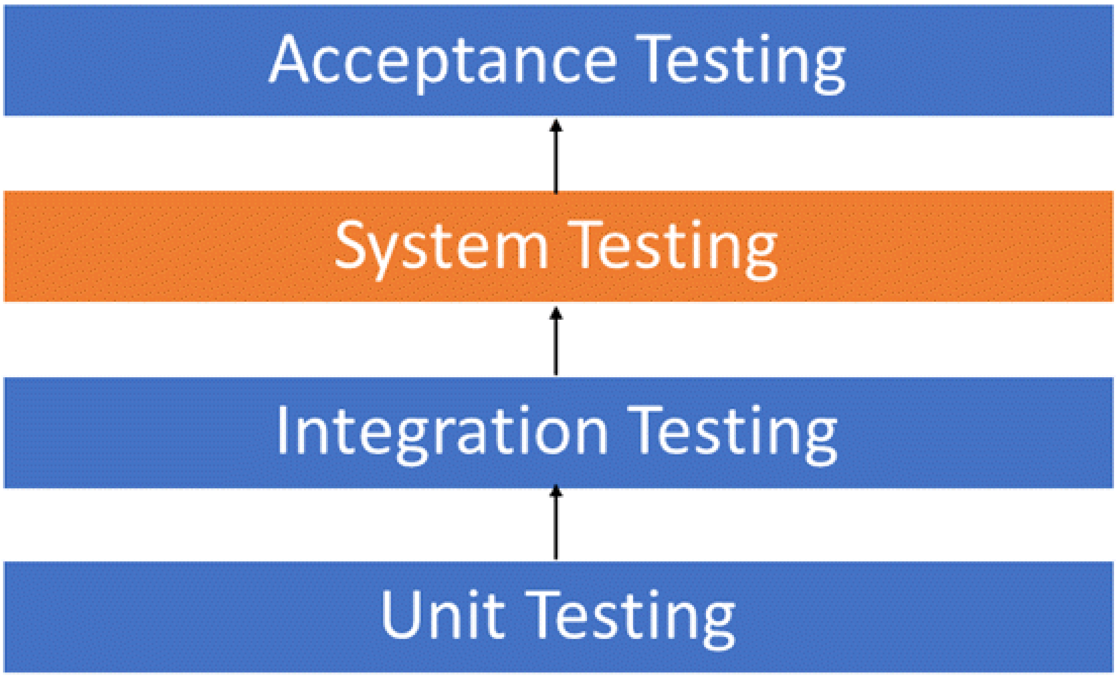
System Testing is defined as a series of different tests whose sole purpose is to exercise the full computer-basedsystem.

Two Category of Software Testing

- Black Box Testing
- White Box Testing

System test falls under the black box testing category of software testing.

White box testing is the testing of the internal workings or code of a software application. In contrast, black box orSystem Testing is the opposite. System test involves the external workings of the software from the user’s perspective.



5.2 TEST PLAN

This test plan for website cross browser testing supports the following objectives:

- To define the the tools to be used throughout the testing process.
- To communicate to the responsible parties the items to be tested, set expectations around schedule, and define environmental needs.
- To define how the tests will be conducted.

5.2.1 Unit Testing

Unit Testing is a software testing technique by means of which individual units of software i.e. group of computer program modules, usage procedures, and operating procedures are tested to determine whether they are suitable for use or not. It is a testing method using which every independent module is tested to determine if there is an issue by the developer himself. It is correlated with the functional correctness of the independent modules. Unit Testing is defined as a type of software testing where individual components of a software are tested. Unit Testing of the software product is carried out during the development of an application. An individual component may be either an individual function or a procedure. Unit Testing is typically performed by the developer. In SDLC or V Model, Unit testing is the first level of testing done before integration testing. Unit testing is such a type of testing technique that is usually performed by developers. Although due to the reluctance of developers to test, quality assurance engineers also do unit testing.

5.2.2 Integration Testing

Integration Testing is defined as a type of testing where software modules are integrated logically and tested as a group. A typical software project consists of multiple software modules, coded by different programmers. The purpose of this level of testing is to expose defects in the interaction between these software modules when they are integrated

5.2.3 Validation Testing or System Testing

The process of evaluating software during the development process or at the end of the development process to determine whether it satisfies specified business requirements.Validation Testing ensures that the product actually meets the client's needs. It can also be defined as to demonstrate that the product fulfills its intended use when deployed on appropriate environment. It answers to the question, Are we building the right product?

5.2.4 Output Testing or User Acceptance Testing

User Acceptance Testing (UAT) is a type of testing performed by the end user or the client to verify/accept the software system before moving the software application to the production environment. UAT is done in the final phase of testing after functional, integration and system testing is done.

5.2.1 Automation Testing

Automation testing is the process of testing software and other tech products to ensure it meets strict requirements. Essentially, it’s a test to double-check that the equipment or software does exactly what it was designed to do. It tests for bugs, defects, and any other issues that can arise with product development.

