PROJECT REPORT ON "STUDENT MANAGEMENT SYSTEM"



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SUBMITTED TO SHREE SWAMINARAYAN MAHAVIDHYALAY

FOR DEGREE OF BACHELOR OF COMPUTER APPLICATIONS



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Thanking You Drashti Parvdiya

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1. INTRODUCTION

1.1 Background

- Student management system can handle all the detail about a student. The detail includescourses available in college.
- Syllabus and Papers based on courses.
- The student management system is an automated version of manual Student management system.
- Student management system is a management information system for education establishments to manage student data

1.2 Objective

- Student Management system is a management information system for education establishments to manage student data.
- It provide capabilities for adding courses, syllabus, papers, Faculties details ect..
- Ensure data integrity, privacy, and security in an open-access environment.

1.3 Purpose

Basic purposes of this system are...

- The Development of Academic related programs
- Monitor the progress of the students in academic matters
- Teacher management and resource
- Management of faculties data
- Management of course, syllabus and papers data with download link.

1.4 Scope

- Without a Student management System, managing and maintaining the details of the courses is a tedious job for any organization.
- Student Information system will store all the details of the faculties, courses, syllabus and papers including basic information.

1.5 Applicability

- To store course, syllabus, papers and faculties details.
- 24*7 availability of information.
- No wait for queue.
- Easy to download files.
- 24*7 opens for online searching.

2. Requirement & Analysis

2.1 Problem Definition

- In the manual system students are not able to get syllabus details as well as papers of old examinations.
- Parents are also not able to view detail of faculties.
- Syllabus and papers not manage course wise.

2.2 Requirement Specification

- College admin can able to manage courses as they want.
- They can able to upload syllabus data with file and also papers based on syllabus and subject.
- Also papers can be freely downloaded from any students.
- Admin wants to manage and display faculties' data.

2.3 Hardware & Software Requirements

Software and Hardware needed for the development and implementation of our project.

• Hardware Requirements

There are following Hardware is required for this system

- ✓ 512 MB RAM
- ✓ 80 GB Hard Disk
- ✓ Print
- ✓ Power Backup
- ✓ Telephone &Internet Connection

• Software Requirements

There are following Software is required for this system

- ✓ Macromedia Dreamweaver 8
- ✓ PHP (Hypertext Pre –Processor)
- ✓ JavaScript
- ✓ CSS (Cascading Style Sheets)
- ✓ MySQL
- ✓ WAMP Server
- ✓ Adobe Photoshop CS3
- ✓ Internet Explorer, Mozilla Firefox, Google Chrome, etc.

Tools/Platform, Hardware and Software Requirement Specifications

❖ <u>Tools/Platform</u>:

➤ Adobe Photoshop CS3

- For the layout designing of the entire project we have used Photoshop extensively. It's really a great application that allowed us to create different styles of images and backgrounds that nitrating with CSS made a really neat looking web application for us.
- We have also used it to make stylish page dividers for our project documentation.

➤ Macromedia Dreamweaver 8



- Macromedia Dreamweaver 8 is the industry-leading web development Tool, enabling users to efficiently design, develop and maintain Standards -based websites and applications.
- Macromedia Dreamweaver is one of the most popular web-design programs in the industry. It allows you to develop professional websites and its user-friendly interface; tools and features have made it the must-have package for web designers.
- Dreamweaver uses both Cascading Style Sheets (CSS) and Hyper Text Markup Language (HTML) and it has good code-editing support features that will help you to write the CSS and HTML. Alongside writing the code, you can use the visual layout tools to build your sites and make them look exceptional.

> PHP (Hypertext Pre-Processor)



- PHP is a scripting language originally designed for producing dynamic web pages. It has
 evolved to include a command line interface capability and can be used in standalone
 graphical applications.
- While PHP was originally created by Rasmus Lerdorf in 1995, the main implementation
 of PHP is now produced by The PHP Group and serves as the defector standard for PHP
 as there is no formal specification.
- PHP is free software released under the PHP License; however it is incompatible with the GNU General Public License (GPL), due to restrictions on the usage of the term PHP.
- PHP is a widely-used general-purpose scripting language that is especially suited for web development and can be embedded into HTML. PHP has grown from simple beginnings to a full-fledged Object Oriented language that can run both windows and UNIX/Linux platforms.
- The main advantage of using PHP over other platforms, such as Java or .Net, are that it issmaller, much simpler to install, and more lightweight, needing only a fraction of the memory of the Java Runtime of the .Net CLR. Since it is an open source language and we do not have to purchase it, it seemed best choice for the development of our project as we had to maintain a very low budget throughout out project.

