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Chapter I: Introduction

1.1 Introduction

School Management System is the system which manage students, Fees, teachers, classes, subjects, hostels and many more. Here, the user can use the features of CRUD and manage students, fees, bank, teachers, subjects, classes, streams, hostel, timetable, events, notices/announcement, exam result, fee structure, attendance. Login sessions can also be viewed from the admin panel. Now talking about all the main functions of the system that is the feature to add, edit, delete and view students, teachers, classes, hostels, streams, and management of Fees. While adding a student, the user has to provide full name, select gender, and date of birth, attach photos, registration number, select class, stream, and hostel, date of joining, category, academic year, total fees, advance fees, balance, and parents.

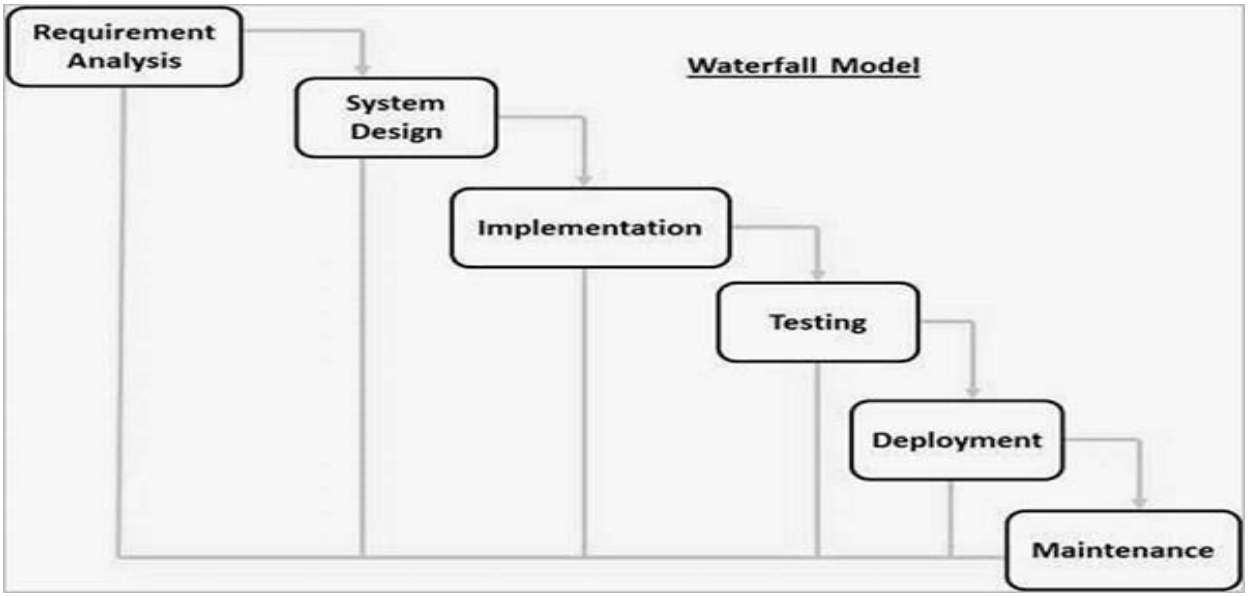
1.2 Objective

This is a web oriented application allows us to access the whole information about the school, staffs, students, facilities etc. This application provides a virtual tour of school. Here we will get the latest information about the students, members and staffs. This generic application designed for assisting the students of an institute regarding information on the courses, subjects, classes, assignments, grades and timetable. It also provides support that a faculty can also check about his daily schedule, can upload assignments, and notices to the students. Here administrator will manage the accounts of the student and faculties, makes the timetable, and upload the latest information about the school.

1.3 Needs of School Management System

This system will help administration to work easily. Because of its easy access and less time consuming administration can get the information of the students, members, hostel, subject, attendance etc. They do not have to search in the paper file for the log time. Members an easily handle the system.

1.4 Methodology Development Model



The sequential phases in Waterfall model are −

Requirement Gathering and analysis − All possible requirements of the system to be developed are captured in this phase and documented in a requirement specification document.

- **System Design** − The requirement specifications from first phase are studied in this phase and the system design is prepared. This system design helps in specifying hardware and system requirements and helps in defining the overall system architecture.
- **Implementation** − With inputs from the system design, the system is first developed in small programs called units, which are integrated in the next phase. Each unit is developed and tested for its functionality, which is referred to as Unit Testing.
- **Integration and Testing** − All the units developed in the implementation phase are integrated into a system after testing of each unit. Post integration the entire system is tested for any faults and failures.
- **Deployment of system** − Once the functional and non-functional testing is done; the product is deployed in the customer environment or released into the market.

- **Maintenance** − There are some issues which come up in the client environment. To fix those issues, patches are released. Also to enhance the product some better versions are released. Maintenance is done to deliver these changes in the customer environment.

