A PROJECT REPORT ON

PROJECT TITLE

STUDENT MANAGEMENT SYSTEM

SUBMITTED BY

AMOGH DHAGE HITESH CHAU

ACADEMIC YEAR 2022-23 T.Y B.C.A. SEM - 5

UNDER THE GUIDANCE OF

MR. MEET THAKAR MR. YASH KOTECHA

SMT. C.Z.M GOSRANI B.C.A. COLLEGE JAMNAGAR

SUBMITTED TO



SAURASHTRA UNIVERSITY - RAJKOT

PROJECT REPORT ON

STUDENT MANAGEMENT SYSTEM

SUBMITTED BY

AMOGH DHAGE HITESH CHAU

ACADEMIC YEAR 2022-23 T.Y B.C.A. SEM - 5

UNDER THE GUIDANCE OF

MR. MEET THAKAR MR. YASH KOTECHA

SMT. C.Z.M GOSRANI B.C.A. COLLEGE JAMNAGAR

SUBMITTED TO



SAURASHTRA UNIVERSITY - RAJKOT



OSHWAL EDUCATION TRUST MANAGED

Smt.Chandramaniben Zaverchand Meghji Gosrani B.C.A. College

Shah Bhagwanji Kachra Education Complex, Near Octroi Post, Indira Gandhi Marg, Jamnagar-361004, India
Web:czmgbca.oshwaleducationtrust.org Email: info.czmgbca@oshwaleducationtrust.org
Tel:+91-288-2563885, 2563886 Telefax: +91-288-2567124

AFFILIATED TO SAURASHTRA UNIVERSITY, RAJKOT & MEMBER OF COMPUTER SOCIETY OF INDIA

CZMG BCA/31/2023-24/08

Date: 22/09/2023

CERTIFICATE OF PROJECT COMPLETION

This is to certify that

Dhage Amogh S L Chau Hitesh B

of BCA Semester 5 of Smt. C.Z.M.G. BCA College affiliated to Saurashtra University Rajkot, have completed the project on "Student Management System" based on institute requirements during Semester 5.

Mr. Meet Thakar

CODE GUIDE

Mr. Yash Kotecha

DOCUMENT GUIDE

EXAMINER NAME & SIGN

EXAM DATE: 05/10/2023

ABSTRACT

SMS known as <u>Student Management System</u> is a panel which provides managing services both for admins and students. The <u>admin panel</u> provides more privileges than the student panel such as <u>adding and managing the number of students and class, issuing a notice and previewing it for any changes</u>. However, <u>the admin can only view and give approval for leave</u> applied by students who provide genuine reason for their absence. <u>Admin can also view their profile and update it</u> if necessary.

On the other hand, the <u>student panel</u> provides services such as <u>applying for leave</u>, <u>updating or viewing the leave application</u>. Compared to admin level, the <u>student can only view the notice and their profile</u>. But the <u>student can update their profile</u> whenever possible. This website is made in PHP(for communicating with servers) and Mysql (for storing and managing records). To deliver a better user experience, we used a style framework that shaped our website clean and professional.

ACKNOWLEDGEMENT

We would like to thank Mr. Meet Thakar, Mr. Hitarth Raval our Professor-incharge and our Principal, Dr.Hetal Savla for their support and guidance in completing our project on the topic Student Management System. It was a great learning experience.

I would like to take this opportunity to express my gratitude to all of my project partner Amogh Dhage. The project would not have been successful without their cooperation and inputs.