Features of PHP

The following features of PHP are

- ✓ Simplicity
- ✓ Portability
- ✓ Speed
- ✓ Open Source
- ✓ Extensible
- ✓ XML and Database Support

> JavaScript

- JavaScript is a scripting language used to enable programmatic access to objects within other applications. It was developed by Brendan Eich.
- It is primarily used in the form of client-side JavaScript for the development of dynamic websites. JavaScript is a dialect of the ECMAScript standard and is characterized as a dynamic, weakly typed, prototype-based language with first-class functions.
- JavaScript was influenced by many languages and was designed to look like Java, but be easier for non-programmers to work with.
- JavaScript, despite the name, is essentially unrelated to the Java programming language even though the two do have superficial similarities.
- Both languages use syntaxes influenced by that of C syntax, and JavaScript copies many Java names and naming conventions.
- The language's name is the result of a co-marketing deal between Netscape and Sun, in exchange for Netscape bundling Sun's Java runtime with their then-dominant browser. The key design principles within JavaScript are inherited from the self and Scheme programming languages.
- "JavaScript" is a trademark of Sun Microsystems. It was used under license for technology invented and implemented by Netscape Communications and current entities such as the Mozilla Foundation.

CSS (Cascading Style Sheets)

- Cascading Style Sheets (CSS) is a style sheet language used to describe the presentation (that is, the look and formatting) of a document written in a markup language. It's most common application is to style web pages written in HTML and XHTML, but the language can be applied to any kind of XML document, including SVG and XUL.
- CSS is designed primarily to enable the separation of document content (written in HTML or a similar markup language) from document presentation, including elements such as the colors, fonts, and layout.
- This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple pages to share formatting, and reduce complexity and repetition in the structural content (such as by allowing for table less web design).

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• CSS can also allow the same markup page to be presented in different styles for different rendering methods, such as on-screen, in print, by voice (when read out by a speech-based browser or screen reader) and on Braille-based, tactile devices.

> MySQL



- MySQL is a high-performance, multiuser relational database management system for database driven software applications.
- Designed around three fundamental principles-speed, stability and ease of use, and freely available under the GNU (General Public License). MySQL has been dubbed "the world's most popular open-source database "by its parent company, MySQL AB.
- Today, MySQL is available for a wide variety of platforms, including Linux, MacOS and Windows.

Features of MySQL

The following features of MySQL are

- ✓ Speed
- ✓ Reliability
- ✓ Security
- ✓ Scalability and Portability
- ✓ Ease of Use
- ✓ Compliance with Existing Standards
- ✓ Wide Application Support
- ✓ Easy Licensing Policy

> WAMP Server



- **WampServer** is a Web development platform on Windows that allows you to create dynamic Web applications with Apache2, PHP, MySQL and MariaDB.
- **WampServer** automatically installs everything you need to intuitively develope Web applications. You will be able to tune your **server**without even touching its setting files.
- WampServer is a Web development platform on Windows that allows you to create dynamic Web applications with Apache2, PHP, MySQL and MariaDB.
- WampServer automatically installs everything you need to intuitively develope Web applications. You will be able to tune your server without even touching its setting files.
- Best of all, WampServer is available for free (under GPML license) in both 32 and 64 bit versions. Wampserver is not compatible with Windows XP, SP3, or Windows Server 2003.

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2.4 Planning & Scheduling

2.4.1 Planning

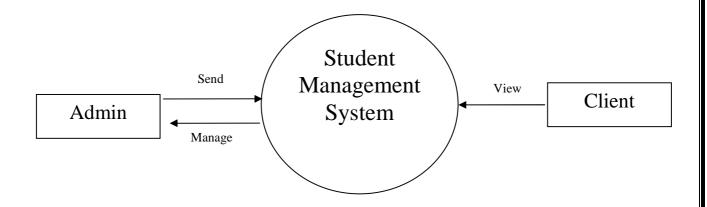
Activities	Time Duration
Requirement Gathering	3 weeks
Design	3 weeks
Development & Coding	4 weeks
Quality Assurance	2 weeks
Testing & Implementation	2 weeks