1.5 Tools and Technique

a. Php
b. Xampp
c. Mysql yog
d. HTML
e. Bootstrap
f. Sublime text
g. Git hub
h. Java Script
i. Css

Php

Hypertext Preprocessor (or simply **PHP**) is a server-side scripting language designed for Web development, but also used as a general-purpose programming language. It was originally created by Rasmus Lerdorf in 1994,[] the PHP reference implementation is now produced *by* The PHP Group. PHP originally stood for Personal *Home Page*,[] but it now stands for the recursive acronym *PHP: Hypertext Preprocessor*.

PHP code may be embedded into HTML code, or it can be used in combination with various web template systems, web content management systems, and web frameworks. PHP code is usually processed by a PHP interpreter implemented as a module in the web server or as a Common Gateway Interface (CGI) executable. The web server combines the results of the interpreted and executed PHP code, which may be any type of data, including images, with the generated web page. PHP code may also be executed with a command-line interface (CLI) and can be used to implement standalone graphical applications.

Xampp

XAMPP is a free and open source cross-platform web server solution stack package developed by Apache Friends, consisting mainly of the Apache HTTP Server, MariaDB database, and interpreters for scripts written in the PHP and Perl programming languages. XAMPP stands for Cross-Platform (X), Apache (A), MariaDB (M), PHP (P) and Perl (P). It is a simple, lightweight Apache distribution that makes it extremely easy for developers to create a local web server for testing and deployment purposes. Everything needed to set up a web server – server application (Apache), database (MariaDB), and scripting language (PHP) – is included in an extractable file. XAMPP is also cross-platform, which means it works equally well on Linux, Mac and Windows. Since most actual web server deployments use the same components as XAMPP, it makes transitioning from a local test server to a live server extremely easy as well.

Mysql yog

MySQL Workbench is a unified visual tool for database architects, developers, and DBAs. MySQL Workbench provides data modeling, SQL development, and comprehensive administration tools for server configuration, user administration, backup, and much more. MySQL Workbench is available on Windows, Linux and Mac OS X.

HTML

Hypertext Markup Language (HTML) is the standard markup language for creating web pages and web applications. With Cascading Style Sheets (CSS) and JavaScript, it forms a triad of cornerstone technologies for the World Wide Web.[4]

Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

HTML elements are the building blocks of HTML pages. With HTML constructs, images and other objects such as interactive forms may be embedded into the rendered page. HTML provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items.

Bootstrap

Bootstrap is a free and open-source front-end framework for designing websites and web applications. It contains HTML- and CSS-based design templates for typography, forms, buttons, navigation and other interface components, as well as optional JavaScript extensions. Unlike many web frameworks, it concerns itself with front-end development only.

Java Script

JavaScript often abbreviated as JS, is a high-level, interpreted programming language. It is a language which is also characterized as dynamic, weakly typed, prototype-based and multi-paradigm.

Alongside HTML and CSS, JavaScript is one of the three core technologies of the World Wide Web. JavaScript enables interactive web pages and thus is an essential part of web applications. The vast majority of websites use it, and all major web browsers have a dedicated JavaScript engine to execute it.

Sublime Text

Sublime Text is a proprietary cross-platform source code editor with a Python application programming interface (API). It natively supports many programming languages and markup languages, and functions can be added by users with plugins, typically community-built and maintained under free-software licenses.

Github

GitHub is a web-based hosting service for version control using Git. It is mostly used for computer code. It offers all of the distributed version control and source code management (SCM) functionality of Git as well as adding its own features. It provides access control and several collaboration features such as bug tracking, feature requests, task management, and wikis for every project.

GitHub offers plans for both private repositories and free accounts which are commonly used to host open-source software projects.

Css

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language like HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.

CSS is designed to enable the separation of presentation and content, including layout, colors, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple web pages to share formatting by specifying the relevant CSS in a separate css file, and reduce complexity and repetition in the structural content.

1.6 Specification Requirement

1.6.1 External Interfaces

- This interface will be actual interface through which the user will communication with the application and perform the desired tasks.