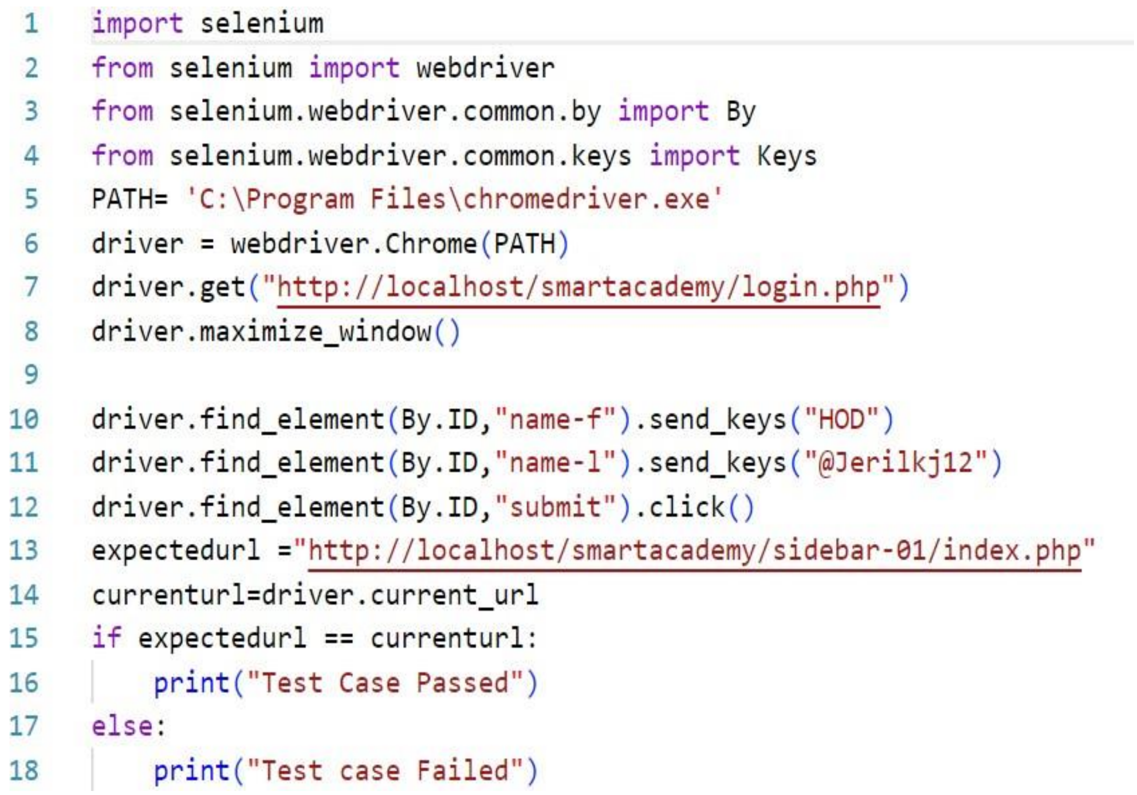
Although some types of testing, such as regression or functional testing can be done manually, there are greater benefits of doing it automatically. Automation testing can be run at any time of the day. It uses scripted sequences to examine the software. It then reports on what’s been found, and this information can be compared with earlier test runs. Automation developers generally write in the following programming languages: C#, JavaScript, and Ruby

5.2.2 Selenium Testing

Selenium is an open-source, automated, and valuable testing tool that all web application developers should be well aware of. A test performed using Selenium is usually referred to as Selenium automation testing. However, Selenium is not just a single tool but a collection of tools, each catering to different Selenium automation testing needs. In this tutorial you will learn all about Selenium and the various types of Selenium automation testing tools.

Example: Test case1

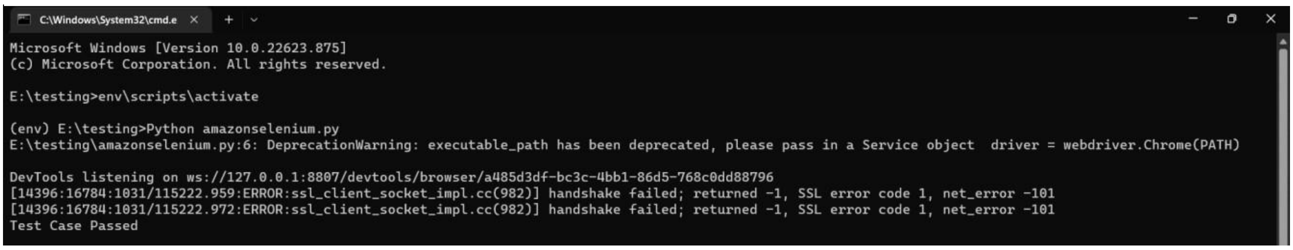
code



```python
import selenium
from selenium import webdriver
from selenium.webdriver.common.by import By
from selenium.webdriver.common.keys import Keys
PATH= 'C:\Program Files\chromedriver.exe'
driver = webdriver.Chrome(PATH)
driver.get("http://localhost/smartacademy/login.php")
driver.maximize_window()

driver.find_element(By.ID,"name-f").send_keys("HOD")
driver.find_element(By.ID,"name-l").send_keys("@Jerilkj12")
driver.find_element(By.ID,"submit").click()
expectedurl ="http://localhost/smartacademy/sidebar-01/index.php"
currenturl=driver.current_url
if expectedurl == currenturl:
    print("Test Case Passed")
else:
    print("Test case Failed")
```

Eg.screenshot



```
Microsoft Windows [Version 10.0.22623.875]
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E:\testing>env\scripts\activate

(env) E:\testing>Python amazonselenium.py
E:\testing\amazonselenium.py:6: DeprecationWarning: executable_path has been deprecated, please pass in a Service object  driver = webdriver.Chrome(PATH)

DevTools listening on ws://127.0.0.1:8807/devtools/browser/a485d3df-bc3c-4bb1-86d5-768c0dd88796
[14396:16784:1031/115222.959:ERROR:ssl_client_socket_impl.cc(982)] handshake failed; returned -1, SSL error code 1, net_error -101
[14396:16784:1031/115222.972:ERROR:ssl_client_socket_impl.cc(982)] handshake failed; returned -1, SSL error code 1, net_error -101
Test Case Passed
```
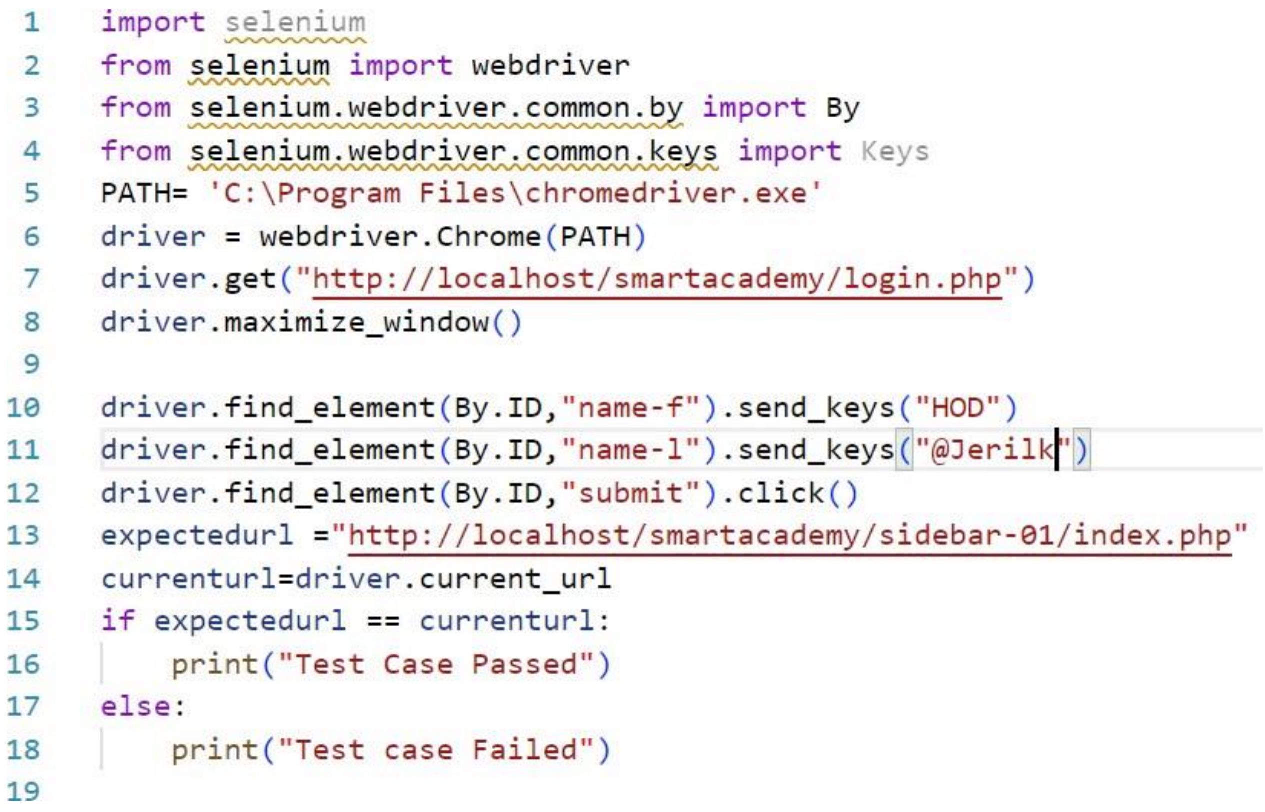