2.4.2 Scheduling

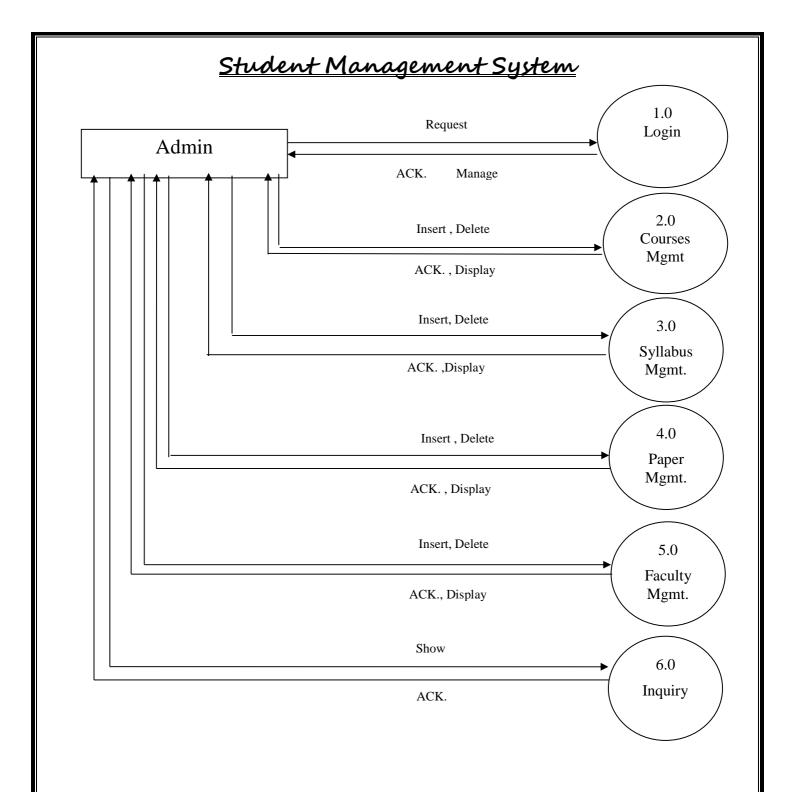
Gantt chart

	Decen	ıber	January	February	March
Requirement Gathering					
Design					
Development & Coding					
Quality Assurance					
Testing & Implementation					

- 3. System Design
- 3.1.1 Data Flow Diagram

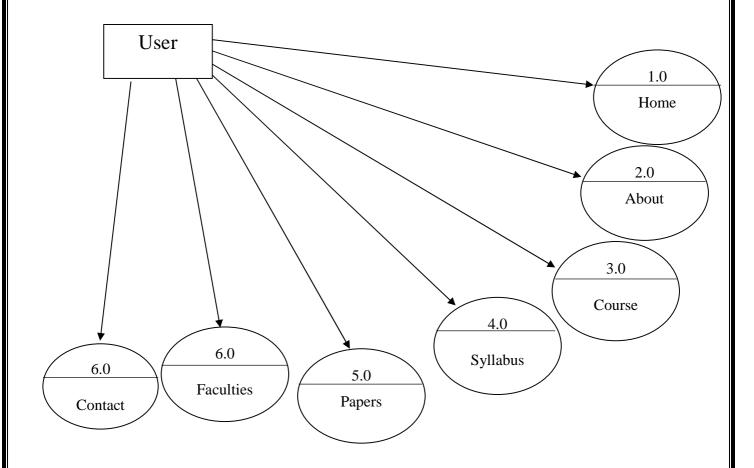


Context or 0 - Level DFD

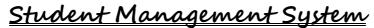


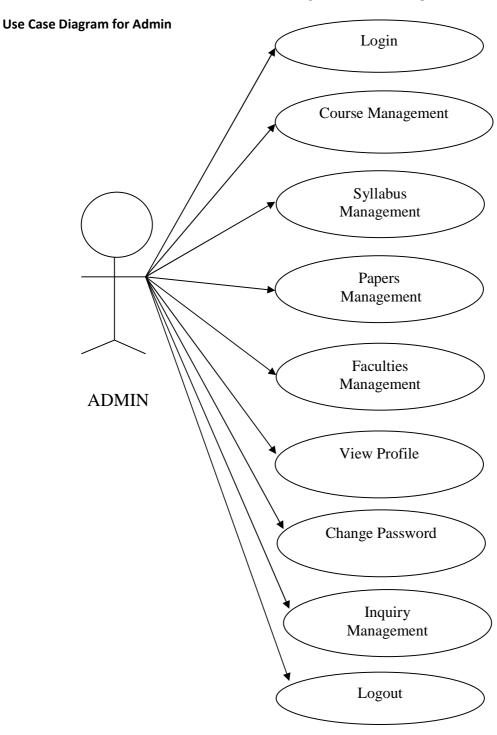
1stLevel DFD (Admin)