Admin login

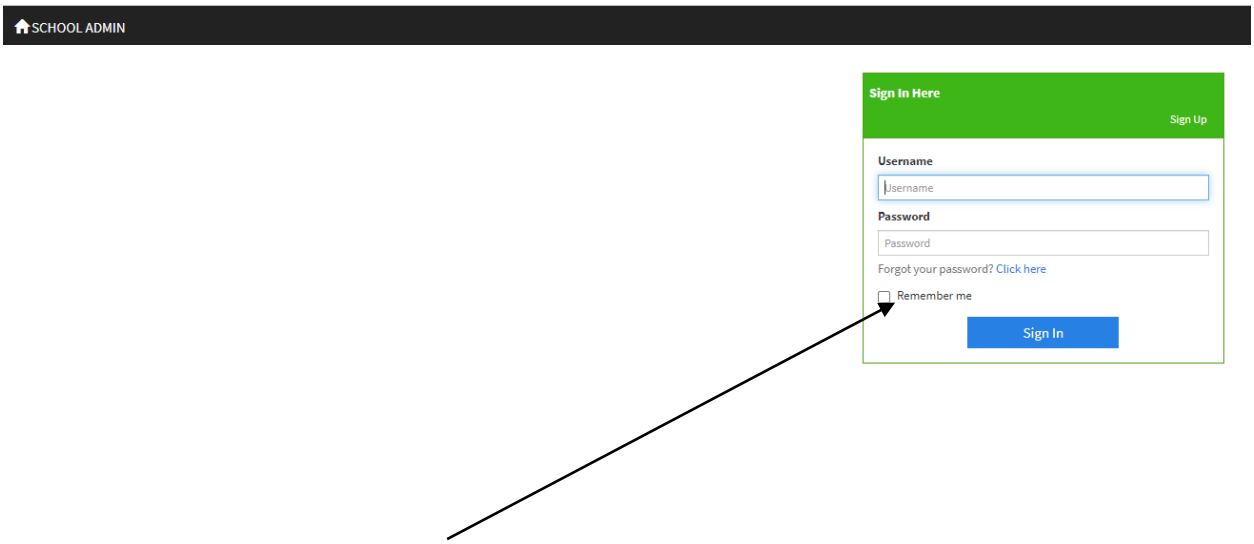
I.D:

Role: Admin wishes to login to the system

Precondition: Username and Password

Success end Condition: Main option of screen display

Failed end Condition: User has entered incorrect Username and Password or both



Edit

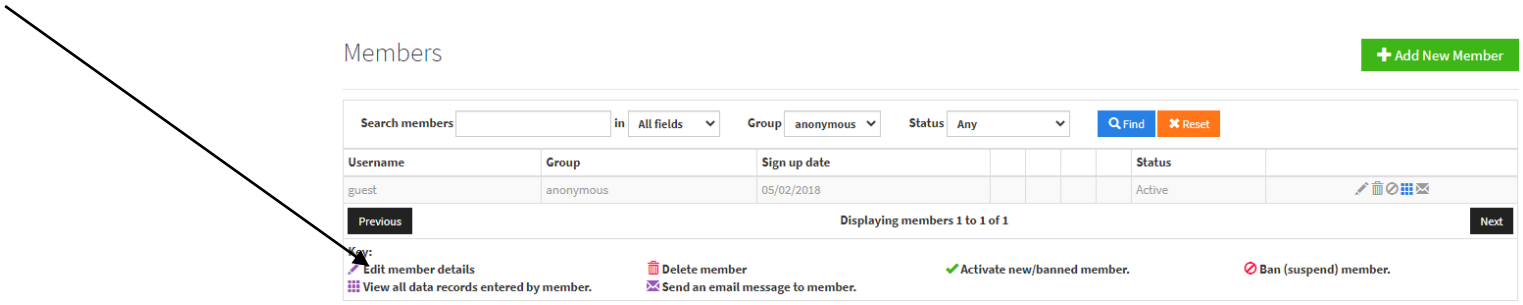
ID:

Precondition: User has successfully navigated to the search result

Success end Condition: User has successfully made the changes

1.To edit user records in the data base, first search the record you want to edit then click on 'edit' button.

2.Edit the particulars user that you want to change and click on' Save' button.



1.6.2 Software Product Features

School Management System

Login Information System

- Description

  -The system will maintain the login information of its user to enter in to the software

- Validating Checks

  -Administrator need to login the unique id and password.

  -Contact number should have maximum 10 digits.

  -All the details must be fill up.

  -Email address should be in the proper format.

- Sequencing information

  -Login information should be filled before the user allowed.

- Error Handling

  -If user doesn't filled up validate information then the system display error message for user and request to enter the validate information.

Performance required

- Security

-System should be Protected from unauthorized access Where the validate Username and Password are required so no other can access.

Logical Database

branch

Column	Type	Null	Default	Links to	Comments	MIME
id *(Primary)*	int(10)	No				
Name	varchar(40)	No				
AccountNumber	varchar(40)	No				

Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	id	3	A	No	

classattendance

Column	Type	Null	Default	Links to	Comments	MIME
id *(Primary)*	int(10)	No				
Subject	int(10)	No				
Student	int(10)	No				
RegNo	int(10)	Yes	*NULL*			
Class	int(10)	Yes	*NULL*			
Stream	int(10)	Yes	*NULL*			
Attended	varchar(40)	Yes	*NULL*			
Date	date	Yes	*NULL*			

Data Design

Data Model: A database model is a type of data model that determines the logical structure of a database and fundamentally determines in which manner data can be stored, organized and manipulated.

