

PROFESSIONAL TRAINING REPORT

at

Sathyabama Institute of Science and Technology (Deemed
to be University)

Submitted in partial fulfilment of the requirements for the award of
Bachelor of Technology Degree in Information Technology By

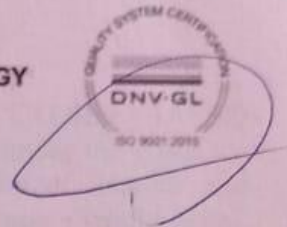
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SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
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DEPARTMENT OF INFORMATION TECHNOLOGY

BONAFIDE CERTIFICATE

This is to certify that this Project Report is the Bonafede work of **C.REDDY VENKATA MOHITHESWAR** (40120022) carried out the project entitled "**CLOUD BASED ATTENDANCE MANAGEMENT SYSTEM**" under my supervision from January 2023 to April 2023.

INTERNAL GUIDE

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28-04-23

Submitted for Viva-voce Examination held on _____

No proper
spacing
No proper
chapter headings

DECLARATION

I, hereby declare that the Project Report entitled "CLOUD BASED ATTENDANCE MANAGEMENT SYSTEM" done by me under the guidance of **Dr.P. Jeyanthi M.E., Ph.D.,** at Sathyabama Institute of Science and Technology (Deemed to be University), Jeppiar Nagar, Rajiv Gandhi Salai, Chennai – 600019 is submitted in partial fulfilment of the requirements for the award of Bachelor of Technology degree in Information Technology.

DATE: 28-04-23
PLACE: Chennai

C. Mohith Kumar.
SIGNATURE OF THE CANDIDATE

ACKNOWLEDGEMENT

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I convey our thanks to **DR.T. SASIKALA M.E., Ph.D., Dean,** School of Computing and **Dr.R. SUBHASHINI M.E., Ph.D.,** Head of the Department of Information Technology for providing us with the necessary support and details at the right time during the progressive reviews.

I would like to express our sincere and deep sense of gratitude to our Project Guide Dr.P.Jeyanthi for his valuable guidance, suggestions, and constant encouragement paved the way for the successful completion of my project work. I wish to express our thanks to all Teaching and Non-Teaching staff members of the Department of **INFORMATION TECHNOLOGY** who were helpful in many ways for the completion of the project.

TRAINING CERTIFICATE



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CHAPTER 1

INTRODUCTION:

1.1 Definition:

- Attendance Management System is a software developed for daily student attendance in schools, colleges, and institutes. It facilitates to access the attendance information of a particular student in a particular class. The information is sorted by the operators, which will be provided by the teacher for a particular class. This system will also help in evaluating the attendance eligibility criteria of a student.

1.2 Purpose:

- The purpose of developing an attendance management system is to computerize the traditional way of taking attendance. Another purpose for developing this software is to generate the report automatically at the end of the session or in between sessions.

1.3 Scope:

- The scope of the project is the system on which the software is installed, i.e., the project is developed as a desktop application, and it will work for a particular institute. But later on, the project can be modified to operate online.

1.4 Overview:

- Attendance Management System has two main modules for proper functioning: - The first module is admin which has the right for creating space for a new batch. Any entry of new faculty, updating in the subject if necessary, and sending notice. The second module is handled by the user which can be a faculty or an operator. The user has a right of making daily attendance and generating the report.

1.5 Features:

- Clocking in and out. Leave Management.
- Payroll Integration.
- Automated Communication.
- Notifications.
- Employee Self-Service.
- Calendar Integration.
- Biometric Attendance.

1.6 References:

- An Integrated Approach to Software Engineering Approach- Dr. Bharat Bhushan Agrawal and the other contents to different SRS reports.

1.7 Architecture:

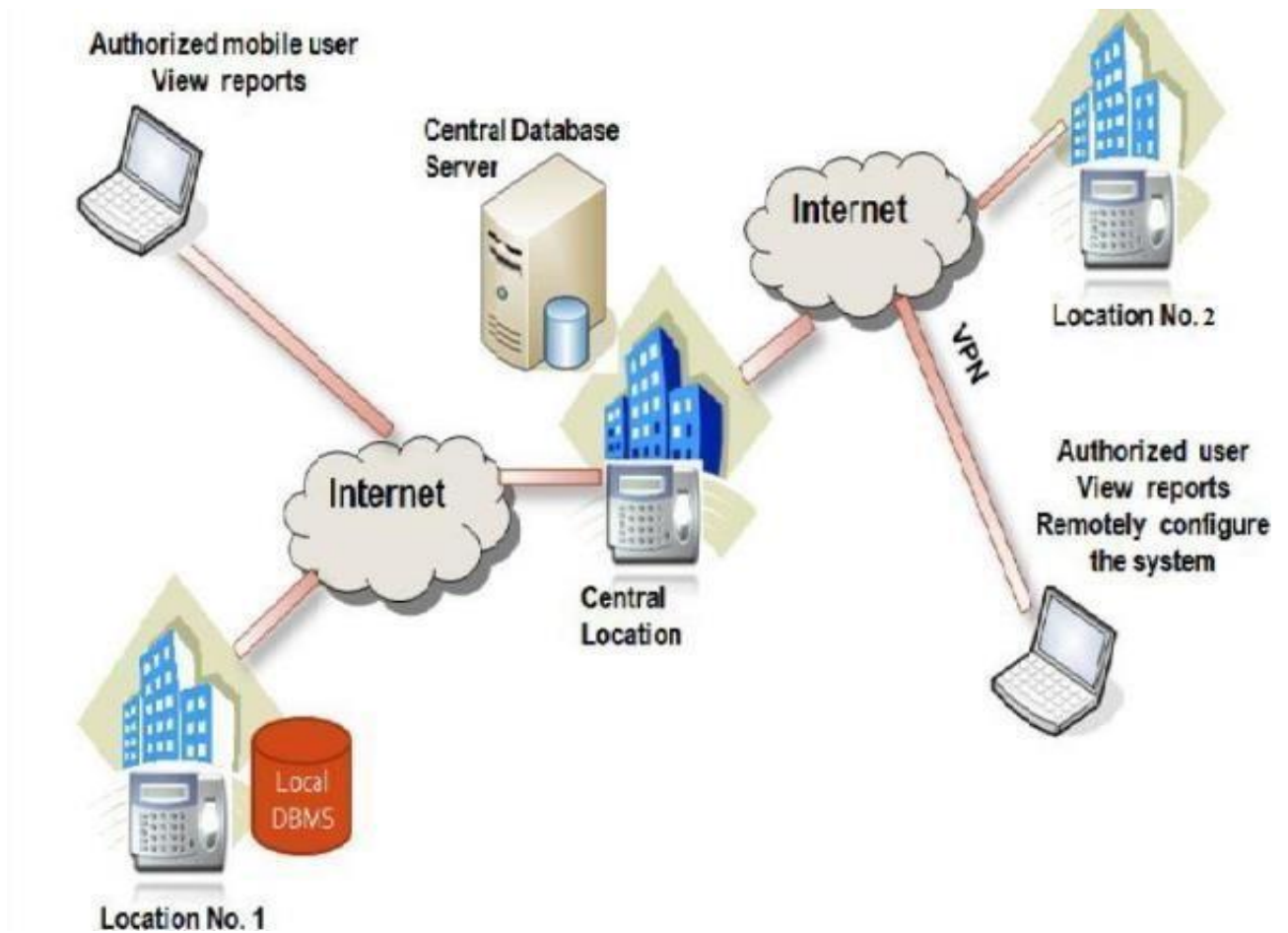


Fig 1.1 Infrastructure of Cloud Computing

1.8 Block Diagram:

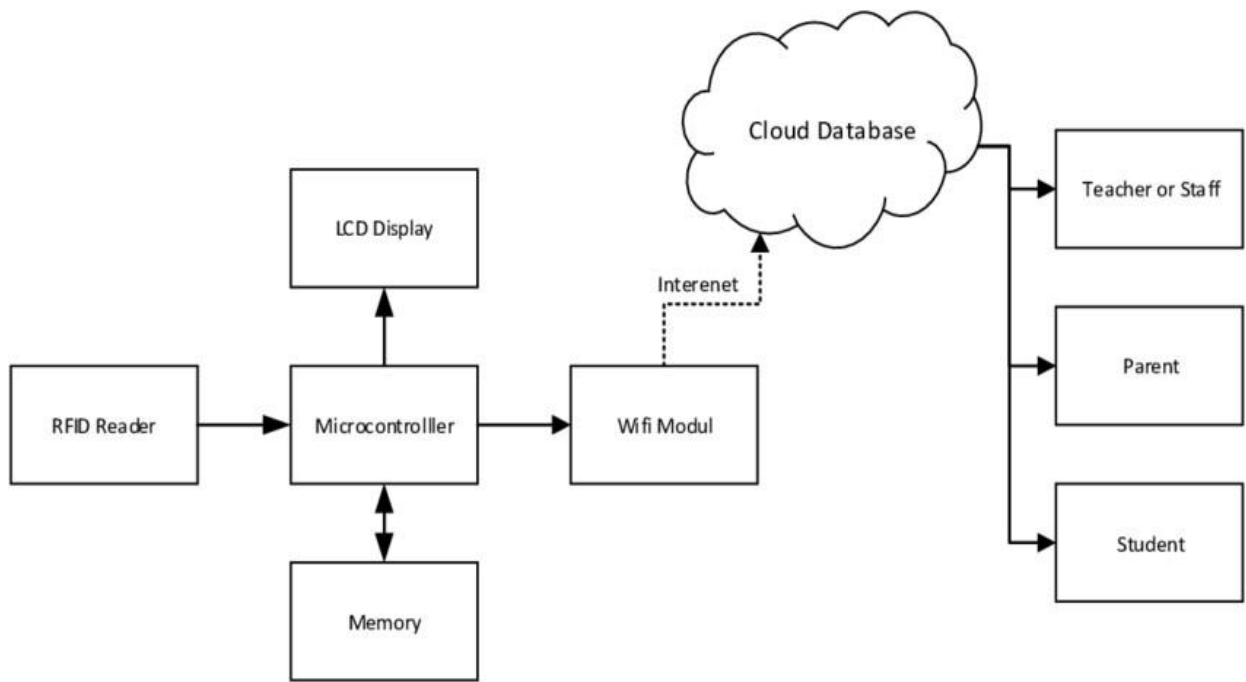


Fig 1.2 Architecture of Cloud

CHAPTER 2

Overall Description

2.1 Product Perspective:

- The product Attendances Management system is an independent product and does not depend on any other product or system. The product will automate various tasks associated with handling student details and better organizing the stored information and optimum performance, thus helping the Colleges to ensure smooth working of these processes.