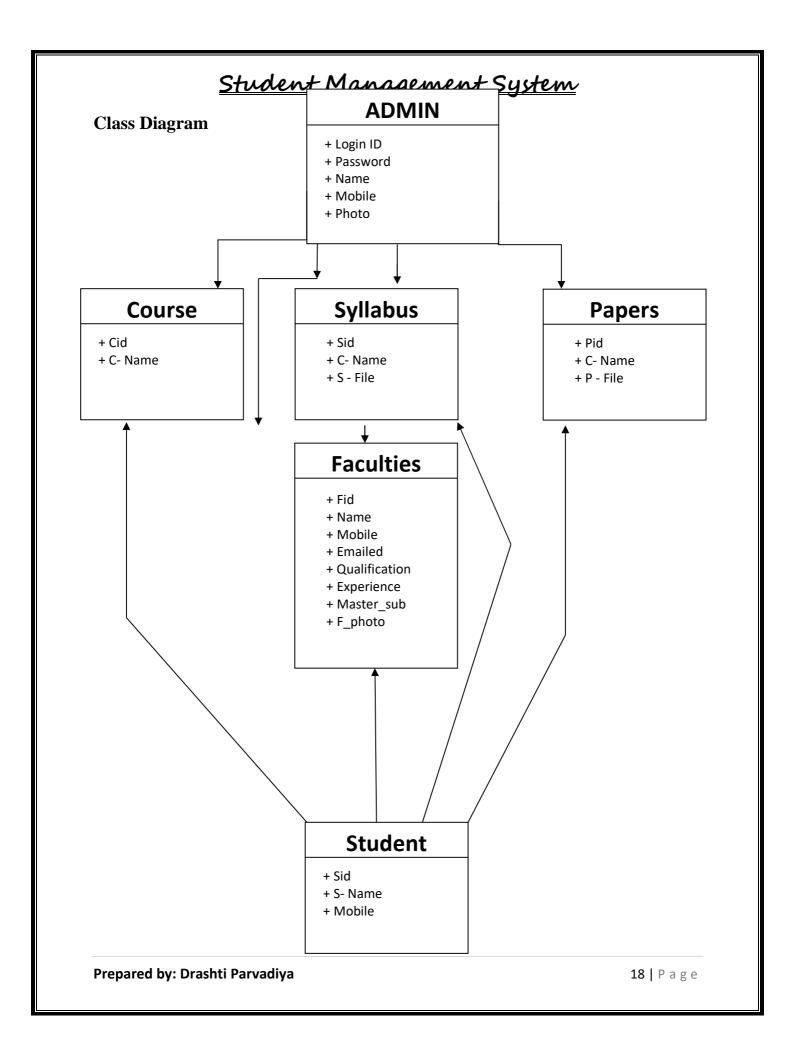




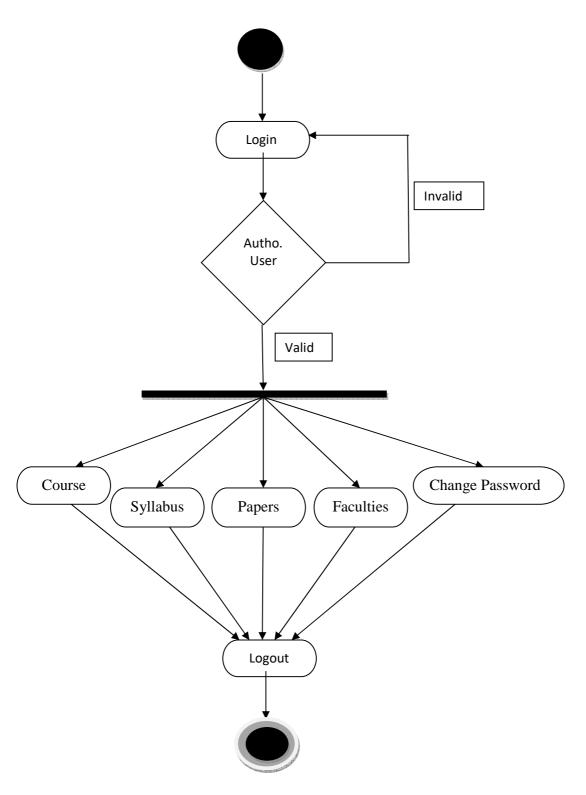
1stLevel DFD (Student)







Activity Diagram for Admin



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3.1 Data Dictionary

Database Name: db_student_mgmt

Table: admin

Purpose: it is used to store admin data.

Field	Type	Comments
Aid	int(11)	Primary Key
Name	varchar(20)	
Mobile	varchar(14)	
Emailed	varchar(35)	
a_photo	varchar(100)	
Loginid	varchar(10)	
Password	varchar(10)	

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Table: course

Purpose: It is use to store course data with id and course name

Field	Туре	Comments
cid	int(11)	Primary Key
c_name	varchar(20)	_

Table: faculties

Purpose: It is use to store data of faculties.

Field	Туре	Comments
Fid	int(11)	Primary Key
Name	varchar(30)	
Mobile	varchar(14)	
Emailed	varchar(35)	
qualification	varchar(20)	
experience	varchar(30)	
master_sub	varchar(50)	
f_photo	varchar(100)	

Table : inquiry

Purpose: It is use to store inquiry data.

Field	Type	Comments
Iid	int(11)	Primary Key
Name	varchar(20)	
Mobile	varchar(14)	
Emailed	varchar(35)	
Comments	varchar(255)	

Table : papers

Purpose: It can store papers data with file which can be downloading by students.

Field	Туре	Comments
Pid	int(11)	Primary Key
c_name	varchar(20)	
Sem	varchar(10)	
sub_name	varchar(20)	
p_file	varchar(20)	

Table: syllabus

Purpose: It is use to store syllabus data with file which be downloading by student.