Level

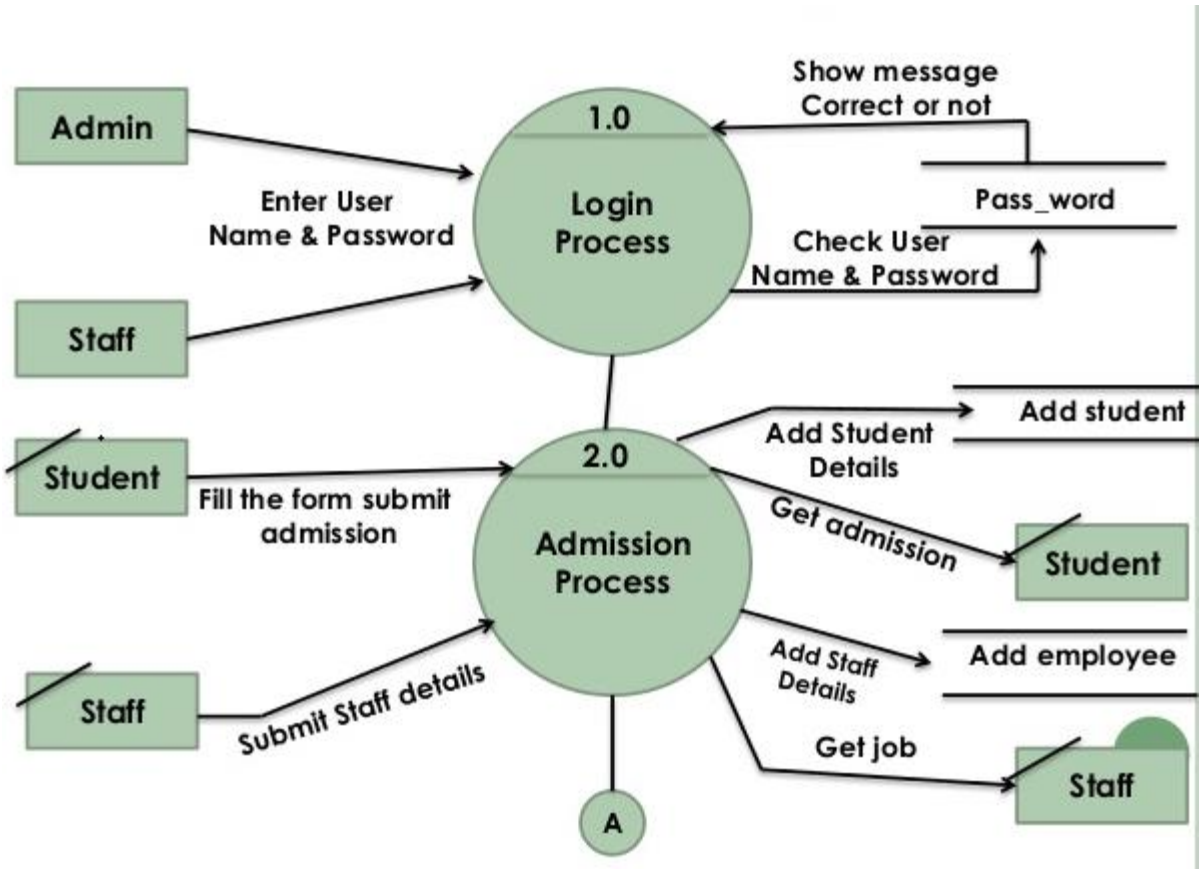


Figure: Data flow

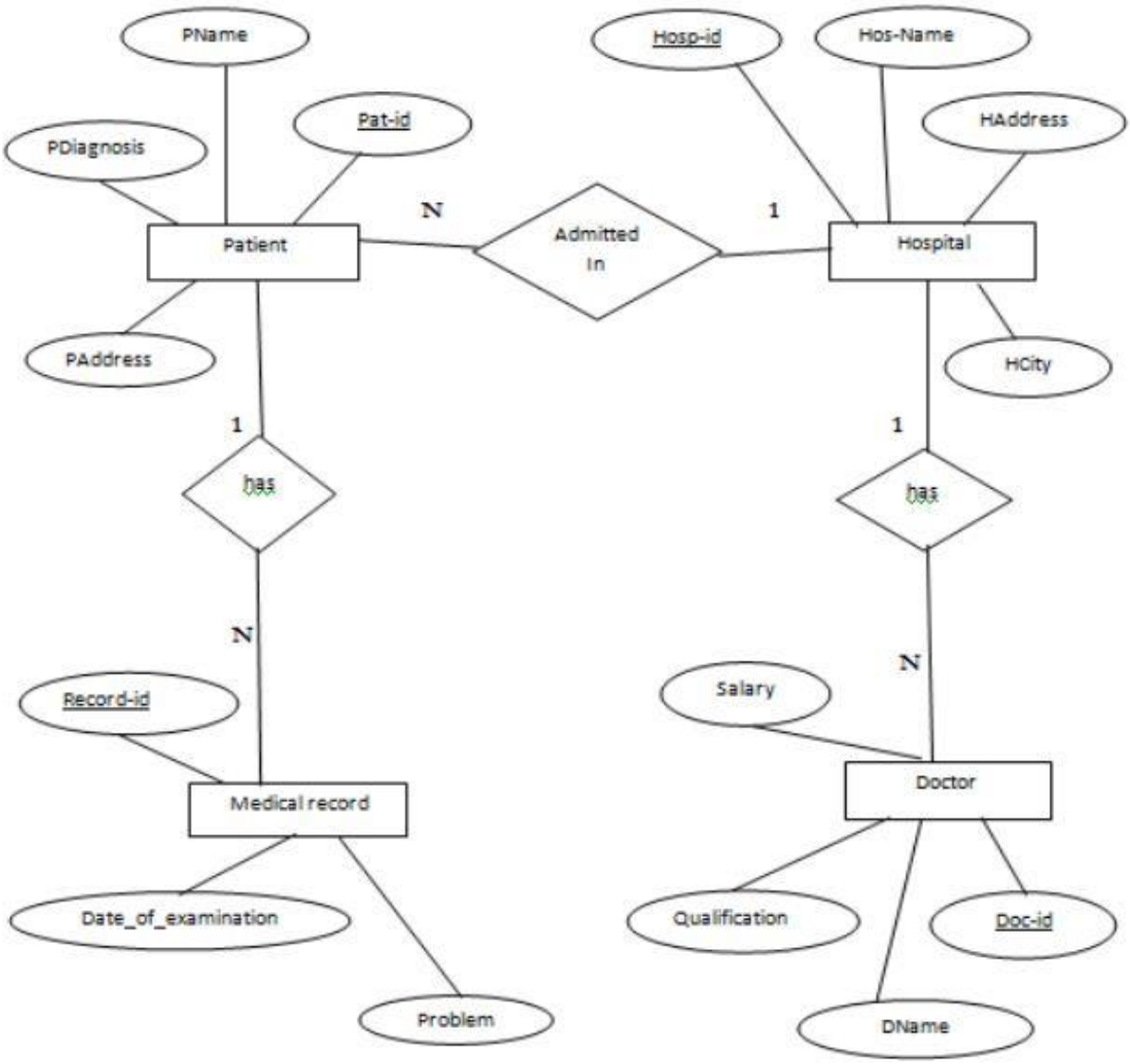


Figure: ER diagram

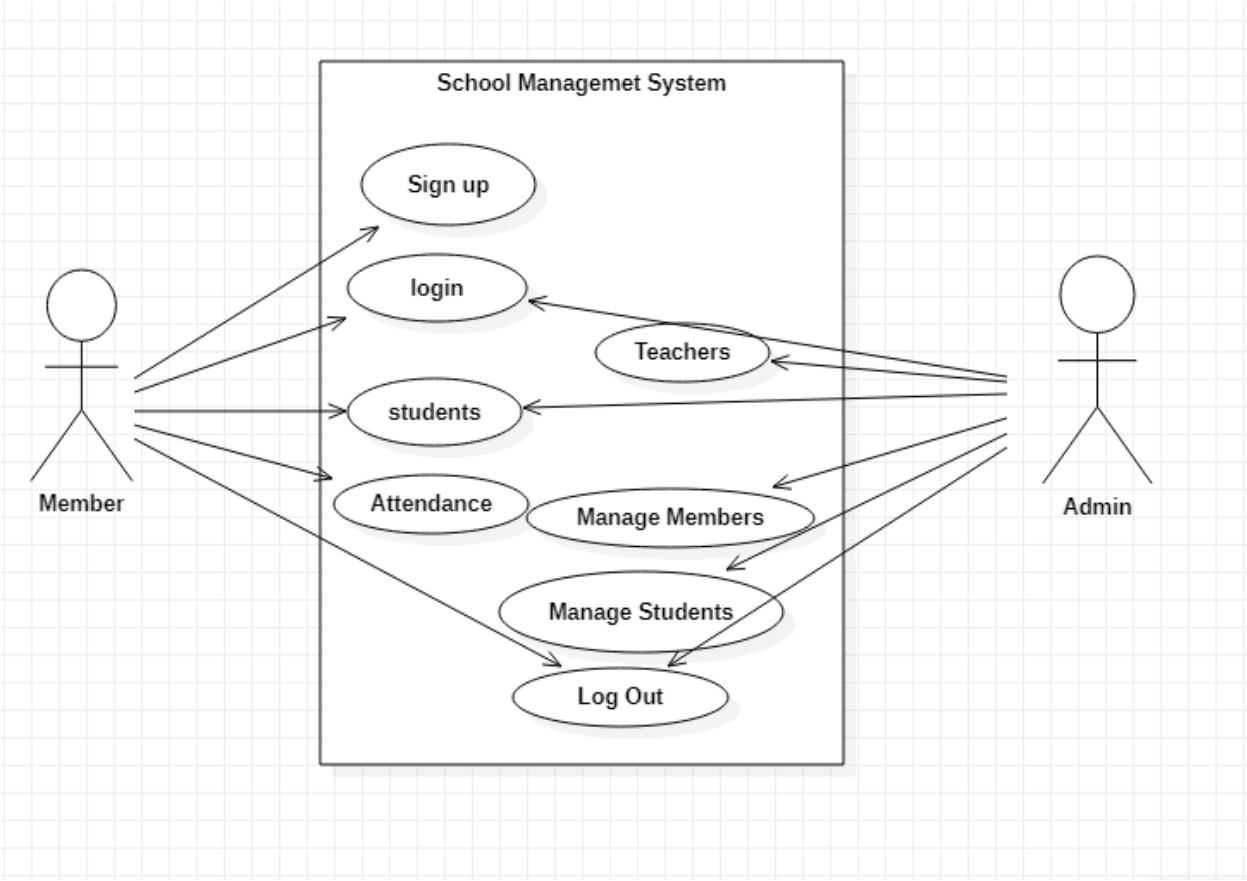


Figure: Use case Diagram

Database

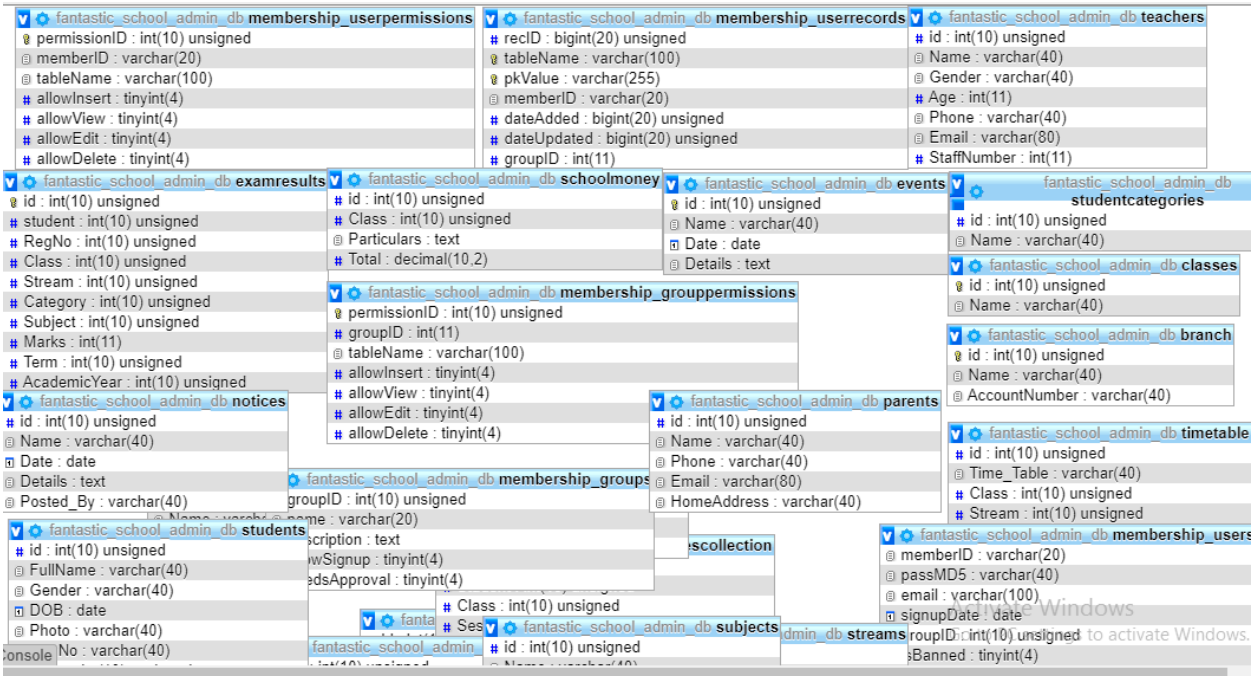


Figure: Schema Diagram

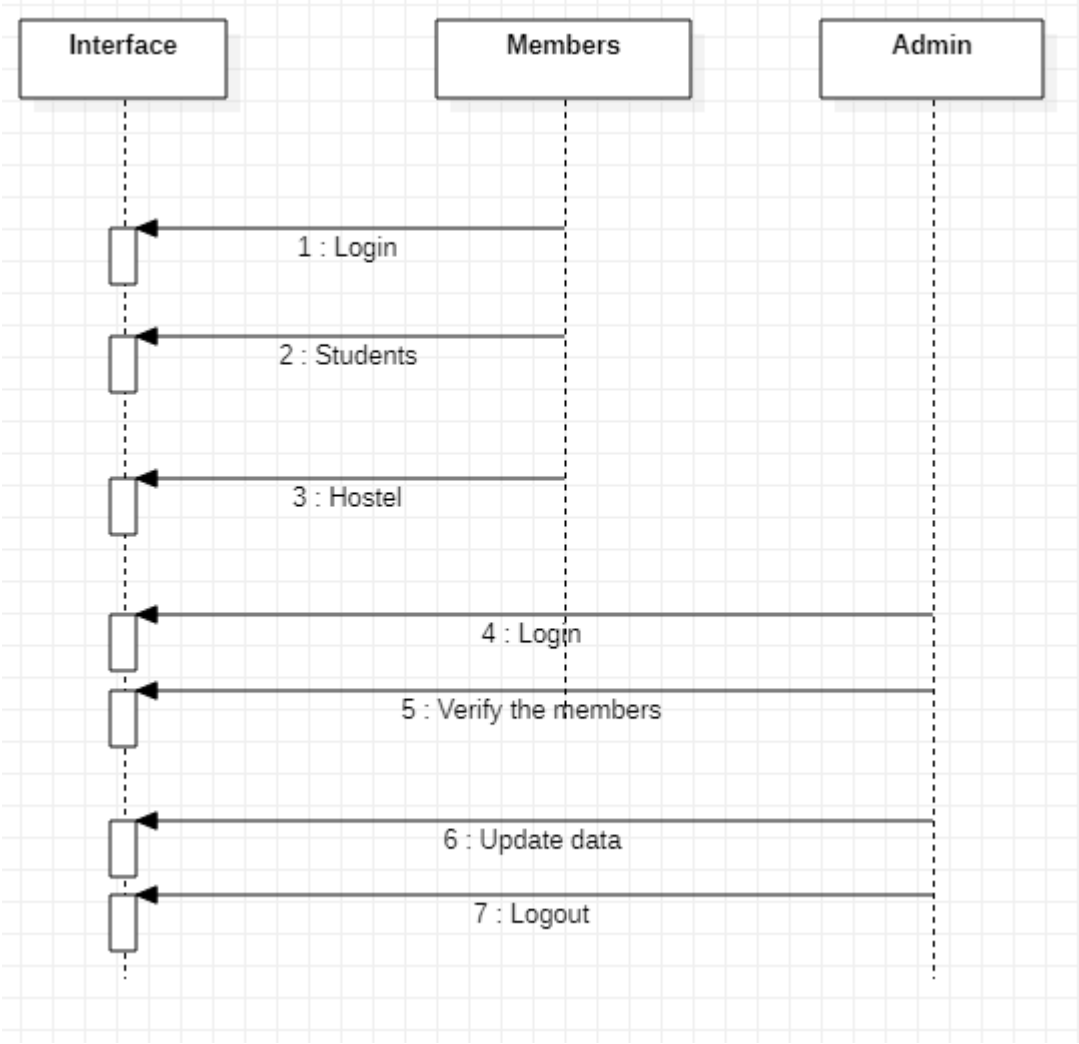


Figure: Sequence Diagram

Figure: Flowchart

Chapter II: Task and Activities Performed

2.1 Profile of Problems

In the present system all work is done on paper. It takes long process to get the appointments of the doctors. Patients need to go to the hospital and get the appointments of the doctors which will consume patient's time and money

2.2 Structure of the project

- Before Login
  - Login
  - Register
- After Administrator Login