2.2 Product Functions:

Our system has two types of accessing modes: - ○

Administrator

- User
- Teacher
- Student ○ Administrator:

Administrator have rights to manage student details, add a new student, provide register number for all students, assign each student a course etc., Administrator can update his profile, and also can give help to the teachers and students. ○ User:

There are two users: -

- Student: -Student do the login and see profile, Attendance Details etc.
- Teacher: -Add student, view the student details and take attendance student.

2.3 User Characteristics:

This software gives access to two kinds of users.

○ Administrator:

The administrators have features access to add, delete and modify information stored in the database. ○ Authorized User:

Teaching staffs have access to view the data stored in the database and can update the student's attendance in the form of formatted reports. Student has access to view the data stored in the database.

2.4 Constraints:

Interface is only in English; no other language option is available. User can login with his assigned username and password, no guest facilities is available.

2.5 Assumptions and Dependencies:

- We assume that the Office personnel do all the data entry based and the correct values obtained from forms and registers. We assume that the computers that will use the software will be part of the college LAN.
- Users with administrator access should be careful in deleting or modifying any information knowingly or unknowingly which will lead to inconsistency of the database. The end users of this software are assumed to have basic level of computer knowledge i.e., point and click.
-

CHAPTER 3

System Analysis:

3.1 Introduction:

- Analysis can be defined as breaking up of any whole so as to find out their nature, function etc. It defines design as preliminary sketches of; to sketch a pattern or outline for plan. To plan and carry out especially by artistic arrangement or in a skilful way. System analysis and design can be characterized as a set of techniques and processes, a community of interests, a culture and an intellectual orientation.
- The various tasks in the system analysis include the following. Understanding application. Planning. Scheduling. Developing candidate solution. Performing trade studies. Performing cost benefit analysis. Recommending alternative solutions. Supervising, installing and maintaining the system. This system manages to the analysis of the report creation and develops manual entry of the student attendance.
- First design the student's entry form, staff allocation and time table allocation forms. This project will help the attendance system for the department calculate percentage and reports for eligibility criteria of examination. The application attendance entry system will provide flexible report for all students.

3.2 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 find it difficult to use.

3.3 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. The efficient reports can be generated by using this proposed system. Advantages of Proposed System It is trouble-free to use. It is a relatively fast approach to enter attendance is highly reliable, approximate result from user best user Interface and efficient reports.

3.4 Feasibility Study:

- Feasibility analysis begins once the goals are defined. It starts by generating broad possible solutions, which are possible to give an indication of what the new system should look like. This is where creativity and imagination are used. Analysts must think up new ways of doing things- generate new ideas. There is no need to go into the detailed system operation yet.
- The solution should provide enough information to make reasonable estimates about project cost and give users an indication of how the new system will fit into the organization. It is important not to exert considerable effort at this stage only to find out that the project is not

worthwhile or that there is a need significantly change the original goal. Feasibility of a new system means ensuring that the new system, which we are going to implement, is efficient and affordable. There are various types of feasibility to be determined. They are-

3.4.1 Economically Feasibility

- Development of this application is highly economically feasible. The only thing to be done is making an environment with an effective supervision. It is cost effective in the sense that has eliminated the paper work completely.
- The system is also time effective because the calculations are automated which are made at the end of the month or as per the user requirement.

3.4.2 Technical feasibility

- The technical requirement for the system is economic and it does not use any other additional Hardware and software. Technical evaluation must also assess whether the existing systems can be upgraded to use the new technology and whether the organization has the expertise to use it. Install all upgrades framework into the time.
- Net package supported windows-based application. This application depends on Microsoft office and intranet service, database. Enter their attendance and generate report to excel sheet.

3.4.3 Operational Feasibility

- The system working is quite easy to use and learn due to its simple but attractive interface. User requires no special training for operating the system.
- Technical performance includes issues such as determining whether the system can provide the right information for the Department personnel student details, and whether the system can be organized so that it always delivers this information at the right place and on time using intranet services.

CHAPTER 4

Requirement Specifications

4.1 Hardware Requirements: - ○

RAM: - 2 GB

- Hard Disk: - 500 GB
- Processor: Intel core i3

4.2 Software Requirements:

- Operating System: Windows 10 Front Design: ○ Visual Studio 2008 Front-End Language:
- VB.NET Back-End Language: MySQL

4.3 Functional Requirements:

- Attendance Management System involves the following functions - Easily track attendance information of students. Quickly produce attendance bulletin.
- Use Case Diagram: -
- Admin Login Add/manage Students Add/manage Teachers Take Attendance Manage Attendance Report Generate Logout Student Teacher Admin

Use Case Diagram:-

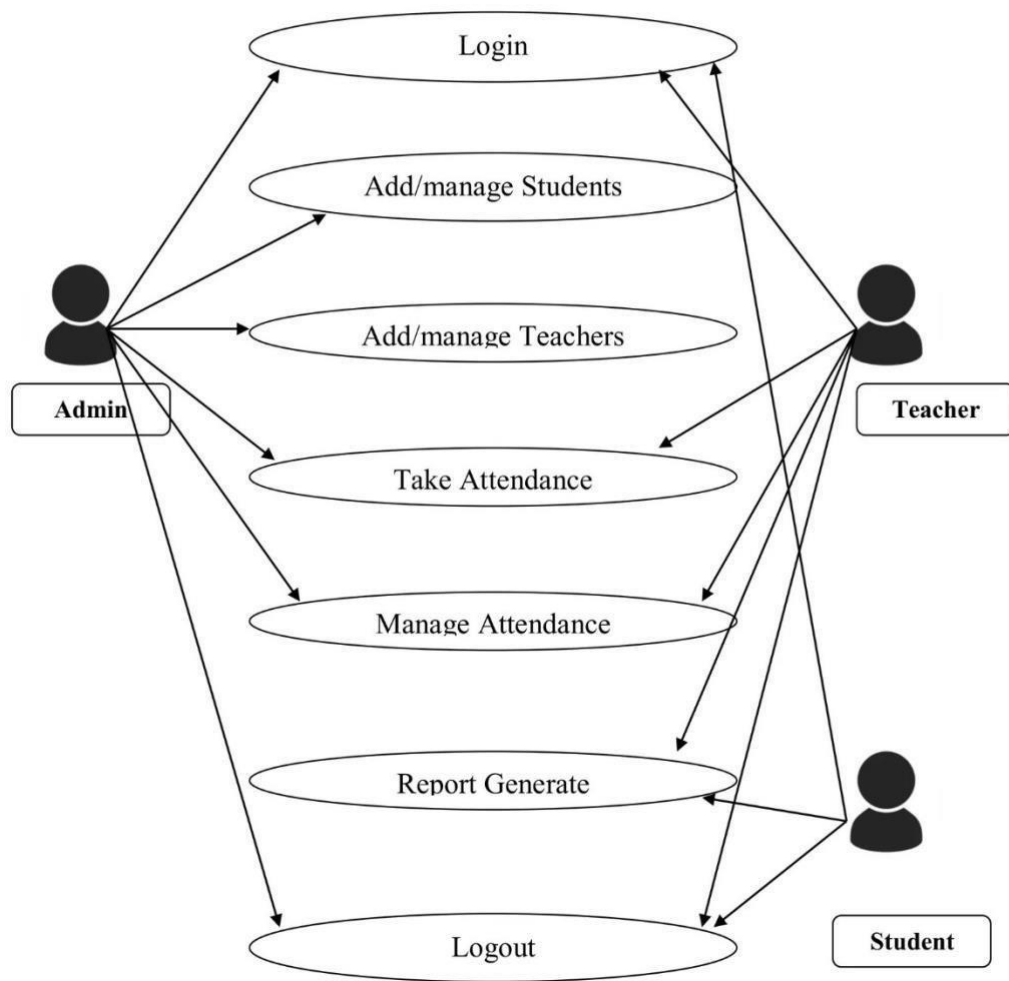


Fig 2 Use Diagram of Login to Logout

4.4 Non-Functional Requirements: -

4.4.1 Performance

- Easy tracking of records and updating can be done. All the requirements relating to performance characteristics of the system are specified in the section below. There are two types of requirements. Static Requirements These requirements do not impose any constraints on the execution characteristics of the System. They are: Number of Terminals The software makes use of an underlying database that will reside at the server, while the front end will be available online to the administrative and departmental computers as well as students and teachers.
- Number of Users: The number of users may vary, as this software finds applications in almost all department of the organization. Dynamic Requirements These specify constraints on the

execution characteristics of the system. They typically include response time and throughout of the system. Since these factors are not applicable to the proposed software, it will suffice if the response time is high and the transactions are carried out precisely and quickly.