Field	Туре	Comments
Sid	int(11)	Primary Key
c_name	varchar(20)	
Sem	varchar(5)	
sub_name	varchar(20)	
s_file	varchar(100)	

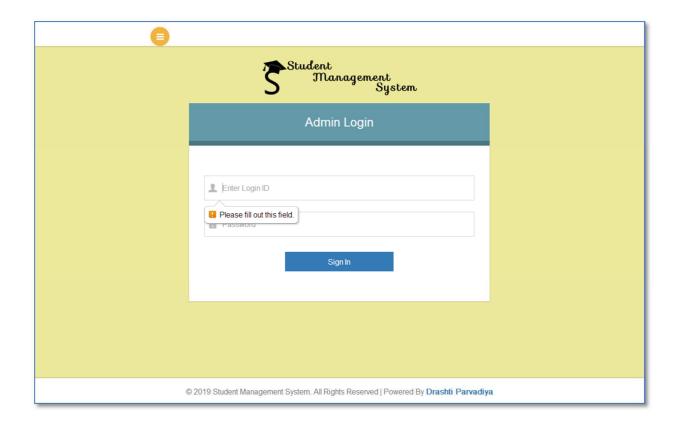
3.3Input & Output Design

ADMIN SIDE

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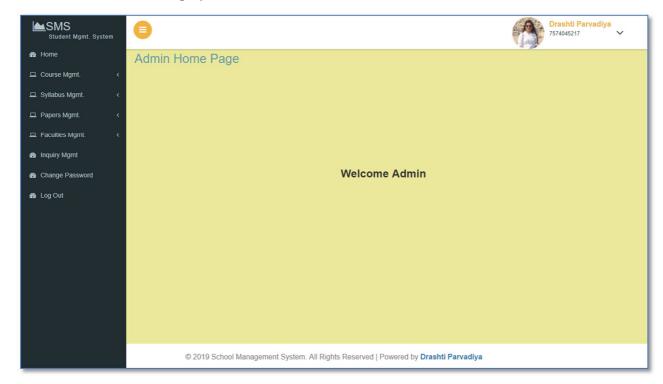
ADMIN LOGIN

- Admin can able to login using login id and password.
- Login id and password are already given to the admin user.
- Login id and password textbox cannot allow to pass as blank value.



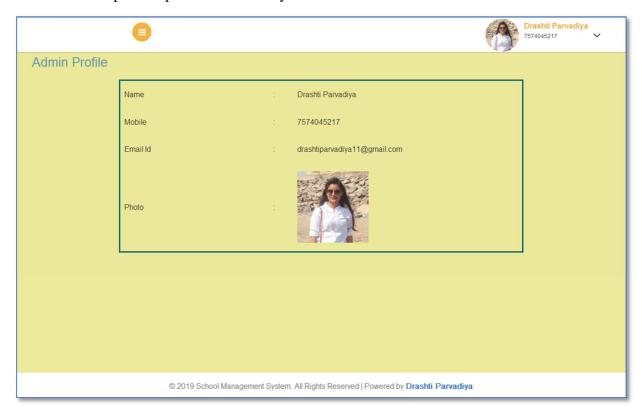
ADMIN HOME

- Admin home page.
- Home page with admin setting on top side.
- Also left side it display menu.



ADMIN PROFLE

- It is display profile or data of admin.
- Also we provide photo zoom facility.



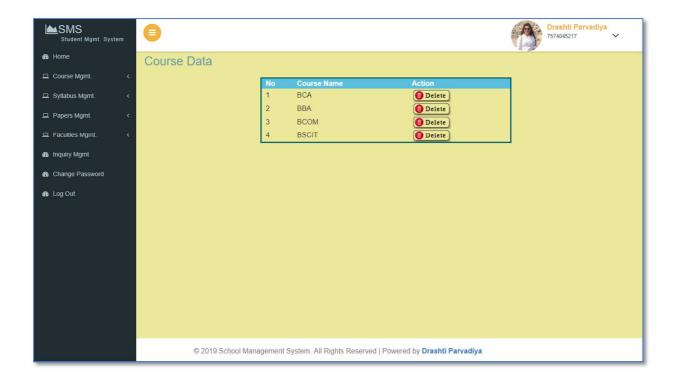
ADD NEW COURSE

- Admin can able to add course name.
- Course name cannot be sending blank.



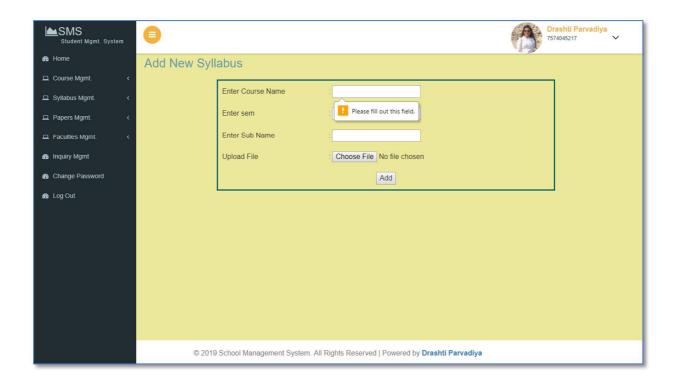
VIEW COURSES

- It displays course data which are entered by admin.
- It also provide delete link, if admin wants to delete then this link would be useful.
- It is also display confirmation message while deleting record.