Lastly, we would also like to thank the faculties and staff members of Smt.C.Z.M. Gosrani B.C.A. College, Jamnagar

AMOGH DHAGE

PROJECT PROFILE

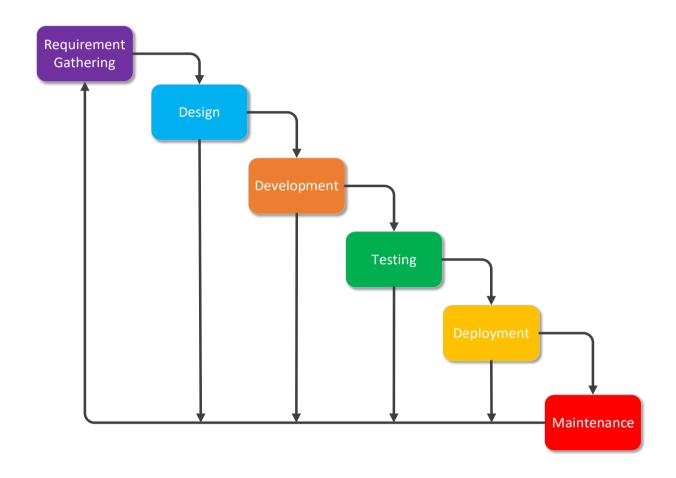
STUDENT INFORMATION							
Name	Enrollment Numbers						
AMOGH DHAGE	003203212605						
HITESH CHAU	003203212493						
PROJECT	DETAILS						
Project Title	STUDENT MANAGEMENT SYSTEM						
Duration	4 Months						
Name of Project	SMS						
Platform	PHP(Front end) MYSQL V3.3.0(back-end)						
Team Size	2						
GUIDE INF	ORMATION						
Names of Guides	MR. MEET THAKAR MR. YASH KOTECHA						

INDEX

Chapter	Title	Page No.
1	Overview of the accepted SDLC Model	1
2	Requirement Gathering and Analysis	2
	2.1 Organization Details	2
	2.2 Meetings	2-3
	2.3 Type of Project	4
	2.4 Method of collecting requirements	4
3	System Requirement Specification	5-9
	3.1 Introduction	5-7
	3.1.1 Purpose	5
	3.1.2 Scope	5
	3.1.3 Operating Environment	5
	3.1.4 User classes	5
	3.2 System Modules	5
	3.3 External Interface Requirements	7-8
	3.3.1 Hardware Interface Requirements	7
	3.3.2 Software Interface Requirements	7
	3.3.3 User Interface Requirements	7
	3.4 Non-functional Requirements	8
	3.4.1 Performance Requirements	8
	3.4.2 Security Requirements	8
	3.5 Feasibility Study	8

4	System Analysis and Modelling	10-21
	4.1 Normalization	10-12
	4.2 Data Dictionary	13-14
	4.3 Data Flow Diagram	15-17
	4.4 E-R Diagram	18
	4.5 Use-case Diagram	19-20
	4.6 Gantt Chart	21
5	Test Cases	22-24
6	Screenshots	25-35
7	Limitations and Future Enhancements	36
8	Conclusion	37
9	References and Bibliography	38

OVERVIEW OF THE ACCEPTED SDLC MODEL



Waterfall Model-

The Waterfall Model is the first Process Model to be introduced. It is also referred to as a linear-sequential life cycle model. It is very simple to understand and use. In a waterfall model, each phase must be completed before the next phase can begin and there is no overlapping in the phases. The waterfall model is a breakdown of project activities into linear sequential phases, meaning they are passed down onto each other, where each phase depends on the deliverables of the previous one and corresponds to a specialization of tasks.

REQUIREMENT GATHERING AND ANALYSIS

2.1 Organization details

> Name of organization:

SMT. C.Z.M.Gosrani BCA COLLEGE

> Brief details of the organization:

Oshwal Education Trust Managed Smt. C.Z.M.Gosrani B.C.A. College is the best college for students who want to make carrier in B.C.A.

2.2 Meetings

- > Meeting with a Principal:
 - Name of the Principal:
 - Mrs. Hetal G. Savla.

• Requirements of the Principal in their own words:

- Student's Login, Add Leave, View Leave, View Notice, View Profile & Edit Profile, View Event list, Register Event.
- Admin login and register, Add and manage the following components:-
 - Students
 - Classes
 - Notice
- Additionally, Admin must view the leave applied by students and decide whether to approve or reject.

003203212605	
003203212493	

Student Management System

2.3 Type of project

Online

2.4 Method of collecting requirements

> Interview

SYSTEM REQUIREMENT SPECIFICATION

3.1 Introduction

3.1.1 Purpose

- SMS is an online website which allows the admin to add, manage and view the enrolled students.
- Students can apply leave, register in event and edit their profile.