4.4.2 Reliability

- The software will not be able to connect to the centralized database in the event that the college LAN fails or in the event of the server being down due to a hardware or software failure.

4.4.3 Availability

- The software will be available only to authorized users of the colleges like teachers to mark the students' attendance, student to view their enrolled course, admin to add an update students records.

4.4.4 Security

- The security requirements deal with the primary security. The software should be handled only by the administrator and authorized users. Only the administrator has right to assign permission like creating new accounts and generating password. Only authorized users can access the system with username and password.

4.4.5 Maintainability

- Backups for database are available.

4.4.6 Portability:

- The Software is a windows-based application and is built in VB.Net and MYSQL so it is platform independent and is independent of operating system.

4.5 Design Constraints:

- This software provides security. The login form prevents the system from being misused by unauthorized users. Only an authorized operator will be granted rights to modify as per requirements. This software is also reliable and fault tolerant. The system developed is designed to handle invalid inputs.
- Since reliability is major area of concern the system has a backup to avoid data loss. The user should know the programming language very well that is used to develop software.

CHAPTER 5

Software Description

5.1 Visual Studio 2008:

- Microsoft Visual Studio is an Integrated Development Environment (IDE) from Microsoft. It can be used to develop console and graphical user interface applications along with Windows form, applications, web sites, web applications, and web services in both native codes together with managed code for all platforms supported by Microsoft Windows, Windows Mobile, Windows CE, .NET Framework, .NET Compact Framework and Microsoft Silver light.
- Visual Studio includes a code editor supporting IntelliSense as well as code refactoring. The integrated debugger works both as a source-level debugger and a machine-level debugger. Other built-in tools include a forms designer for building GUI applications, web designer, class designer, and database schema designer. It allows plug-ins to be added that enhance the functionality at almost every level - including adding support for source control systems (like Subversion and Visual SourceSafe) to adding new toolsets like editors and visual designers for domain-specific languages or toolsets for other aspects of the software development lifecycle (like the Team Foundation Server client: Team Explorer).
- Visual Studio functions as the code editing area, form designer, code validator, compiler and library browser for a software development project. It supports languages by means of language services, which allow any programming language to be supported (to varying degrees) by the code editor and debugger, provided a language-specific service has been authored. In this course we will be exploring installation, initialization, and basic use of the IDE for the purpose of writing VB.NET software.

5.1.1 Fast & Smart Code Editing

- The Visual Studio indents lines, matches words and brackets, and highlights source code syntactically and semantically. It lets you easily refactor code, with a range of handy and powerful tools, while it also provides code templates, coding tips, and code generators. Easy & Efficient Project Management Keeping a clear overview of large applications, with maximum numbers of folders and files, and 12 maxima of lines of code, is a daunting task.
- Visual Studio provides different views of your data, from multiple project windows to helpful tools for setting up your applications and managing them efficiently, letting you drill down into your data quickly and easily, while giving you versioning tools via Subversion, Mercurial, and integration out of the box. When new developers join your project, they can understand the structure of your application because your code is well-organized.

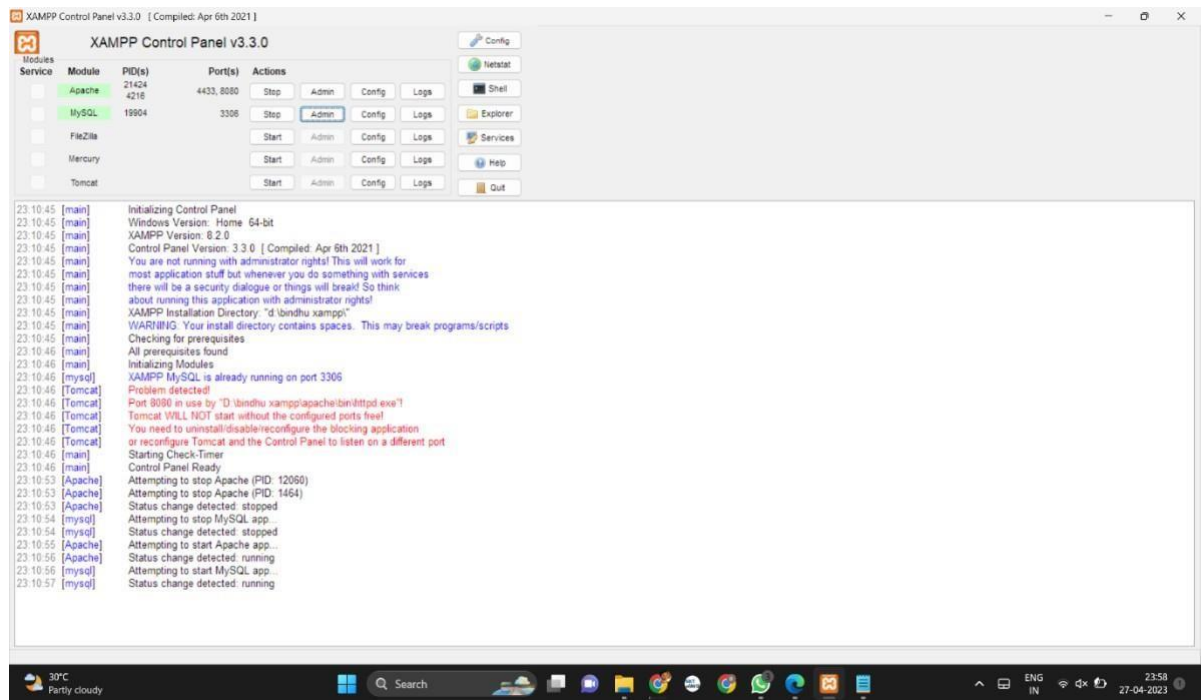


Fig 3 Running Xampp

5.2 MYSQL

5.2.1 Introduction MySQL

- It is a Relational Database Management System (RDBMS). RDBMS means R--DB--MS. R stands for Relational. DB stands for Database, a repository for the information store. The data in a database is organized into tables, and each table is organized into rows and columns. Each row in a table is called a record. A record may contain several pieces (called fields) of information, and each column in a table is known as a field.
- MS stands for Management System, the software that allows you to insert, retrieve, modify, or delete records. R stands for Relational, indicates a particular kind of DBMS that is good at relating information stored in one table to information stored in another table by looking for elements common to each of them. Relational DBMS has the advantage of efficient storage, and retrieval mechanisms for data, and uses normalization process during design of RDBMS.

5.2.2 Features of MySQL Speed:

- Of course, the speed at which a server-side program runs depends primarily on the server hardware. Given that the server hardware is optimal, MySQL runs very fast. It supports clustered servers for demanding applications. Ease of use MySQL is a high-performance, relatively simple database system. From the beginning, MySQL has typically been configured, monitored, and managed from the command line.
- However, several MySQL graphical interfaces are available as described below: MySQL Administrator: This tool makes it possible for administrators to set up, evaluate, and tune their MySQL database server. This is intended as a replacement for mysqladmin. MySQL Query Browser: Provides database developers and operators with a graphical database operation interface. It is especially useful for seeing multiple query plans and result sets in a single user interface. Configuration Wizard: Administrators can choose from a predefined list of optimal settings, or create their own.
- MySQL System Tray: Provides Windows-based administrators a single view of their MySQL instance, including the ability to start and stop their database servers. Cost MySQL is available

free of cost. MySQL is a "Open Source" database. MySQL is part of LAMP (Linux, Apache, MySQL, PHP / Perl / Python) environment, a fast-growing open-source enterprise software stack.

- More and more companies are using LAMP as an alternative to expensive proprietary software stacks because of its lower cost, reliability, and documentation. Query Language Support MySQL understands standards-based SQL (Structured Query Language). Capability Many clients can connect to the server at the same time. Clients can use multiple databases simultaneously. You can access MySQL using several interfaces such as command-line clients, Web browsers. Connectivity and security MySQL is fully networked, and database can be accessed from anywhere on the Internet, so you can share your data with anyone, anywhere.
- The connectivity could be achieved with Windows programs by using ODBC drivers. By using the ODBC connector to MySQL, any ODBC-aware client application (for example, Microsoft Office, report writers, Visual Basic) can connect to MySQL. Portability MySQL runs on many varieties of UNIX, as well as on other non-UNIX systems, such as Windows and OS/1. MySQL runs on hardware from home PCs to high-end server. MySQL can be installed on Windows XP, Windows Server 1003, Red Hat Fedora Linux, Debian Linux, and others. MySQL is Open-Source Software Open-Source means that it is possible for anyone to use and modify.
- Anybody can download MySQL from the Internet and use it without paying anything. Anybody so inclined can study the source code and change it to fit their needs. MySQL uses the GPL (GNU General Public License) to define what you may and may not do with the software in different situations. If you feel uncomfortable with the GPL or need to embed MySQL into a commercial application you can buy a commercially licensed version from us. Why use MySQL is very fast, reliable, and easy to use.
- If that is what you are looking for, you should give it a try. MySQL also has a very practical set of features developed in very close cooperation with our users. MySQL was originally developed to handle very large databases much faster than existing solutions and has been successfully used in highly demanding production environments for several years. Though under constant development, MySQL today offers a rich and very useful set of functions.
- The connectivity, speed, and security make MySQL highly suited for accessing databases on the Internet. The technical features of MySQL, MySQL is a client/server system that consists of a multi-threaded SQL server that supports different back ends, several different client programs and libraries, administrative tools, and several programming interfaces. We also provide MySQL as a multi-threaded library which you can link into your application to get a smaller, faster, easier to manage product. MySQL has a lot of contributed software available.