Test report

Test Case 1

Project Name:Smart Academy					
Login Test Case					
Test Case ID: Test_1			**Test Designed By: Jeril K Jolly**		
Test Priority(Low/Medium/High):High			**Test Designed Date: 29-10-2022**		
Module Name: Login			**Test Executed By : Ms.Pauline Paul**		
Test Title : Login test			**Test Execution Date: 29-10-2022**		
Description: Testing the login module					
Pre-Condition : User has valid username and password					
Step	**Test Step**	**Test Data**	**Expected Result**	**Actual Result**	**Status(Pass/ Fail)**
1	Navigate to login page		User should be able to login	User is navigated to index page with successful login	Pass
2	Provide valid username	username – “HOD”			
3	Provide valid password	Password- “@Jerilkj12”			
4	Click on login button				
Post-Condition: User is navigated to the index page					

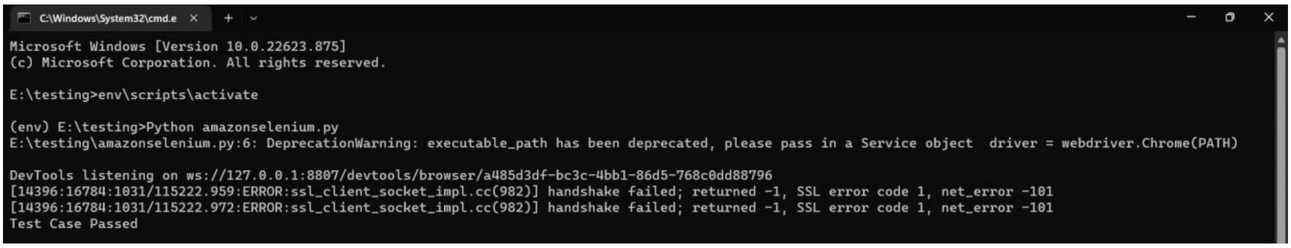
Test Case 2:

Code



```python
import selenium
from selenium import webdriver
from selenium.webdriver.common.by import By
from selenium.webdriver.common.keys import Keys
PATH= 'C:\Program Files\chromedriver.exe'
driver = webdriver.Chrome(PATH)
driver.get("http://localhost/smartacademy/login.php")
driver.maximize_window()

driver.find_element(By.ID,"name-f").send_keys("HOD")
driver.find_element(By.ID,"name-l").send_keys("@Jerilk")
driver.find_element(By.ID,"submit").click()
expectedurl ="http://localhost/smartacademy/sidebar-01/index.php"
currenturl=driver.current_url
if expectedurl == currenturl:
    print("Test Case Passed")
else:
    print("Test case Failed")
```

Screenshot



```
Microsoft Windows [Version 10.0.22623.875]
(c) Microsoft Corporation. All rights reserved.

E:\testing>env\scripts\activate

(env) E:\testing>Python amazonselenium.py
E:\testing\amazonselenium.py:6: DeprecationWarning: executable_path has been deprecated, please pass in a Service object  driver = webdriver.Chrome(PATH)

DevTools listening on ws://127.0.0.1:8807/devtools/browser/a485d3df-bc3c-4bb1-86d5-768c0dd88796
[14396:16784:1031/115222.959:ERROR:ssl_client_socket_impl.cc(982)] handshake failed; returned -1, SSL error code 1, net_error -101
[14396:16784:1031/115222.972:ERROR:ssl_client_socket_impl.cc(982)] handshake failed; returned -1, SSL error code 1, net_error -101
Test Case Passed
```