ADD NEW SYLLABUS

- Admin can able to add new syllabus data.
- Admin need to upload syllabus file.



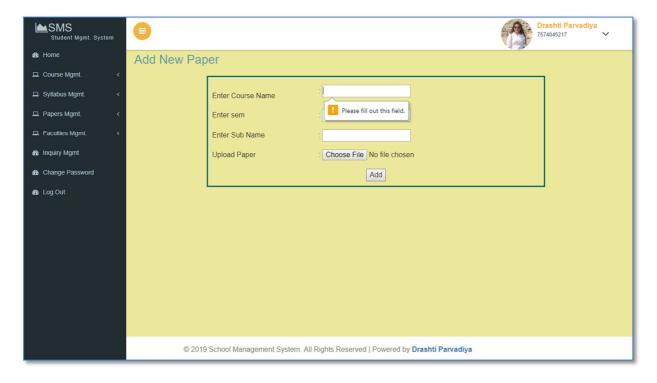
VIEW SYLLABUS

- Admin can able to view data of syllabus which are uploaded.
- It is also provide delete link.
- It is also display confirmation message while deleting record.



ADD PAPER

- Admin can able to new paper.
- It also provides validation.
- Admin need to upload paper file.



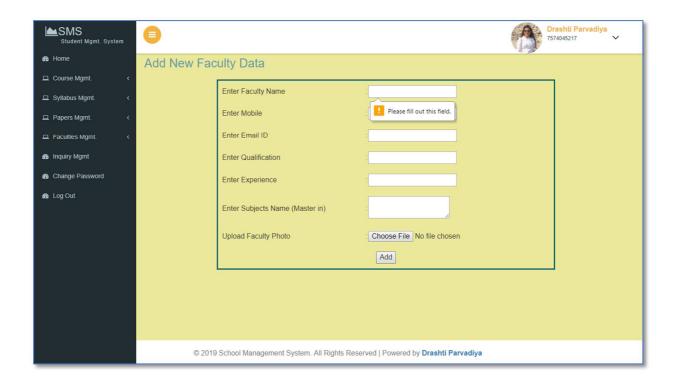
VIEW PAPERS

- Admin can able to view papers which are uploaded.
- It is also display download link.
- Admin can delete unwanted papers.
- It is also display confirmation message while deleting record.



ADD FACULTY DATA

- Admin can manage faculties' data.
- Admin can able to add faculty details with photograph and basic details of a faculty.



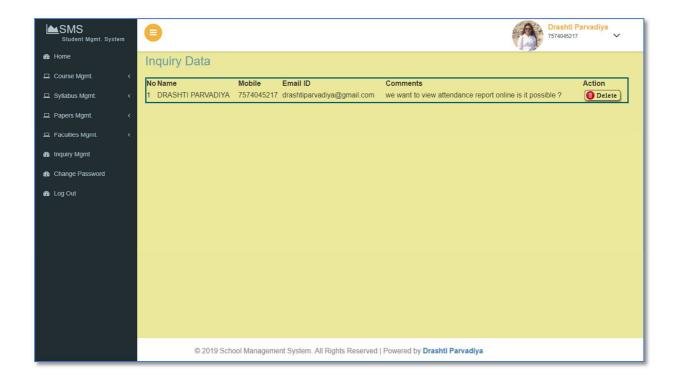
SHOW FACULTIES

- Admin can able to view faculties' details.
- Admin also can delete faculty data.



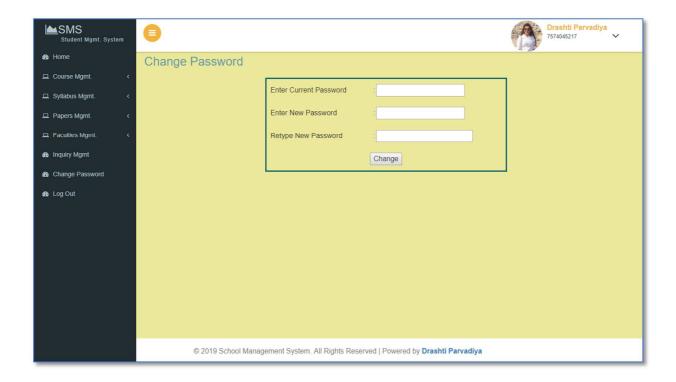
VIEW INQUIRIES

- Admin can view inquiries which are submitted by students or other person.
- Admin also able to delete inquiry.
- It is also display confirmation message while deleting record.