CHAPTER 6

Design

6.1 Data Flow Diagram:

6.1 0-level DFD

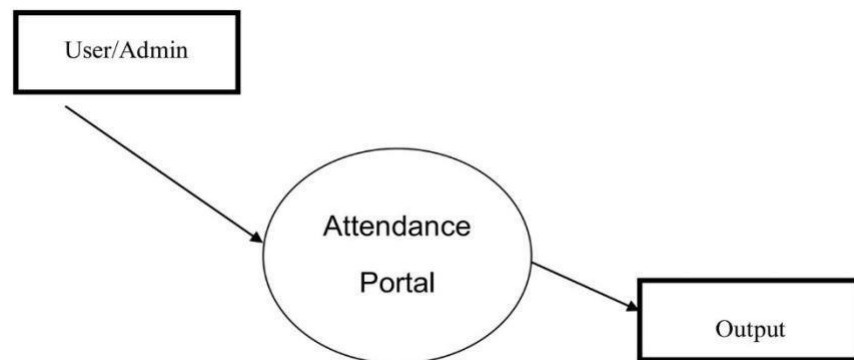


Fig 5 User/Admin Use Case Diagram

6.1.1 -level DFD

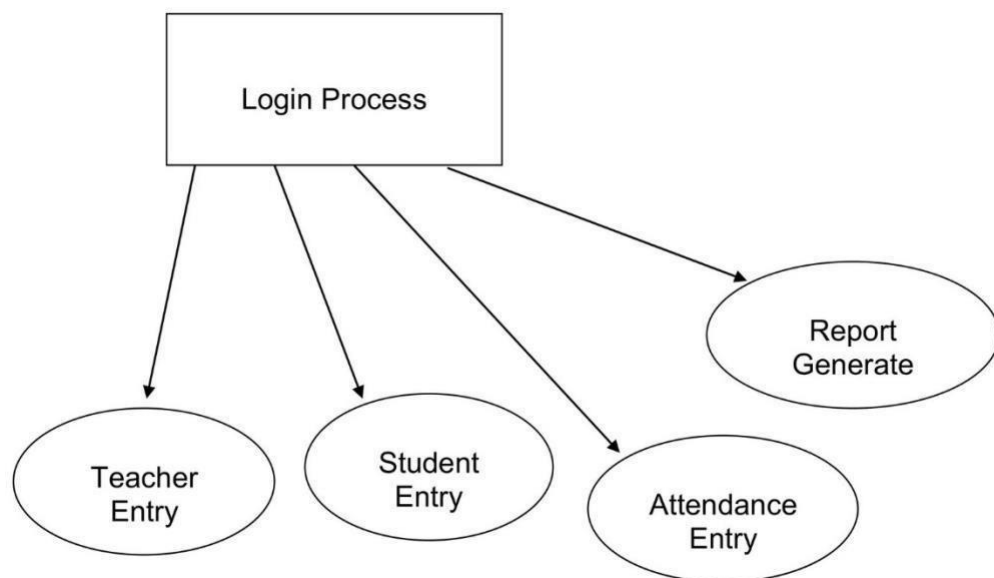


Fig 6 Login Process

- User/Admin Output Attendance Portal Login Process Teacher Entry Student Entry Report Generate Attendance Entry.

6.1.2-level DFD

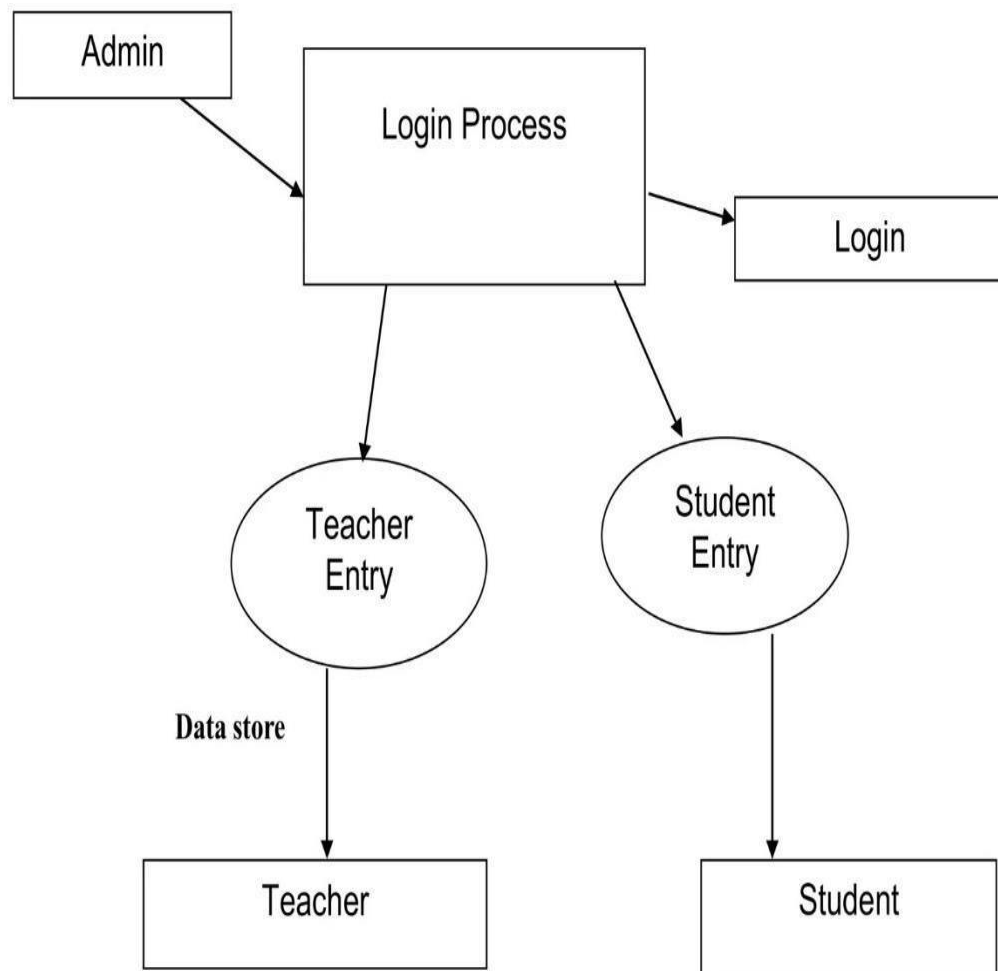


Fig 6.1 Admin Use Case Diagram

- Data store Login Process Admin Login Teacher Entry Student Entry Teacher Student.

6.1.3-level DFD

- Data store Teacher Login Process Attendance Entry Report Generate Attendance.