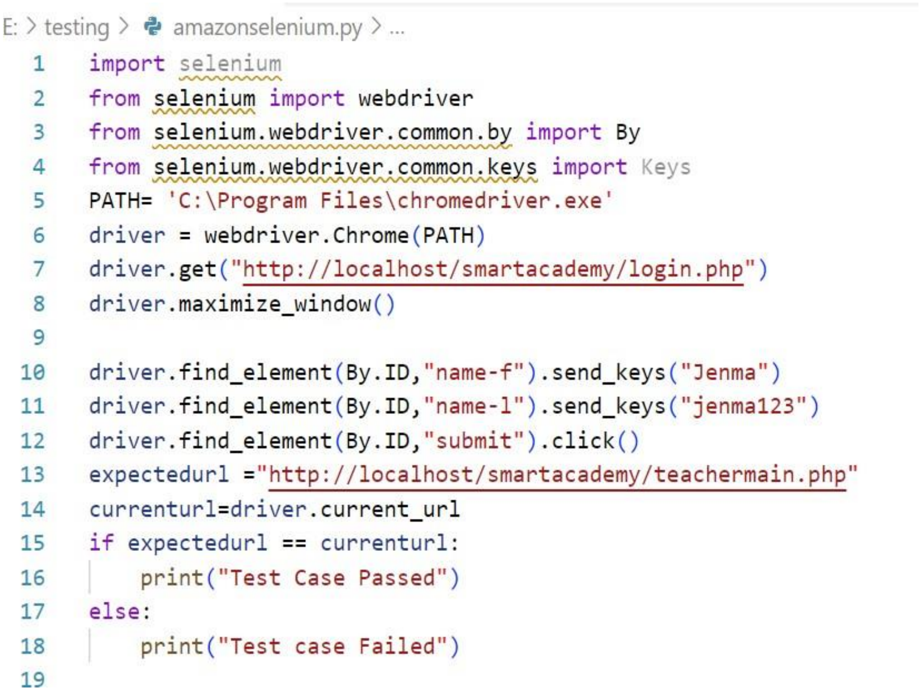
Test report

Test Case 2	
Project Name:Smart Academy	
Login Test Case	
Test Case ID: Test_1	**Test Designed By: Jeril K Jolly**
Test Priority(Low/Medium/High):High	**Test Designed Date: 29-10-2022**
Module Name: Login	**Test Executed By : Ms.Pauline Paul**

Test Title : Login fail test			**Test Execution Date: 29-10-2022**		
Description: Testing the login module					
Pre-Condition : User has wrong credentials					
Step	**Test Step**	**Test Data**	**Expected Result**	**Actual Result**	**Status(Pass/ Fail)**
1	Navigate to login page		User should not be able to login	User is navigated back to login page	Pass
2	Provide valid username	username – "HOD"			
3	Provide incorrect password	Password- "@Jerilkj"			
4	Click on login button				
Post-Condition: User is navigated back to login page					

Test Case 3:

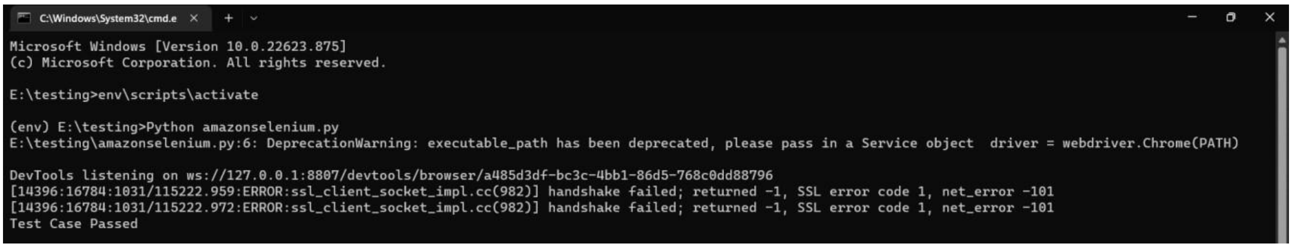
Code



E: > testing > amazonselenium.py > ...

```
import selenium
from selenium import webdriver
from selenium.webdriver.common.by import By
from selenium.webdriver.common.keys import Keys
PATH= 'C:\Program Files\chromedriver.exe'
driver = webdriver.Chrome(PATH)
driver.get("http://localhost/smartacademy/login.php")
driver.maximize_window()

driver.find_element(By.ID,"name-f").send_keys("Jenma")
driver.find_element(By.ID,"name-l").send_keys("jenma123")
driver.find_element(By.ID,"submit").click()
expectedurl ="http://localhost/smartacademy/teachermain.php"
currenturl=driver.current_url
if expectedurl == currenturl:
    print("Test Case Passed")
else:
    print("Test case Failed")

```

Screenshot



```
Microsoft Windows [Version 10.0.22623.875]
(c) Microsoft Corporation. All rights reserved.

E:\testing>env\scripts\activate

(env) E:\testing>Python amazonselenium.py
E:\testing\amazonselenium.py:6: DeprecationWarning: executable_path has been deprecated, please pass in a Service object  driver = webdriver.Chrome(PATH)

DevTools listening on ws://127.0.0.1:8807/devtools/browser/a485d3df-bc3c-4bb1-86d5-768c0dd88796
[14396:16784:1031/115222.959:ERROR:ssl_client_socket_impl.cc(982)] handshake failed; returned -1, SSL error code 1, net_error -101
[14396:16784:1031/115222.972:ERROR:ssl_client_socket_impl.cc(982)] handshake failed; returned -1, SSL error code 1, net_error -101
Test Case Passed
```

Test Case 3

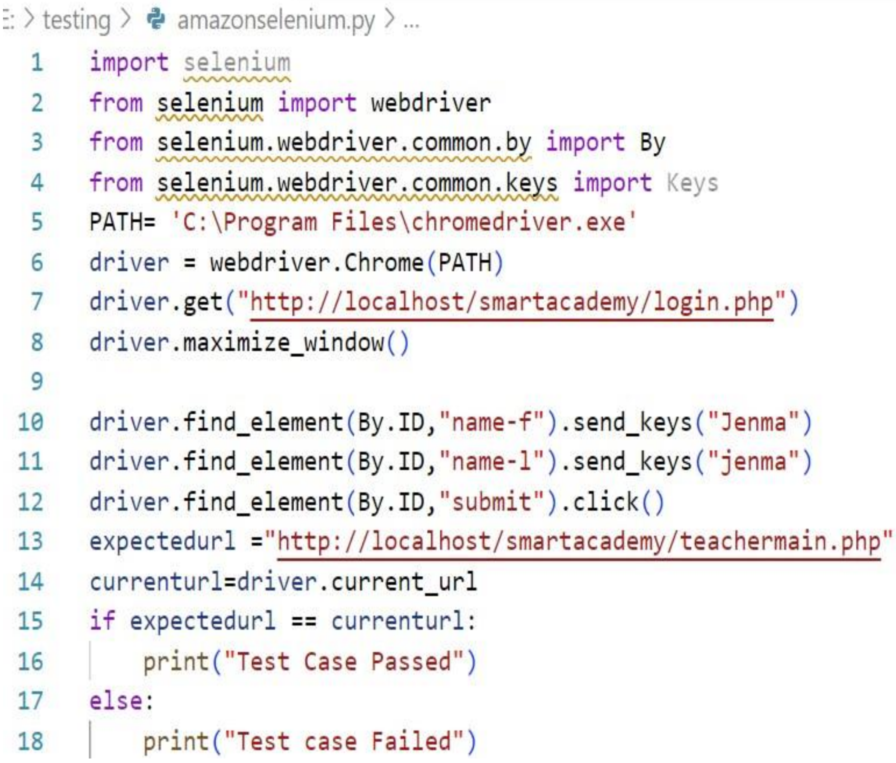
Project Name:Smart Academy	
Login Test Case	
Test Case ID: Test_1	**Test Designed By: Jeril K Jolly**
Test Priority(Low/Medium/High):High	**Test Designed Date: 29-10-2022**
Module Name: Teacher Login	**Test Executed By : Ms.Pauline Paul**
Test Title : Login test	**Test Execution Date: 29-10-2022**
Description: Testing the login module	
Pre-Condition : User has valid username and password	