3.1.2 Scope

It provides a user-friendly and attractive environment.

3.1.3 Operating Environment

 This website will be operated offline in any browser including any crossplatforms.

3.1.4 User Classes

> Administrator-

- Admin must be capable to manage Course, Students, Notice and Database.
- Also they hold the responsibility to approve or reject Leave applied by students.

> Students-

 Students must be aware of the user interface of the student management system.

3.2 System Modules

> Admin Module -

- Register
- Login
- Add Student
- Manage Student
- Approve or Reject Leave
- Add and manage notice
- Add and manage Event

> Student Module -

- Login
- Add and view Leave
- Register and view Event
- View Notice

3.3 External Interface Requirements

3.3.1 Hardware Interface Requirements

- 512+ MB of RAM
- Multimedia Keyboard and Mouse
- 1.0+ GHz Processor
- o Monitor

3.3.2 Software Interface Requirements

- Operating System Any browser that runs in any Operating System.
- o Front End HTML, CSS & Bootstrap, AJAX, JavaScript
- Back End PHP, MySQL
- Software for frontend Visual Studio Code

3.3.3 User Interface

- If the student does not have an account, he/she must contact admin for addmission. Once admitted, the student can login with his/her credentials.
- The Admin can register his/her account if not created. Once created, the admin can log in.
- If the entered credentials of admin/atudent are incorrect, the error message is shown and then redirected to same login page.

3.4 Non-functional Requirements

3.4.1 Performance Requirements

- Overall System should be fast and error free.
- It should have built in error checking and correction facilities.
- The system should be able to handle large amount of data.

3.4.2 Security Requirements

o Administrator should have more rights than students.

3.5 Feasibility Study

A feasibility study is a preliminary investigation of a proposed system to decide whether the system can run smoothly with the organization.

3.5.1 Operational Feasibility: -

 Operational feasibility is the measure of how well a proposed system solves the problems, and takes advantage of the opportunities identified during scope definition and how it satisfies the requirements identified in the requirements analysis phase of system development.

3.5.2 Technical Feasibility: -

- Technical feasibility determines whether the work for the project can be done with the existing equipment, software technology and available personal.
- Technical feasibility is concerned with specifying equipment and software that will satisfy the user requirement.

3.5.3 Economic Feasibility: -

- Economic feasibility determines whether there are sufficient benefits in creating to make the cost acceptable, or is the cost of the system too high.
- So this signifies cost benefit analysis and savings on the behalf of the cost benefit analysis.

3.5.4 Schedule Feasibility: -

- How long will it take to get the technical expertise?
- We may have the technology, but that doesn't mean we have the skills required to properly apply that technology.

SYSTEM ANALYSIS AND MODELLING

4.1 Normalization

4.1.1 De-Normalized form-

Stud id	First name	Last name	email	pass	Re pass	Course id	stud img	gender	phone	Address	role
4	hitesh	chau	hitesh@g mail.com	1	1	1	img.	male	9859858585	jamnagar	Student
5	khush al	rajani	k@gmail. com	1	1	2	k.jpg	male	8585454578	jamnagar	Student
8	Yash	Ashwa r	y@gmail. com	1	1	1	stu_ img. jpg	male	8585454578	Jamnagar	Student

4.1.2 Normalized form-

A. 1st Normal Form:

1. Table Name: Admin

Primary Key: admin_id (Auto Increment)

Admin id	First name	Last name	email	pass	Re pass	admin img	gender	phone	Address	role
1	Raj	Patel	raj@gm ail.com	1	1	img.p ng	male	9859858585	jamnagar	Admin

2. Table Name: course

Primary Key: course_id (Auto Increment)

Course_id	Course_name
1	BCA
2	BBA
3	всом

3. Table Name: Event

Primary Key: event_id (Auto Increment)