6.2 E-R Diagram:

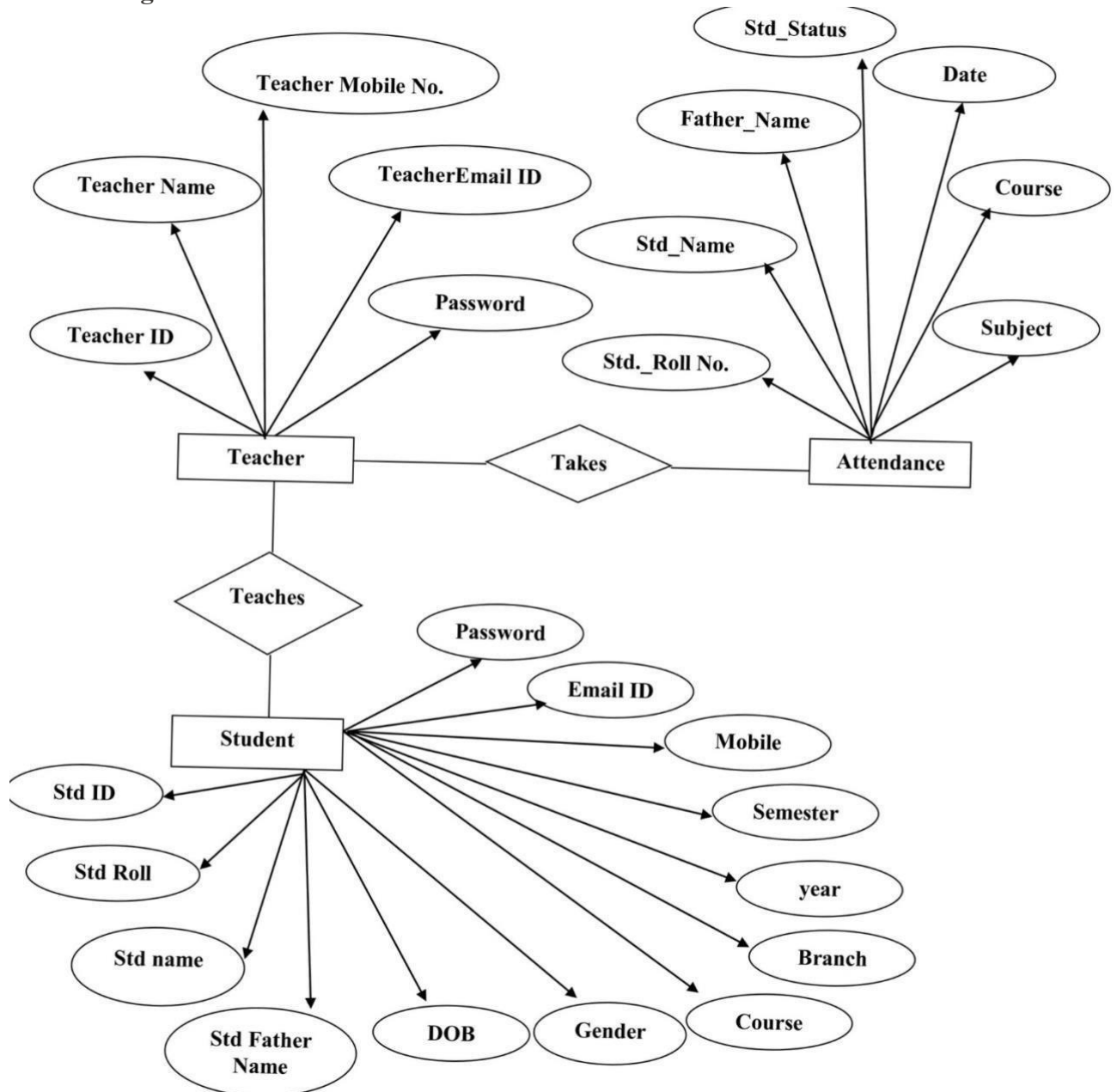


Fig 6.2 E-R Use Diagram

- Teacher Teacher ID Teacher Name Teacher Mobile No. Attendance Student Teaches Takes Teacher Email ID Password Std. _Roll No. Std_Name Father Name Std_Status Date Course Subject Std ID Std Roll no. Std name Std Father Name DOB Gender Course Branch year Semester Mobile no. Email ID Password

6.3 Input Design:

- Input design is part of overall system design that requires special attention designing input data is to make the data entered easy and free from errors. The input forms are designed using the controls available in .NET framework. Input design is the process of converting the user originated inputs to a computer-based format.

- A system user interacting through a workstation must be able to tell the system whether to accept the input to produce reports. The collection of input data is considered to be most expensive part of the system design. Since the input has to be planned in such a manner so as to get relevant information, extreme care is taken to obtain pertinent information.
- This project first will enter to the input of allocation forms it will be created on student details form and subject entry form, time table form. It will helps to calculate subject wise attendance system.

6.4 Output Design:

- Output design this application “Student Attendance management system” generally refers to the results and information that are generated by the system for many end-users; output is the main reason for developing the system and the basis on which they evaluate the usefulness of the application.
- The output is designed in such a way that it is attractive, convenient and informative. Forms are designed with various features, which make the console output more pleasing. As the outputs are the most important sources of information to the users, better design should improve the system’s relationships with us and also will help in decision making. Form design elaborates the way output is presented and the layout available for capturing information.
- One of the most important factors of the system is the output it produces. This system refers to the results and information generated. Basically, the output from a computer system is used to communicate the result of processing to the user. Attendance management system to show the report subject wise attendance maintaining by staffs. Taken as a whole report obtains on a administrator privileges only.

CHAPTER 7

Database Table

7.1 Login Table:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
☐ 1	usertype	varchar(100)	latin1_swedish_ci		No	None			Change Drop Primary Unique Index More
☐ 2	username	varchar(350)	latin1_swedish_ci		No	None			Change Drop Primary Unique Index More
☐ 3	password	varchar(20)	latin1_swedish_ci		No	None			Change Drop Primary Unique Index More

Fig 7.1 Login Table 7.2

Teacher Table:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
☐ 1	TeacherID	int(11)			No	None		AUTO_INCREMENT	Change Drop Primary More
☐ 2	Teacher	varchar(250)	latin1_swedish_ci		No	None			Change Drop Primary More
☐ 3	MobileNo	int(10)			No	None			Change Drop Primary More
☐ 4	Email	varchar(250)	latin1_swedish_ci		No	None			Change Drop Primary More
☐ 5	Password	varchar(20)	latin1_swedish_ci		No	None			Change Drop Primary More

Fig 7.2 Teacher Table

7.3 Student Table:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
☐ 1	Student ID	int(11)			No	None		AUTO_INCREMENT	Change Drop Primary More
☐ 2	Roll No	int(11)			No	None			Change Drop Primary More
☐ 3	Student Name	varchar(350)	latin1_swedish_ci		No	None			Change Drop Primary More
☐ 4	Father Name	varchar(250)	latin1_swedish_ci		No	None			Change Drop Primary More
☐ 5	DOB	varchar(11)	latin1_swedish_ci		No	None			Change Drop Primary More
☐ 6	Gender	varchar(40)	latin1_swedish_ci		No	None			Change Drop Primary More
☐ 7	Course	varchar(40)	latin1_swedish_ci		No	None			Change Drop Primary More
☐ 8	Branch	varchar(150)	latin1_swedish_ci		No	None			Change Drop Primary More
☐ 9	Year	varchar(40)	latin1_swedish_ci		No	None			Change Drop Primary More
☐ 10	Semester	varchar(40)	latin1_swedish_ci		No	None			Change Drop Primary More
☐ 11	Mobile No	int(10)			No	None			Change Drop Primary More
☐ 12	Email	varchar(300)	latin1_swedish_ci		No	None			Change Drop Primary More
☐ 13	Address	varchar(500)	latin1_swedish_ci		No	None			Change Drop Primary More
☐ 14	Password	varchar(20)	latin1_swedish_ci		No	None			Change Drop Primary More

Fig 7.3 Student Table

7.4 Attendance Table:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
☐ 1	RollNo	varchar(30)	latin1_swedish_ci		No	None			Change Drop Primary Unique More
☐ 2	StudentName	varchar(400)	latin1_swedish_ci		No	None			Change Drop Primary Unique More
☐ 3	FatherName	varchar(400)	latin1_swedish_ci		No	None			Change Drop Primary Unique More
☐ 4	Attendance Status	varchar(50)	latin1_swedish_ci		No	None			Change Drop Primary Unique More
☐ 5	Date	date			No	None			Change Drop Primary Unique More
☐ 6	SubjectName	varchar(150)	latin1_swedish_ci		No	None			Change Drop Primary Unique More
☐ 7	TeacherName	varchar(300)	latin1_swedish_ci		No	None			Change Drop Primary Unique More

Fig 7.4 Attendance Table

7.5 Course Table:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
☐ 1	course	varchar(130)	latin1_swedish_ci		No	None			Change Drop Primary Unique Index More
☐ 2	branch	varchar(500)	latin1_swedish_ci		No	None			Change Drop Primary Unique Index More
☐ 3	year	varchar(80)	latin1_swedish_ci		No	None			Change Drop Primary Unique Index More
☐ 4	semester	varchar(200)	latin1_swedish_ci		No	None			Change Drop Primary Unique Index More

Fig 7.5 Course Table

CHAPTER 8

Project Description

8.1 Problem Definition:

- This system developed will reduce the manual work and avoid redundant data. By maintaining the attendance manually, then efficient reports cannot be generated. The system can generate efficient weekly, consolidate report based on the attendance.
- As the attendances are maintained in registers it has been a tough task for admin and staff to maintain for long time. Instead, the software can keep long and retrieve the information when needed.

8.2 Project Overview:

- Attendance Management System basically has two main modules for proper functioning Admin module is has rights for creating any new entry of faculty and student details. User has a right of making daily attendance, generating report.
- Attendance report can be taken by given details of student details, date, and class.

8.3 Module Description:

- The system should be designed in such a way that only authorized people should be allowed to access some particular modules. The records should be modified by only administrators and no one else.
- The user should always be in control of the application and not the vice versa. The user interface should be consistent so that the user can handle the application with ease and speed. The application should be visually, conceptually clear.

8.3.1 Administrator module Student Details

- In this module deals with the allocation of roll no and personal details for new batch. It will generate of personal details and academic details of the students. Teacher Details It helps to allot the subject and the subject code to the particular staffs. It provides the facility to have a user name and password to the staffs.
- Report details Report can be taken by daily, weekly and consolidate: Weekly report get all hour details of attendance starting date to ending date and display the status Consolidate report get all student attendance details starting date to ending date status help for the eligibility criteria of the student to attend the examination.

8.3.2 Teacher module

- Attendance details It assists the staff to mark attendance to the students for their subject. This will authenticate the staff before making the entry. Report details Weekly report get details of attendance from starting date to ending date and display the status. Consolidate report get all student attendance details from starting date to ending date status help for the eligibility criteria of the student to attend the examination.

8.3.3 Student module

- Generate report; get details of attendance from starting date to ending date and display the status.

CHAPTER 9

System Testing

9.1 Introduction:

- Once source code has been generated, software must be tested to uncover (and correct) as many errors as possible before delivery to customer. Our goal is to design a series of test cases that have a high likelihood of finding errors. To uncover the errors software techniques are used. These techniques provide systematic guidance for designing test that Exercise the internal logic of software components, and exercise the input and output domains of the program to uncover errors In program function, behaviour and performance.
- Internal program logic is exercised using —White box test case design Techniques. Software requirements are exercised using —block box test case Design techniques. In both cases, the intent is to find the maximum number of errors with the Minimum amount of effort and time.