Step	**Test Step**	**Test Data**	**Expected Result**	**Actual Result**	**Status(Pass/ Fail)**
1	Navigate to login page		User should be able to login to teacher page	User is navigated to teachers page with successful login	Pass
2	Provide valid username	username – “Jenma”			
3	Provide valid password	Password- “Jenma123”			
4	Click on login button				

Post-Condition: User is navigated to the index page

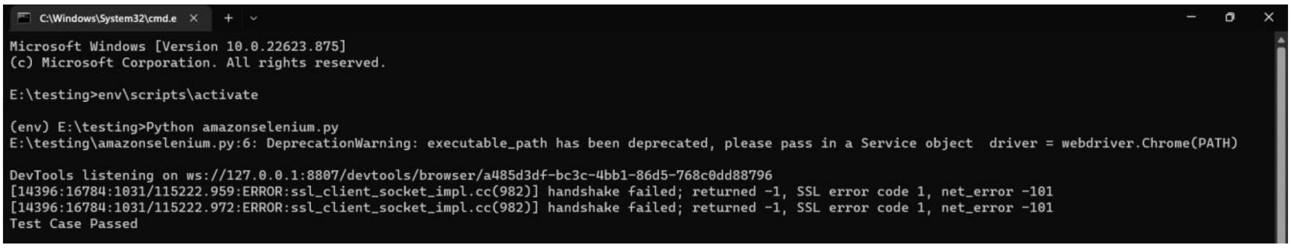
Test Case 4:

Code



```python
import selenium
from selenium import webdriver
from selenium.webdriver.common.by import By
from selenium.webdriver.common.keys import Keys
PATH= 'C:\Program Files\chromedriver.exe'
driver = webdriver.Chrome(PATH)
driver.get("http://localhost/smartacademy/login.php")
driver.maximize_window()

driver.find_element(By.ID,"name-f").send_keys("Jenma")
driver.find_element(By.ID,"name-l").send_keys("jenma")
driver.find_element(By.ID,"submit").click()
expectedurl ="http://localhost/smartacademy/teachermain.php"
currenturl=driver.current_url
if expectedurl == currenturl:
    print("Test Case Passed")
else:
    print("Test case Failed")
```

Screenshot



```
Microsoft Windows [Version 10.0.22623.875]
(c) Microsoft Corporation. All rights reserved.

E:\testing>env\scripts\activate

(env) E:\testing>Python amazonselenium.py
E:\testing\amazonselenium.py:6: DeprecationWarning: executable_path has been deprecated, please pass in a Service object  driver = webdriver.Chrome(PATH)

DevTools listening on ws://127.0.0.1:8807/devtools/browser/a485d3df-bc3c-4bb1-86d5-768c0dd88796
[14396:16784:1031/115222.959:ERROR:ssl_client_socket_impl.cc(982)] handshake failed; returned -1, SSL error code 1, net_error -101
[14396:16784:1031/115222.972:ERROR:ssl_client_socket_impl.cc(982)] handshake failed; returned -1, SSL error code 1, net_error -101
Test Case Passed
```

Test Case 4	
Project Name:Smart Academy	
Login Test Case	
Test Case ID: Test_1	**Test Designed By: Jeril K Jolly**
Test Priority(Low/Medium/High):High	**Test Designed Date: 29-10-2022**
Module Name: Teacher Login	**Test Executed By : Ms.Pauline Paul**
Test Title : Teachers Login test	**Test Execution Date: 29-10-2022**

Description: Testing the login module					
Pre-Condition : User has valid username and password					
Step	**Test Step**	**Test Data**	**Expected Result**	**Actual Result**	**Status(Pass/ Fail)**
1	Navigate to login page		User should not be able to login to teacher page	User is navigated back to login page	Pass
2	Provide valid username	username – "Jenma"			
3	Provide valid password	Password- "Jenma"			
4	Click on login button				
Post-Condition: User is back to login page					

CHAPTER 6

IMPLEMENTATION

6.1 INTRODUCTION

Implementation is the stage of the project where the theoretical design is turned into a working system. It can be considered to be the most crucial stage in achieving a successful new system gaining the users confidence that the new system will work and will be effective and accurate. It is primarily concerned with user training and documentation. Conversion usually takes place about the same time the user is being trained or later. Implementation simply means convening a new system design into operation, which is the process of converting a new revised system design into an operational one.

At this stage the main work load, the greatest upheaval and the major impact on the existing system shifts to the user department. If the implementation is not carefully planned or controlled, it can create chaos and confusion.

Implementation includes all those activities that take place to convert from the existing system to the new system. The new system may be a totally new, replacing an existing manual or automated system or it may be a modification to an existing system. Proper implementation is essential to provide a reliable system to meet organization requirements. The process of putting the developed system in actual use is called system implementation. This includes all those activities that take place to convert from the old system to the new system. The system can be implemented only after through testing is done and if it is found to be working according to the specifications. The system personnel check the feasibility of the system. The more complex the system being implemented, the more involved will be the system analysis and design effort required to implement the three main aspects: education and training, system testing and changeover.

The implementation state involves the following tasks:

- Careful planning.
- Investigation of system and constraints.
- Design of methods to achieve the changeover.

6.2 IMPLEMENTATION PROCEDURES

Implementation of software refers to the final installation of the package in its real environment, to the satisfaction of the intended uses and the operation of the system.

In many organizations someone who will not be operating it, will commission the software development project. In the initial stage people doubt about the software but wehave to ensure that the resistance does not build up, as one has to make sure that:

The active user must be aware of the benefits of using the new system.

Their confidence in the software is built up.