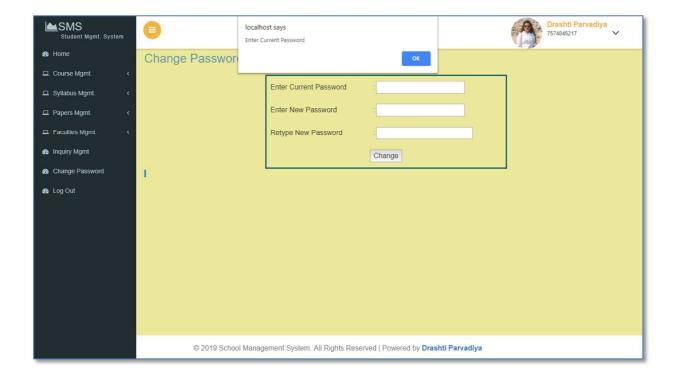
CHANGE PASSWORD

• After login admin can able to change their current password.



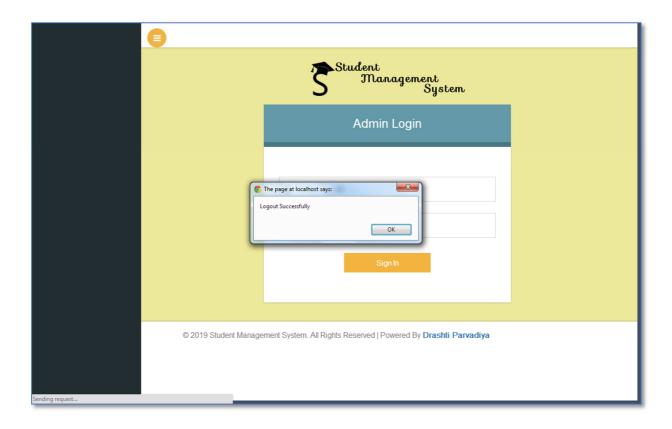
CHANGE PASSWORD WITH VALIDATIONS

• It is provides JavaScript validations while change password.



LOGOUT

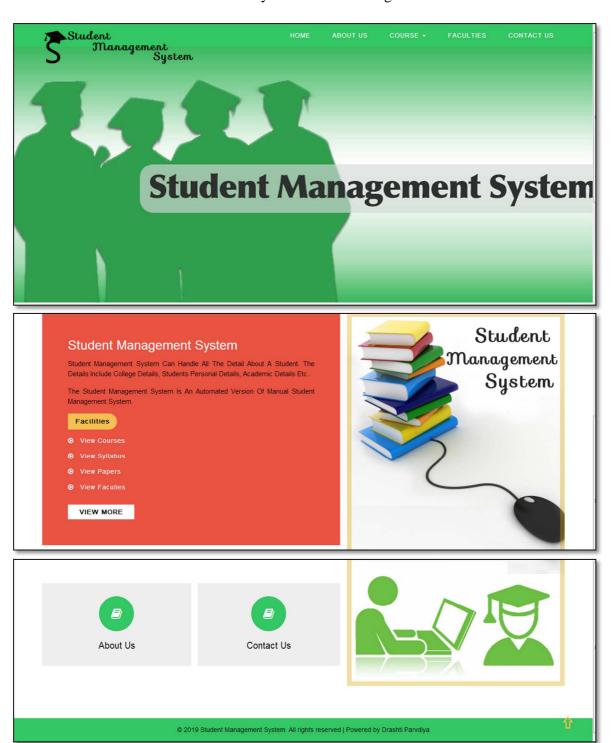
• After logout it display message.



Student Management System CLIENT SIDE	
Prepared by: Drashti Parvadiya	42 Page

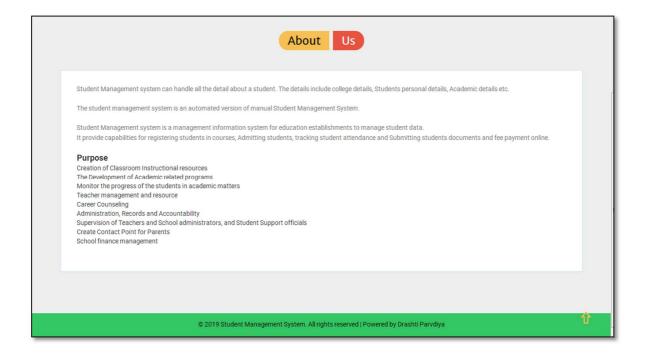
HOME PAGE

- Home page for users.
- It contains basic information of system with few images.



ABOUT US

• It displays information of system.



COURSE & SYLLABUS WITH DOWNLOAD LINK

• Users can able to view syllabus as well as they can download it.