9.2 Testing Methodologies:

- A strategy for software testing must accommodate low-level tests that are necessary to verify that a small source code segment has been correctly implemented as well as high-level tests that validate major system functions against customer requirements. A strategy must provide guidance for the practitioner and a set of milestones for the manager.
- Because the steps of the test strategy occur at a time when deadline pressure begins to rise, progress must be measurable and problems must surface as early as possible. Following testing techniques are well known and the same strategy is adopted during this project testing.

9.2.1 Unit testing

- Unit testing focuses verification effort on the smallest unit of software design- the software component or module. The unit test is white-box oriented. The unit testing implemented in every module of student attendance management System.
- By giving correct manual input to the system, the data are stored in database and retrieved. If you want required module to access input or gets the output from the End user. Any error will accrue the time will provide handler to show what type of error will be accrued.

9.2.2 System testing

- System testing is actually a series of different tests whose primary purpose is to fully exercise the computer-based system. Below we have described the two types of testing which have been taken for this project.
- It is to check all modules worked on input basis. if you want change any values or inputs will change all information. so specified input is must.

9.2.3 Performance Testing

- Performance testing is designed to test the run-time performance of software within the context of an integrated system. Performance testing occurs throughout all steps in the testing process. Even at the unit level, the performance of an individual module may be assessed as white-box tests are conducted.
- This project reduces attendance table, codes. it will generate report fast.no have extra time or waiting of results. entered correct data will show result few milliseconds. just used only low memory of our system. Automatically do not getting access at another software. Get user permission and access to other applications.

CHAPTER 10 System Maintenance

- Software maintenance is far more than finding mistakes. Provision must be made for environment changes which may affect either the computer, or other parts of the computer-based systems. Such activity is normally called maintenance.
- It includes both the Improvement of the system functions and the corrections of faults which arise during the operation of a new system. It may involve the continuing involvement of a large proportion of computer Department recourses. The main task may be to adapt existing system in a changing environment. Back up for the entire database files are taken and stored in storage devices like Flash drives, pen drives and disks so that it is possible to restore the system at the earliest.
- If theirs is a breakdown or collage, then the system gives provision to restore database files. Storing data in a Separate secondary device leads to an effective and efficient maintains of the system. The nominated person has sufficient knowledge of the organization's computer passed proposed change.

CHAPTER 11

Snapshots:

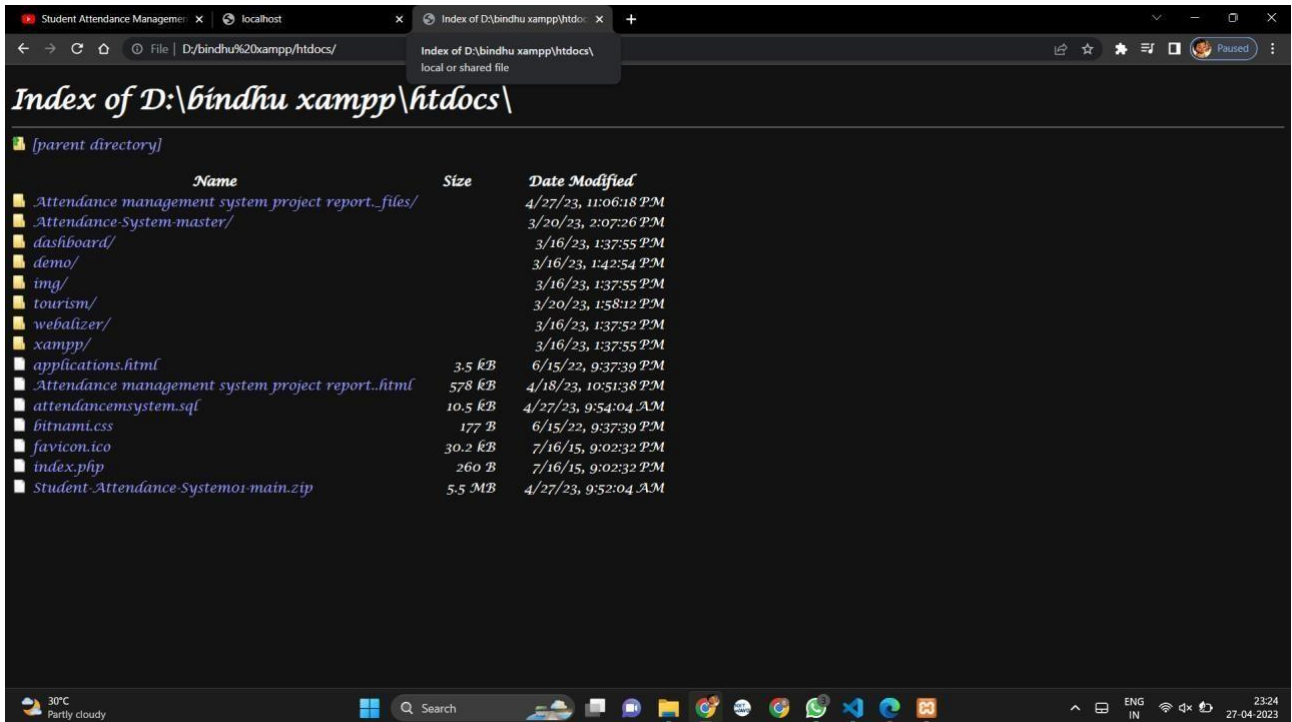


Fig 8 Index Page(1)

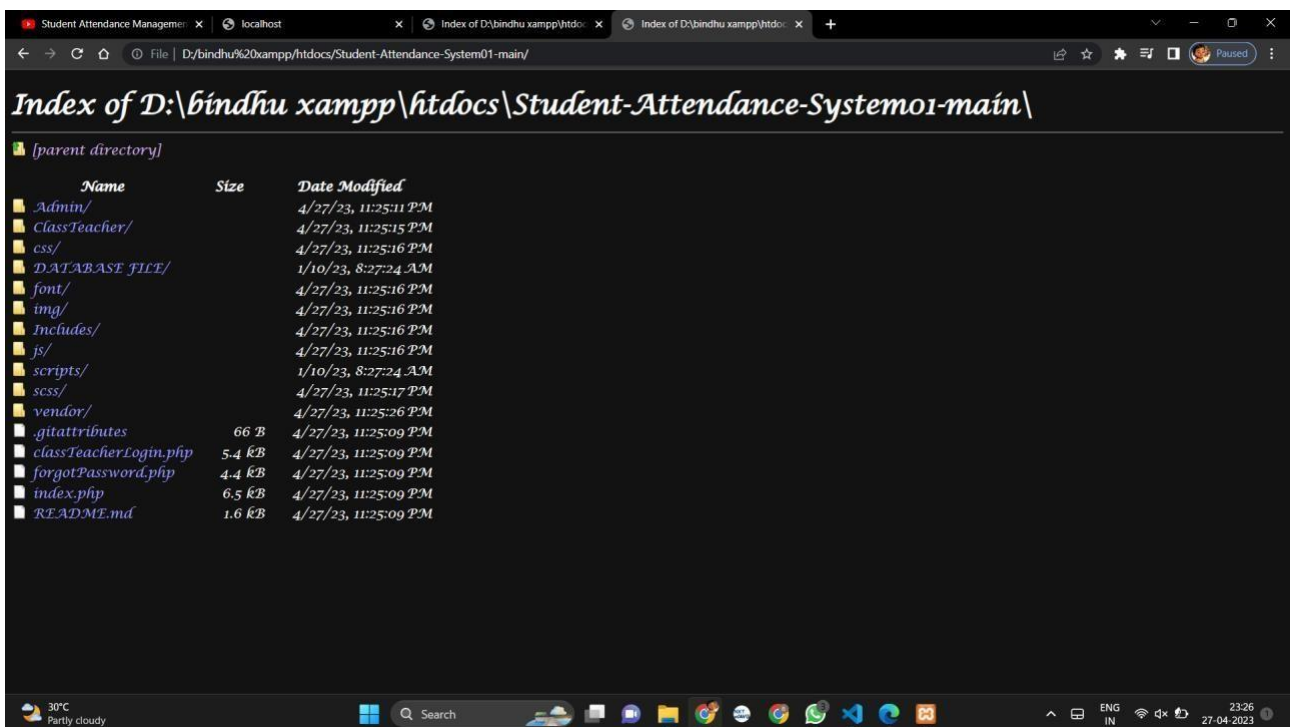


Fig 9 Index Page(2)