  - Add Members
  - Manage Members
  - View Students
  - View Hostels
  - View Groups
  - Logout
- After Members Login
  - View Students
  - View Hostels
  - View Classes
  - View Attendance
  - Logout
  - Logout

2.3 Scope and Feasibility

This activity is also known as the feasibility study.

Perform and evaluate feasibility studies like cost-benefit analysis, technical feasibility, time feasibility and operational feasibility for the project. Project Scheduling should be made using chats. Feasibility study is carried out t decide whether the proposed system is feasible for the company. It begins with a request from the user for a new system. It involves the following:

- Identify the responsible user for a new system
- Clarify the user request
- Identify deficiencies in the current system
- Establish goals and objectives for the new system
- Determine the feasibility for the new system
- Prepare a project charter that will be used to guide the remainder of the Project

2.4 System Analysis

It is a process of collecting and interpreting facts, identifying the problems, and decomposition of a system into its components.

System analysis is conducted for the purpose of studying a system or its parts in order to identify its objectives. It is a problem solving technique that improves the system and ensures that all the components of the system work efficiently to accomplish their purpose.

The objective of the system analysis activity is to develop structured system specification for the proposed system. The structured system specification should describe what the proposed system would do; independent of the technology, which will be used to implement these requirements. The structured system specification will be used to implement these requirements.

The essential model may itself consist of multiple models, modeling different aspect of the system. The data flow diagrams may model the data and there relationships and the state transition diagram may model time dependent behavior of the system. The essential model thus consists of the following.

- Context diagram
- Leveled data flow diagrams
- Process specification for elementary bubbles
- Data dictionary for the flow and stores on the DFDs.