Proper guidance is imparted to the user so that he is comfortable in using the application.

Before going ahead and viewing the system, the user must know that for viewing the result, the server program should be running in the server. If the server object is not up running on the server, the actual process won’t take place.

6.2.1 User Training

User training is designed to prepare the user for testing and converting the system. To achievethe objective and benefits expected from computer based system, it is essential for the people who will be involved to be confident of their role in the new system. As system becomes more complex, the need for training is more important. By user training the user comes to know how to enter data, respond to error messages, interrogate the database and call up routine that will produce reports and perform other necessary functions.

6.2.2 System Maintenance

Maintenance is the enigma of system development. The maintenance phase of the software cycle is the time in which a software product performs useful work. After a system is successfully implemented, it should be maintained in a proper manner. System maintenance is an important aspect in the software development life cycle. The need for system maintenance is for it to make adaptable to the changes in the system environment. Software maintenance is of course, far more than "Finding Mistakes".

6.2.3 Training on the Application Software

After providing the necessary basic training on computer awareness the user will have to be trained on the new application software. This will give the underlying philosophy of the use of the new system such as the screen flow, screen design type of help on the screen, type of errors while entering the data, the corresponding validation check at each entry and the ways to correct the date entered. It should then cover information needed by the specific user/ group to use the system or part of the system while imparting the training of the program on the application. This training may be different across different user groups and across different levels of hierarchy

CHAPTER 7

CONCLUSION AND FUTURE SCOPE

7.1 CONCLUSION

The project entitled “Smart Academy” was completed successfully. The system has been developed with much care and free of errors and at the same time it is efficient and less time consuming. Through this website we can manage teacher and student details . By using this site we can save our time. This project helped us in gaining valuable information and practical knowledge on several topics like designing web pages using HTML &CSS usage of responsive templates, designing of php webpages, and management of database using MySql .Also the project helped us understanding about the development phases of a project and software development life cycle. We learned how to test different features of a project.

7.2 FUTURE SCOPE

There is a scope for further development in our project to a great extend.A number of features can be added to this system in future like providing more controls between teachers and admins.An RFID attendance system can be introduced which will eliminate manual entry of attendance which is tedious job and can cause many errors

.

CHAPTER 8

BIBLIOGRAPHY

REFERENCES:

- Gary B. Shelly, Harry J. Rosenblatt, “System Analysis and Design”, 2009.
- Roger S Pressman, “Software Engineering”, 1994.
- PankajJalote, “Software engineering: a precise approach”, 2006.
- IEEE Std 1016 Recommended Practice for Software Design Descriptions.

WEBSITES:

- www.w3schools.com
- http://homepages.dcc.ufmg.br/~rodolfo/es-1-03/IEEE-Std-830-1998.pdf
- www.agilemodeling.com/artifacts/useCaseDiagram.html

CHAPTER 9

APPENDIX

9.1 Sample Code

1) Adding teacher

```
 $sql = "INSERT INTO tbl_login( log_id,username,password,role) VALUES
('','$tname','$tpass','$role')";

 $result=$conn->query($sql);

$sql2="SELECT log_id from tbl_login where username='$tname'";
$result=$conn->query($sql2);
if($result->num_rows>0)
{
echo "hey";
foreach($result as $data)

{

$log_id=$data['log_id'];
}

}
$sql1 ="INSERT INTO tbl_staff VALUES
('','$log_id','$tname','$tadd','$tphoneno','$tdoj','$temail','$tqual','$tpass','')"
;
    if($conn->query($sql1) === TRUE)
    {
        echo "Successful inserted login";
    }
    else
   {
        echo "Insertion failed in login";
   }
   header('Location:hodteacher.php');
   echo "Successful inserted";
```

2)leave Managment

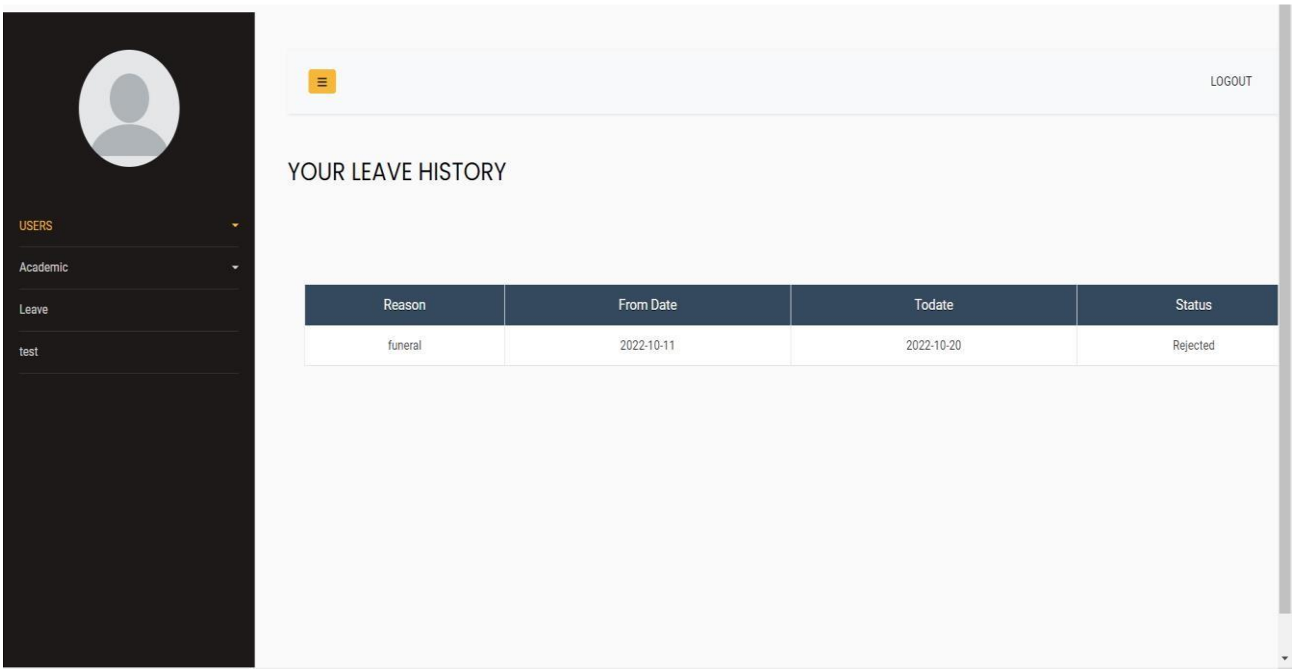
```php
<?php
  $servername = "localhost";
  $username = "root";
  $password = "";
  $dbname = "super_academy";

// Create connection
$conn = new mysqli($servername,
    $username, $password, $dbname);

// Check connection
if ($conn->connect_error) {
    die("Connection failed: "
        . $conn->connect_error);
}else{
    echo "Connected";
}
 $fromdate = $_REQUEST['fromdate'];
 $todate = $_REQUEST['todate'];
 $reason = $_REQUEST['reason'];
 $subteach = $_REQUEST['subteach'];
 $url_query = $_GET['id'];
$status="pending";
 $role="teacher";

$sql1="INSERT INTO `tbl_leave`( `username`, `fromdate`, `todate`,`subteach`,
`leavereason`, `lstatus`, `role`)
 VALUES
('$url_query','$fromdate','$todate','$subteach','$reason','$status','$role')";

if($conn->query($sql1) === TRUE)
{

        echo "Successful updation";
    }
    else
   {
        echo "updation failed ";
   }
   header('Location:teachermain.php');
   echo "Successful inserted";

// else
// {
//     echo "Insertion failed";
// }
```