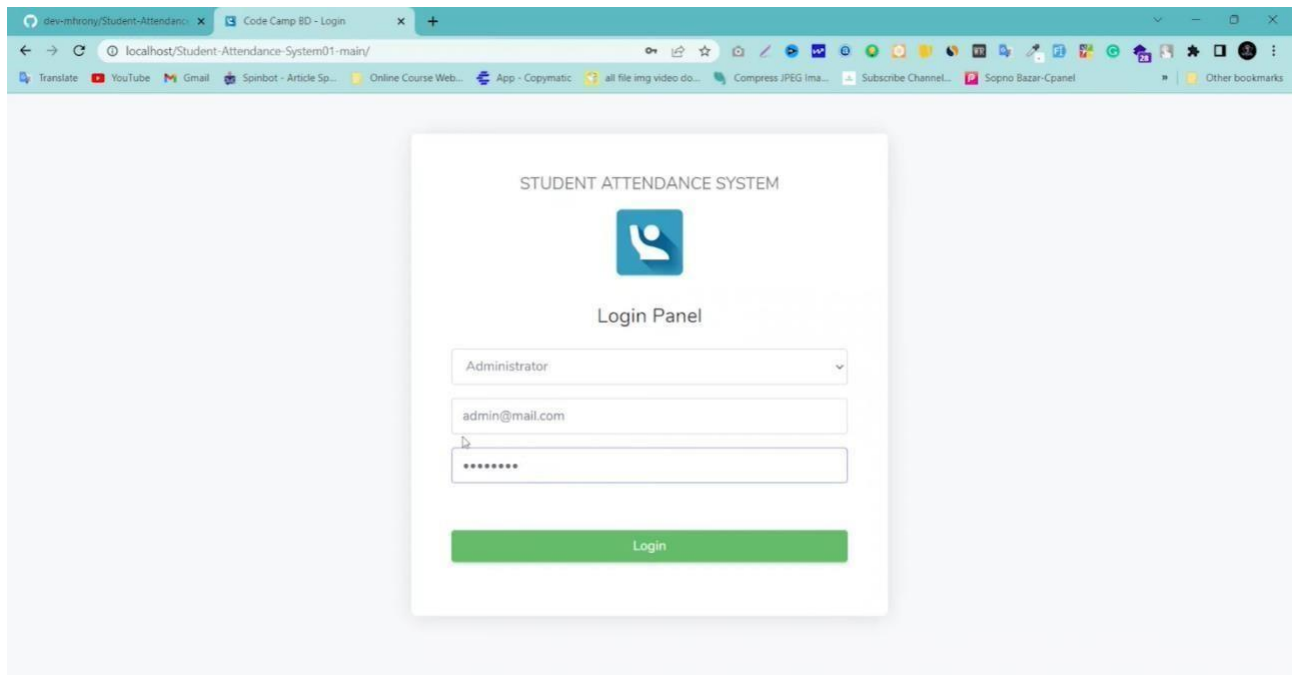


Fig 10 Login Page

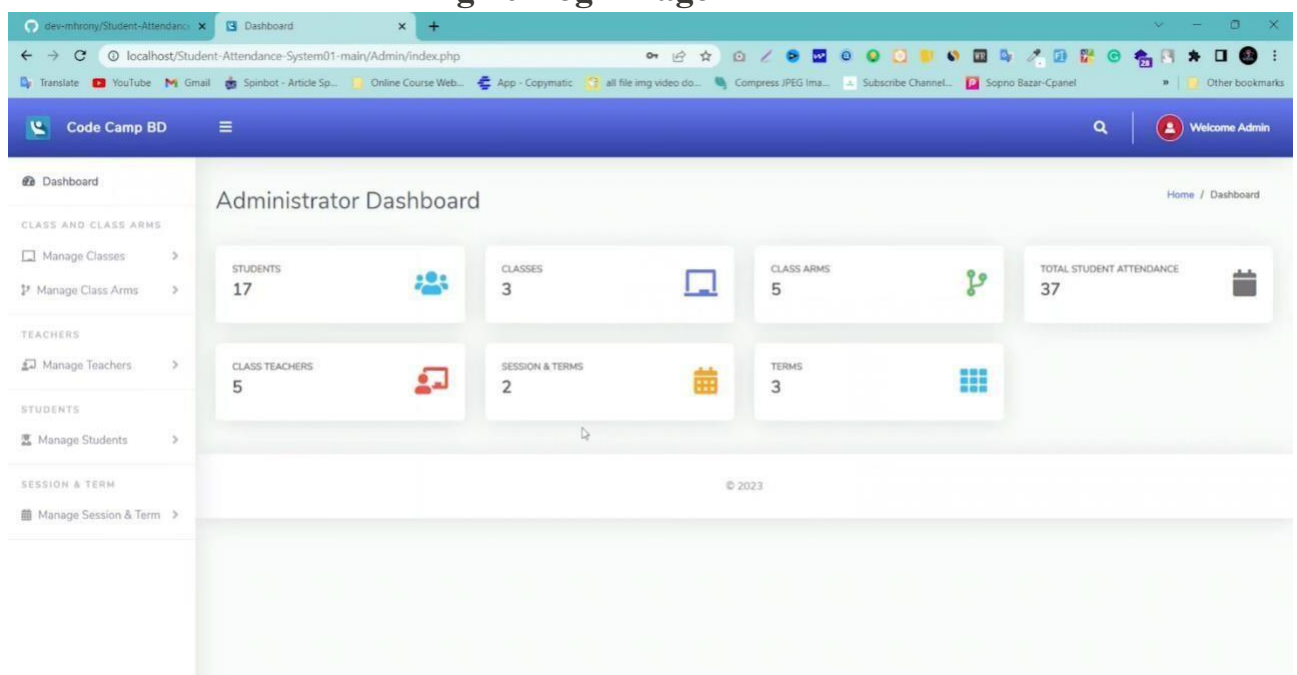


Fig 11 Admin Page

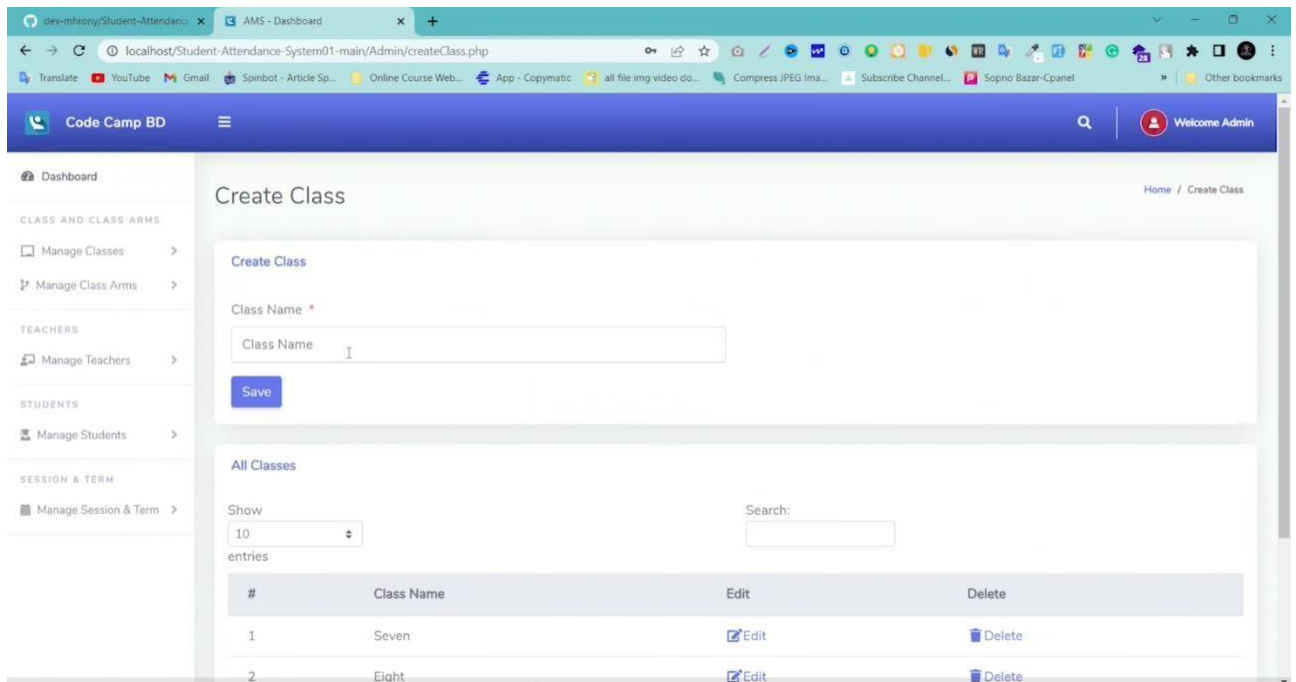


Fig 12 Create Class

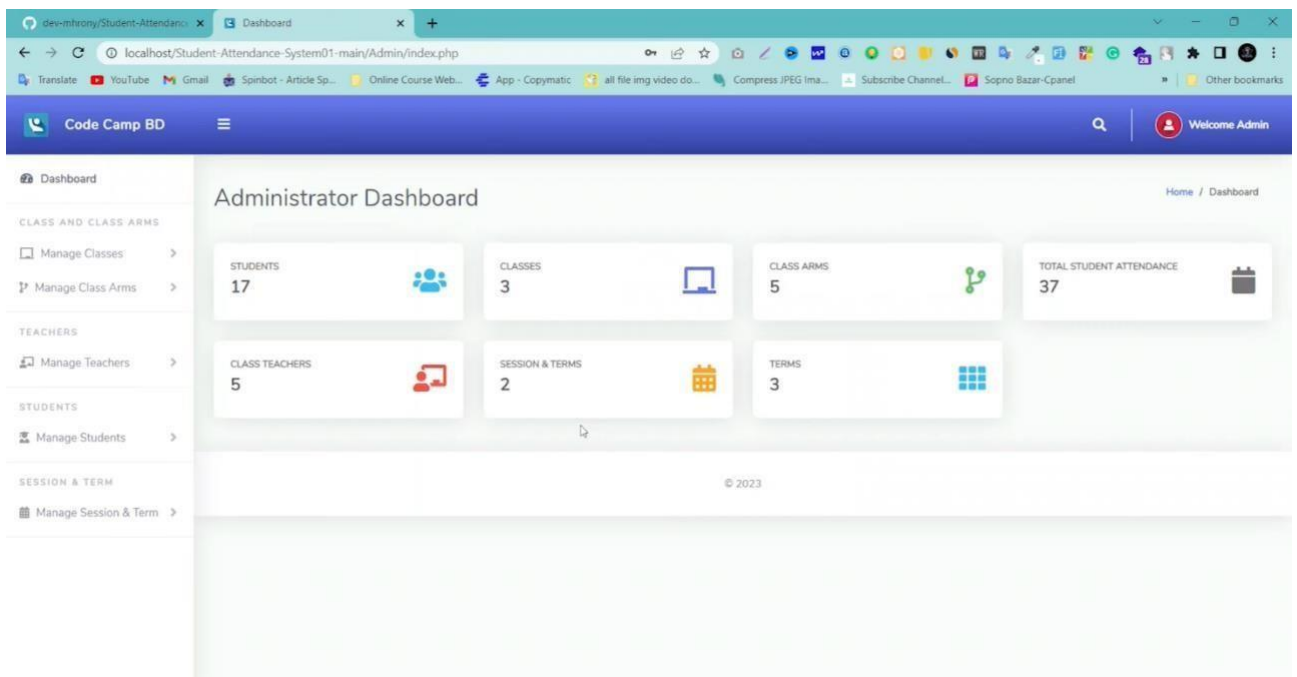


Fig 13 Dashboard

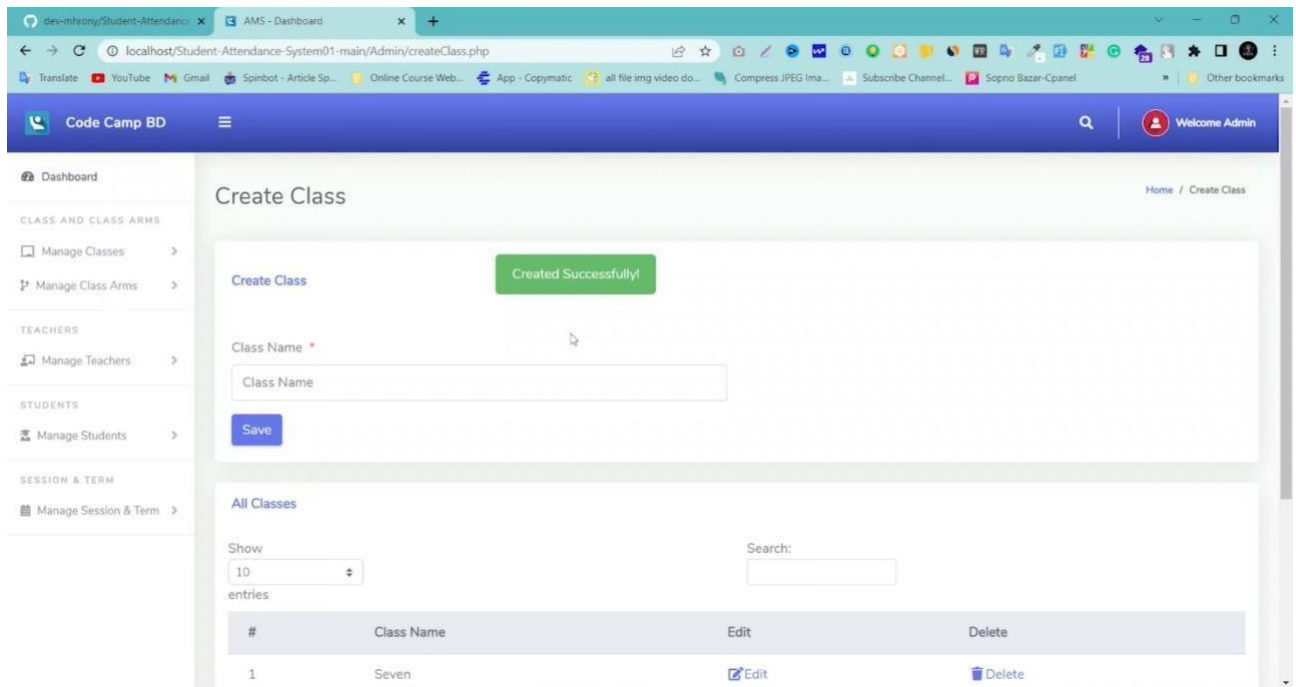


Fig 14 Create Class

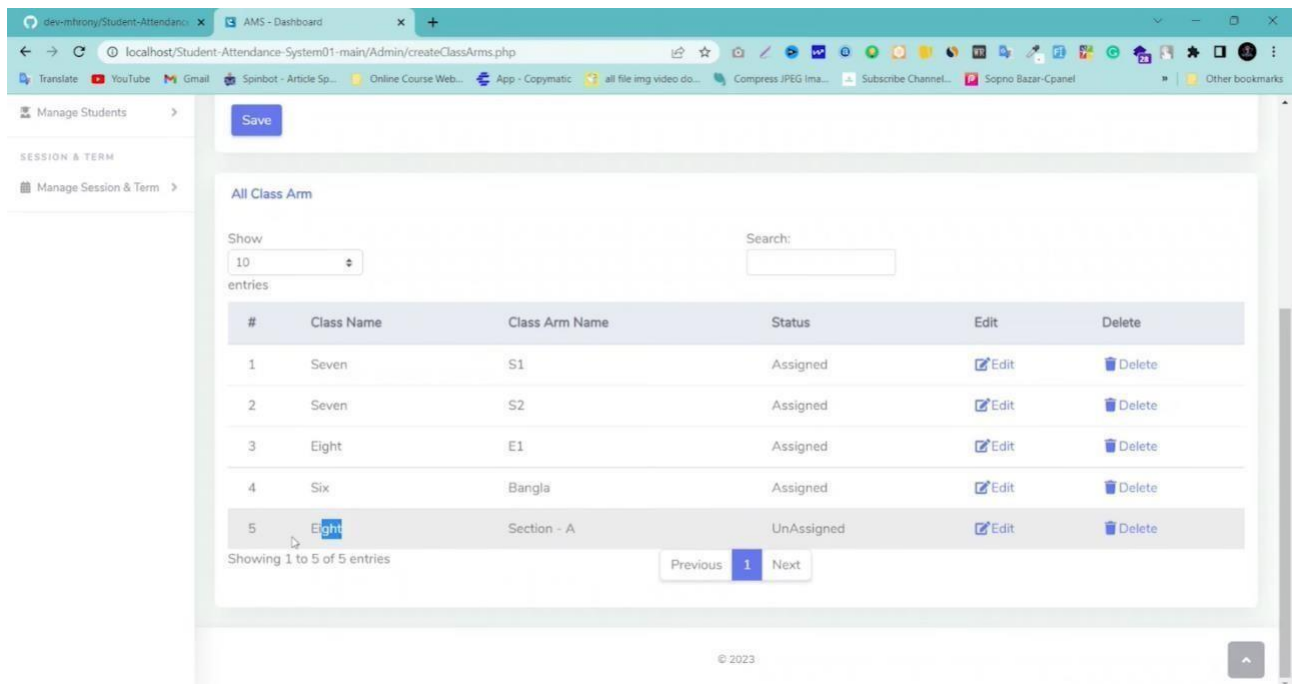


Fig 15 Class Table

Create Class Teachers

Firstname *
 Lastname *
 Email Address *
 Phone No *
 Select Class *
 Class Arm *

Save

All Class Teachers

Show Search:

Fig 16 Class Teachers

Show 10 entries Search:

#	First Name	Last Name	Email Address	Phone No	Class	Class Arm	Date Created	Delete
1	Will	Kibagendi	teacher2@mail.com	09089898999	Seven	S1	2022-10-31	
2	Demola	Ade	teacher3@gmail.com	09672002882	Seven	S2	2022-11-01	
3	Ryan	Mbeche	teacher4@mail.com	7014560000	Eight	E1	2022-10-07	
4	Md. Mehedi	Hasan	mh.rony.dhanvi@gmail.com	01608445456	Eight	Section - A	2023-01-09	
5	Md.	Rahul	abc@gmail.com	01608445456	Six	Bangla	2023-01-09	

Showing 1 to 5 of 5 entries Previous 1 Next

Fig 17 Teacher Table

Create Students

This Email Address Already Exists!

Firstname *

Lastname *

Other Name *

Admission Number *

Select Class *

Class Arm *

[Save](#)

All Student

Show: entries

Search:

Fig 18 Create Students

Create Class

Class Name *

[Save](#)

All Classes

Show: entries

Search:

#	Class Name	Edit	Delete
1	Seven	Edit	Delete
2	Eight	Edit	Delete
3	Six	Edit	Delete

Showing 1 to 3 of 3 entries

[Previous](#) [1](#) [Next](#)

Fig 19 Create Class CHAPTER 12 Conclusion

Conclusion:

- The Attendance Management System is developed using Visual Basic.NET fully meets the objectives of the system which it has been developed. The system has reached a steady state where all bugs have been eliminated. The system is operated at a high level of efficiency and all the teachers and user associated with the system understands its advantage. The system solves the problem. It was intended to solve as requirement specification.

Scope for future development:

- The project has a very vast scope in future. The project can be implemented on intranet in future. Project can be updated in near future as and when requirement for the same arises, as it is very flexible in terms of expansion.
- With the proposed software of database Space Manager ready and fully functional the client is now able to manage and hence run the entire work in a much better, accurate and error free manner.

CHAPTER 13

References

1. Declaration ---<https://www.slideshare.net>
2. Introduction to visual studio [Microsoft.com/Wikipedia.com](https://www.microsoft.com/Wikipedia.com)
3. Introduction to MySQL <https://www.tutorialsworld.com>
4. homepage Design <https://meeraacademy.com/>
5. pictures/images Google Image Search
6. SQL Database WampServer
7. Some contents of YouTube.