2.5 System Design

System design involves transformation of the user implementation model into software design. The design specification of the proposed system consists of the following:

- Database scheme
- Sequence Diagram
- Flow Chart

2.6 Implementation

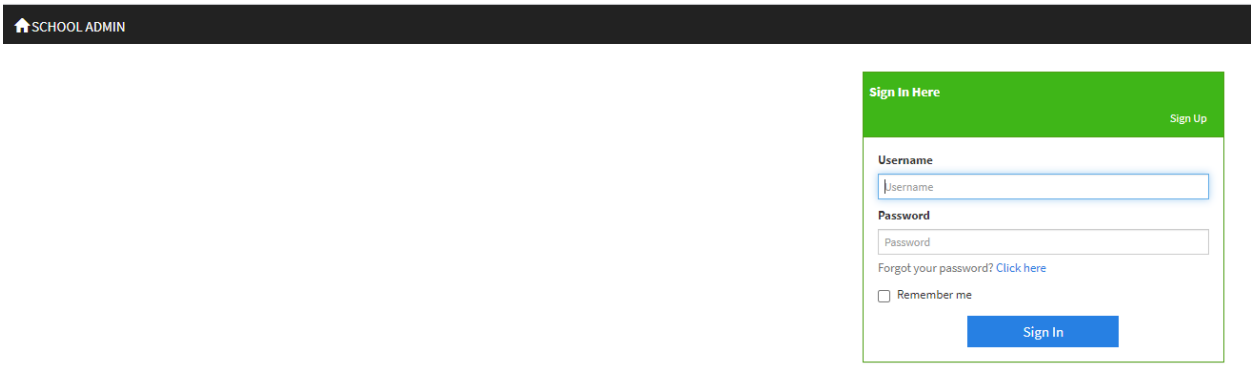
This activity includes programming, testing and integration of modules into a progressively more complete system. Implementation is the process of collect all the required parts and assembles them into a major product.

2.7 Test Generation

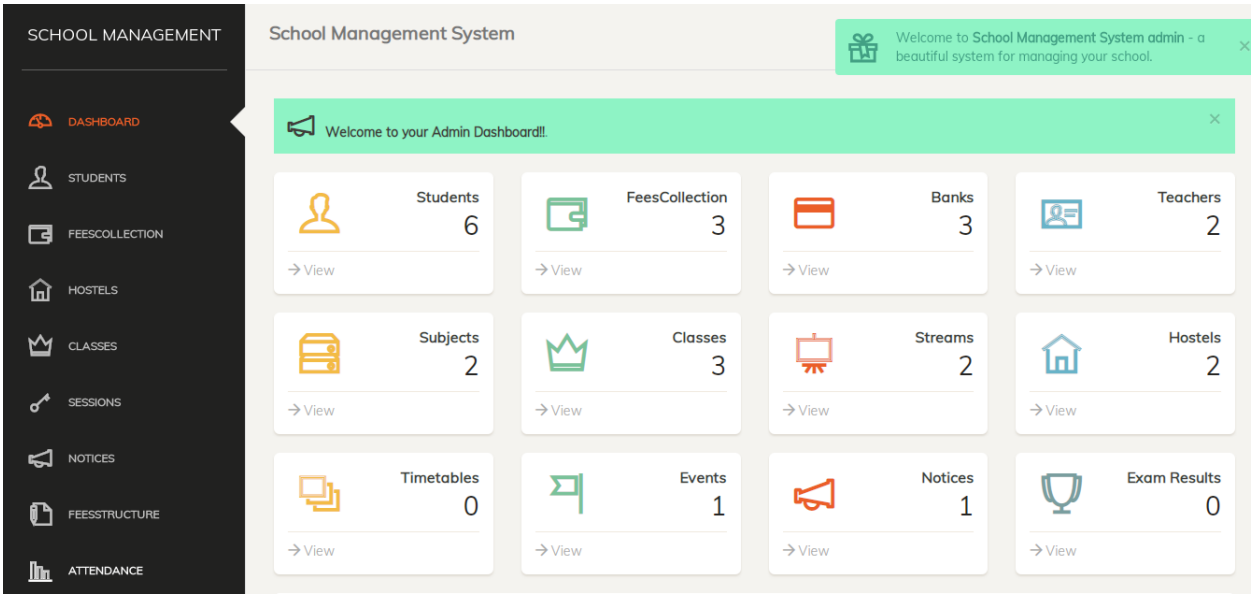
This activity generates a set of test data, which can be used to test the new system before accepting it. In the test generation phase all the parts are come which are to be tested to ensure that system does not produce any error. If there are some errors then we remove them and further it goes for accepting.

Screen Shot

Login Page


SCHOOL ADMIN
Sign In Here
Sign Up
Username
Username
Password
Password
Forgot your password? Click here
Remember me
Sign In

Home Page


SCHOOL MANAGEMENT
School Management System
Welcome to School Management System admin - a beautiful system for managing your school.
DASHBOARD
STUDENTS
FEESCOLLECTION
HOSTELS
CLASSES
SESSIONS
NOTICES
FEESSTRUCTURE
ATTENDANCE
Welcome to your Admin Dashboard!!.
Students 6 View
FeesCollection 3 View
Banks 3 View
Teachers 2 View
Subjects 2 View
Classes 3 View
Streams 2 View
Hostels 2 View
Timetables 0 View
Events 1 View
Notices 1 View
Exam Results 0 View