3) login Page

```
$query = "SELECT * FROM tbl_login WHERE username='$uname' AND password='$pass'";
  $result = mysqli_query($conn,$query);
   if (mysqli_num_rows($query) > 0) {
  $sql2="SELECT code FROM tbl_login WHERE username='{$uname}'";


   if ($result=$conn->query($sql2)== NULL) {
     if(mysqli_num_rows($result)>0)
  {
    echo $result->username;
    while($row = mysqli_fetch_assoc($result))
    {
      if($row["role"] == "hod")
      {
        $_SESSION['LoginUser'] = $row["username"];
        $_SESSION['LoginRole'] = $row["role"];
        header('Location:sidebar-01/index.php');
      }
      else if($row["role"] == "student")
      {


        $_SESSION['LoginUser'] = $row["username"];
        $_SESSION['LoginRole'] = $row["role"];

        header('Location:sidebar-01/studentmain.php');
      }
      else if($row["role"] == "teacher")
      {
        $_SESSION['LoginUser'] = $row["username"];
        $_SESSION['LoginRole'] = $row["role"];
        header('Location:sidebar-01/teachermain.php');

      }
```

9.2 Screen Shots

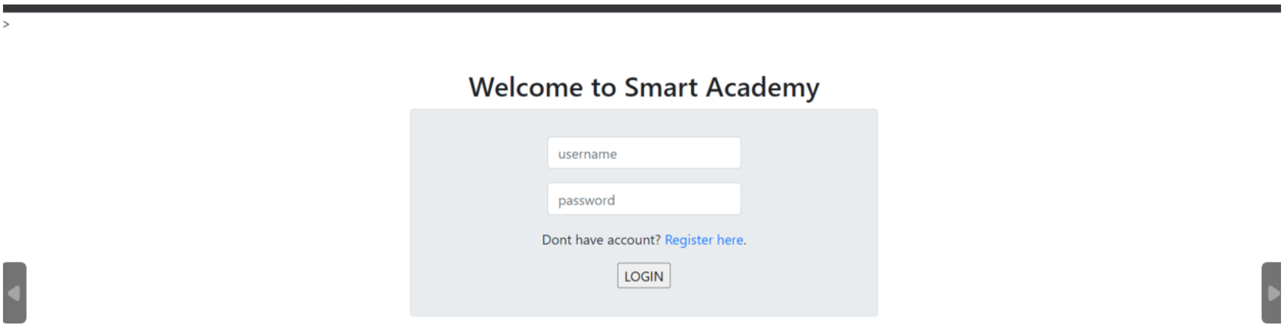
Leave history



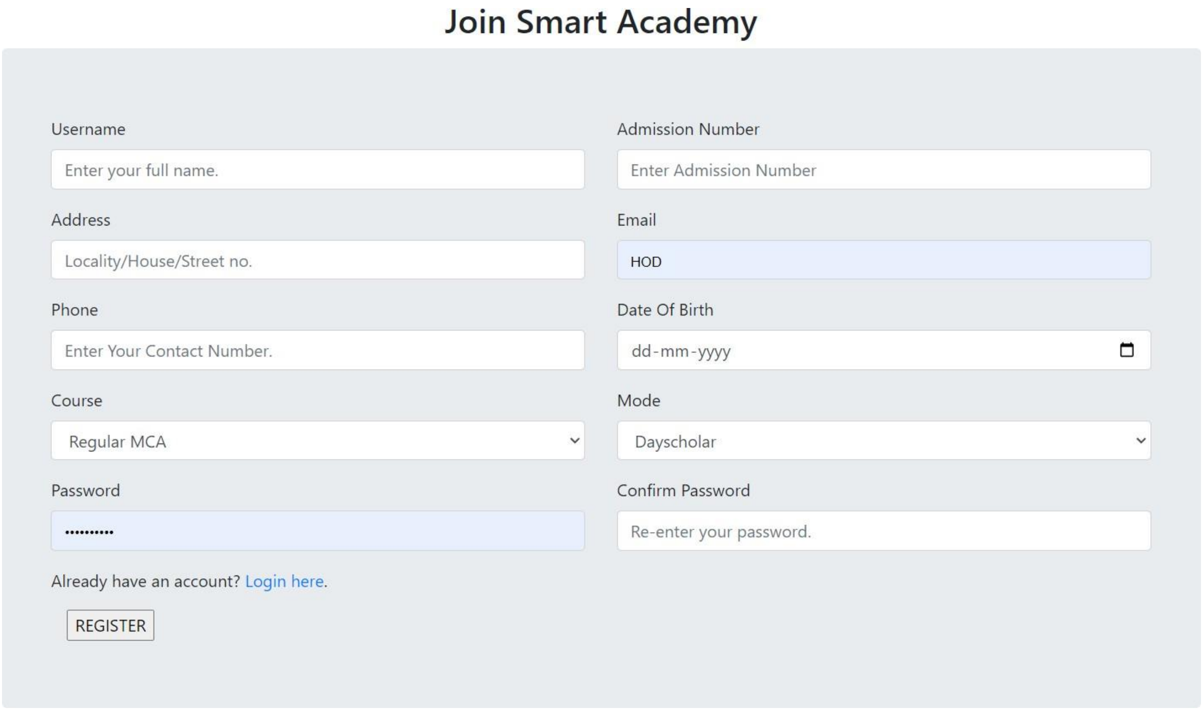
YOUR LEAVE HISTORY

Reason	From Date	Todate	Status
funeral	2022-10-11	2022-10-20	Rejected

Login Page


Welcome to Smart Academy

Registration Page



Join Smart Academy

Username: Enter your full name.