Event id	Event name	Event category	Event_date	Reg_startdate	Reg_enddate	Event_desc
1	FootBall	sport	13-09-2023	1-09-2023	3-09-2023	fsdccczczc
2	Antakshari	music	3-10-2023	13-09-2023	15-09-2023	fsdfsfssfsf
3	Kabbaddi	sport	1-11-2023	13-10-2023	15-10-2023	sfssfsffsfsf

B. 2nd Normal Form:

1. Table Name: stud_register

Primary Key: stud_id (Auto Increment)

Foreign Key: course_id

stud_ id	First name	Last name	email	pass	Re pass	studi mg	gender	phone	Address	role	Course_id
4	hitesh	chau	hitesh@ gmail.co m	1	1	img.p ng	male	9859858585	jamnagar	Student	вса
5	khush al	rajani	k@gmai l.com	1	1	k.jpg	male	8585454578	jamnagar	Student	BBA

2. Table Name: notice

Primary Key: notice_id (Auto Increment)

Foreign Key: stud_id

notice_id	stud_id	Date	Subject	Message
1	hitesh	13-09-2023	To meet the principal	To discus our studies
2	khushal	13-09-2023	To meet the principal	To discus our studies
3	Yash	13-09-2023	Submission	To submit our assignments

4.2 **Data Dictionary**

1) stud_register

Column	Туре	Null	Comments	Links to
stud_id	int(11)	No	Primary Key	
firstname	varchar(50)	No		
lastname	varchar(50)	No		
email	varchar(50)	No		
password	varchar(50)	No		
repassword	varchar(50)	No		
stud_img	varchar(5000)	No		
gender	varchar(20)	No		
phone	varchar(10)	No		
address	varchar(100)	No		
course_id	int(11)	No	Foreign Key	course -> course_id
role	varchar(50)	No		

2) course

Column	Туре	Null	Comment	Links to
course_id	int(11)	No	Primary Key	
course	varchar(20)	No		

3) admin

Column	Туре	Null	Comments	Links to
admin_id	int(11)	No	Primary Key	
firstname	varchar(200)	No		
lastname	varchar(200)	No		
gender	varchar(200)	No		
role	varchar(11)	No		
email	varchar(200)	No		
password	varchar(200)	No		
re_password	varchar(200)	No		
phone	varchar(200)	No		
address	varchar(200)	No		
admin_img	varchar(2000)	No		

4) event

Column	Туре	Null	Comments	Links to
event_id	int(11)	No	Primary key	
event_name	varchar(200)	No		
event_category	varchar(200)	No		
event_date	date	No		
reg_startdate	date	No		
reg_enddate	date	No		
event_desc	varchar(1000)	No		

5) leave

Column	Туре	Null	Comments	Links to
leave_id	int(11)	No	Primary Key	
stud_id	int(11)	No	Foreign Key	stud_register -> stud_id
leave_type	varchar(200)	No		
leave_from	date	No		
leave_to	date	No		
leave_description	varchar(500)	No		
leave_status	int(11)	No		
ApprovalRemarks	varchar(200)	No		

6) notice

Column	Туре	Null	Comments	Links to
notice_id	int(11)	No	Primary Key	
stud_id	int(11)	No	Foreign Key	stud_register -> stud_id
date	date	No		
subject	varchar(200)	No		
message	varchar(700)	No		