PAPERS WITH DOWNLOAD LINK

• Users can able to view syllabus as well as they can download it.





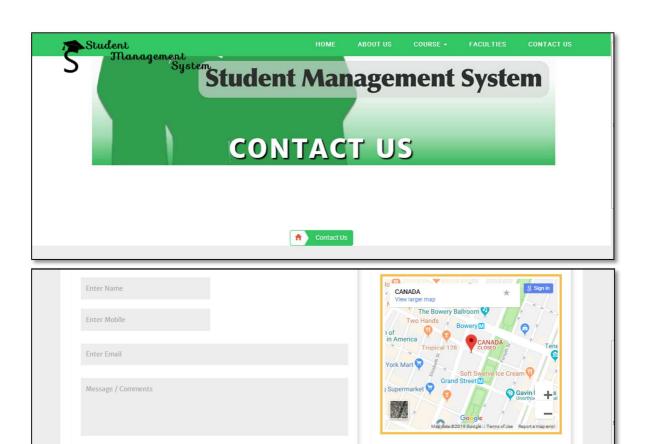
SHOW LIST OF FACULTIES

- It display list of faculties which are uploaded by admin
- Users are able to download paper while clicking on link



CONTACT PAGE

- Contact page with inquiry and map.
- If also provide JavaScript Validation while sending inquiry.



Testing & Implementation

4.1Testing Approaches Used

3.4.1 Testing Methods

3.4.1.1 Black box testing

• Black box testing is based on the software's specifications or requirements, without reference to its internal workings. Gray box testing combines white box techniques with black box input testing this method of testing explores paths that are directly accessible from user inputs or external interfaces to the software.

3.4.1.2White box testing

 White box testing is performed based on the knowledge of how the system is implemented. White box testing includes analyzing data flow, control flow, information flow, coding practices, and exception and error handling within the system, to test the intended and unintended software behavior. White box testing can be performed to validate whether code implementation follows intended design

3.4.1.3Unit testing

• Unit Testing tests a unit of code (module or program) after coding of that unit is completed. Programmers perform unit tests to assess the functionality of small modules of code.

3.4.1.4 Integrated Testing

• Integration Testing tests whether the various programs that make up a system, interface with each other as desired, fit together and whether the interfaces between the programs are correct.

3.4.1.5 System Testing

• System Testing ensures that the system meets its stated design specifications. After we completed our project we checked the whole project for consistency and output specification.

3.4.1.6 Acceptance Testing

• Acceptance Testing is testing by the users to ascertain whether the system developed is a correct implementation of the Software Requirements Specification.

4.2Test Cases

4.2.1 Test case Design.

SR.No.	Test Case ID	Do	Expected Result
1	404 page not found	Page name change	Solved
2	Login problem in admin	Using session_start() it is worked	Solved
3	File download in student side	Given proper link	Solved
4	In add paper validations not worked	Using JavaScript it is worked	Solved
5	Admin cannot able to change password	Using PHP code it is worked	Solved

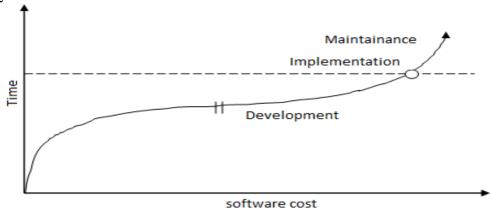
4.3Implementation Approaches

After creating the project and successfully testing it, the most important step of SDLC is to implement our system in the server. The step is vital for the whole project because after three months of hard work put into it and testing it from all possibilities it is yet to be determined whether the project runs successfully on site or not.

Especially when multiple users are going to use it the task becomes very significant and a system crash can put a really big black mark on our work. The successful implementation of the system is very necessary and following steps are implemented for it:

- 1) Prepare the infrastructure.
- 2) Coordinate with the organization involved in implementation.
- 3) Implement training.
- 4) Install the production solution.
- 5) Convert the data.
- 6) Perform final verification in production.
- 7) Implement new processes and procedures.
- 8) Monitor the solution.

Implementation is a tail end of this life cycle but it is continuous process till the end of system life.



5. Conclusion

5.1 Limitation of System

- Students are not able to login into the website so they are not able to view their individual result.
- Students are not able to get result via SMS.
- They are not able to view attendance report.
- Anyone can able to download syllabus and papers without any security.

5.2 Future Scope of System

- Student login can be possible with PHP code using student enrollment number and password.
- SMS of result and attendance can be sending using SMS API.
- Downloading of syllabus and papers can be secured using session.

5.3 Bibliography

Web Source

www.w3layouts.com www.w3schools.com

Books Source

- ✓ PHP Manual
 - > Authors StigSaetherBakken
 - > Publisher Alexander Aulbach
- ✓ HTML, XHTML, & CSS, Sixth Edition: Visual Quick Start Guide
 - > Author Elizabeth Castro
 - > Publisher Peachpit Press