Admission Number: Enter Admission Number

Address: Locality/House/Street no.

Email: HOD

Phone: Enter Your Contact Number.

Date Of Birth: dd-mm-yyyy

Course: Regular MCA

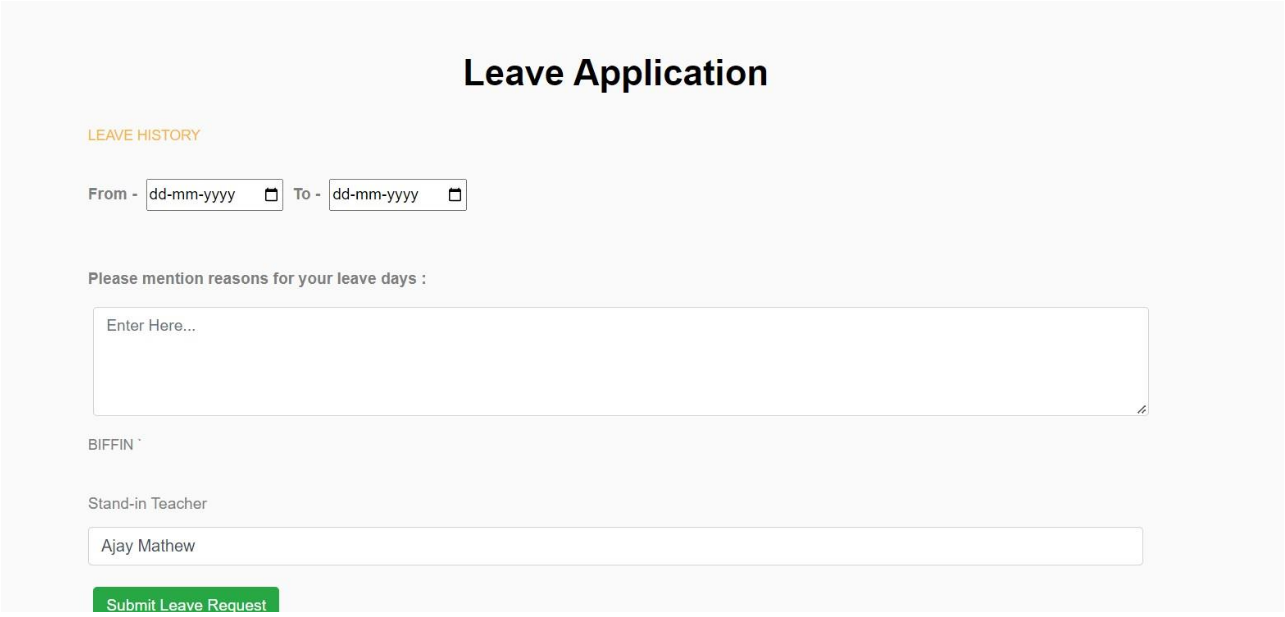
Mode: Dayscholar

Password: ••••••••••

Confirm Password: Re-enter your password.

Already have an account? Login here.

Leave Application



Leave Application

LEAVE HISTORY

From - dd-mm-yyyy To - dd-mm-yyyy

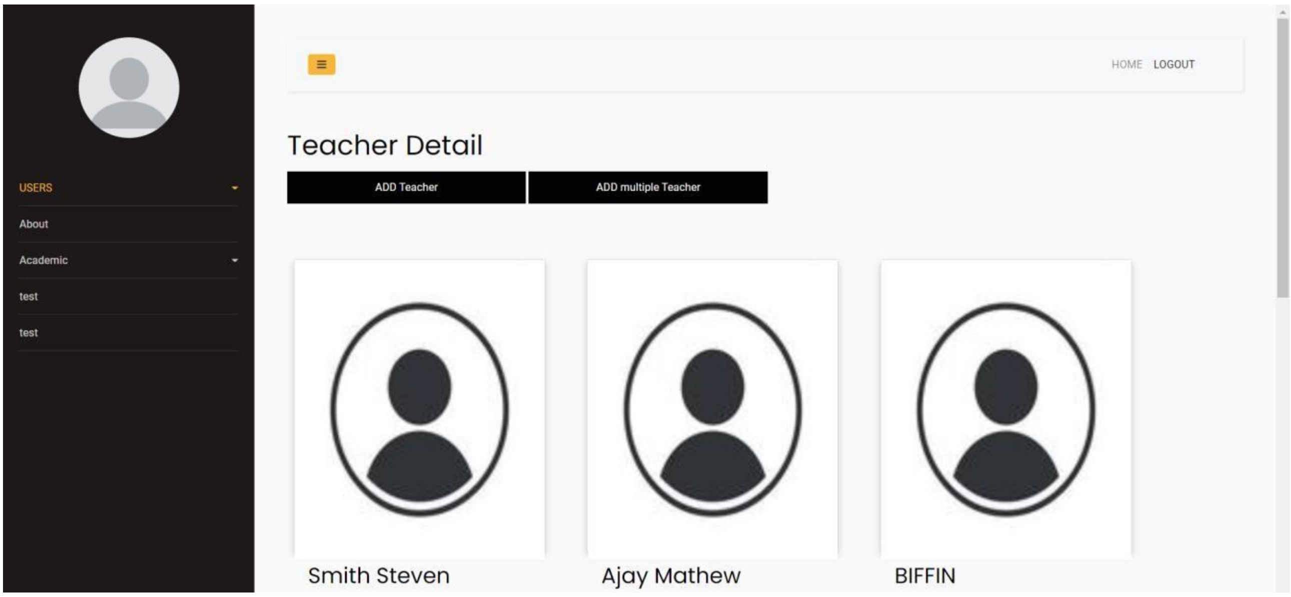
Please mention reasons for your leave days :

Enter Here...

BIFFIN `

Stand-in Teacher: Ajay Mathew

Teachers add Function



Teacher Detail

Smith Steven

Ajay Mathew

BIFFIN