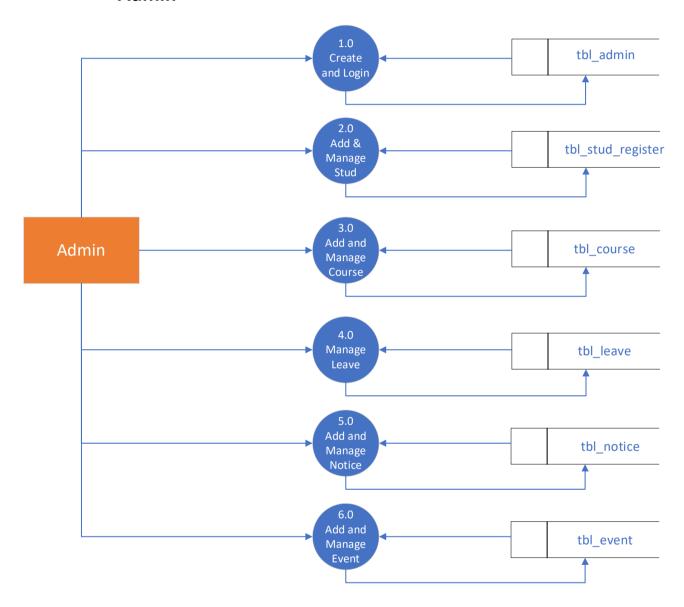
4.3 Data Flow Diagram-

4.3.1 Context Level Diagram-

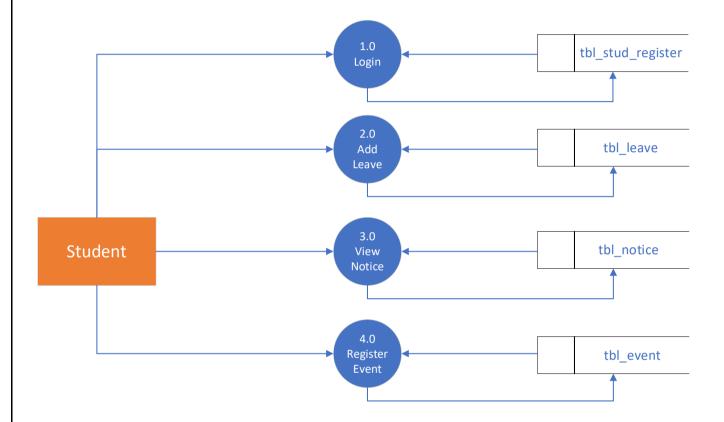


4.3.2 First Level Diagram-

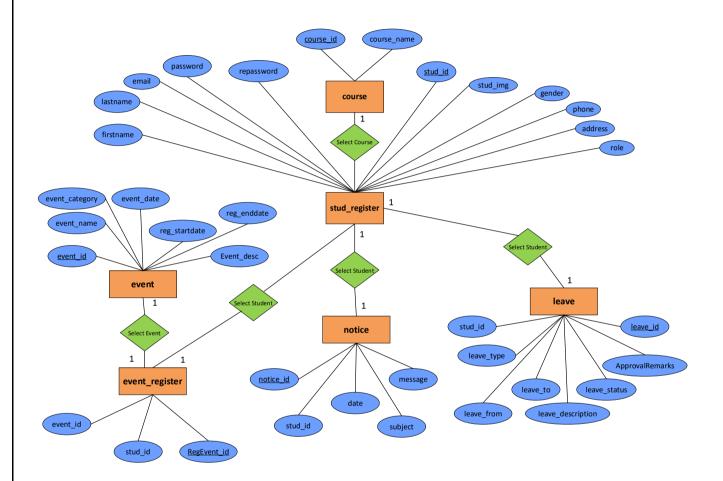
• Admin



• Student

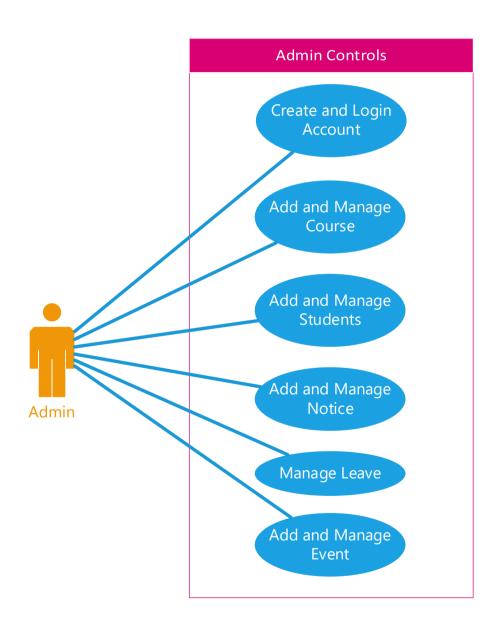


4.4 E-R Diagram-

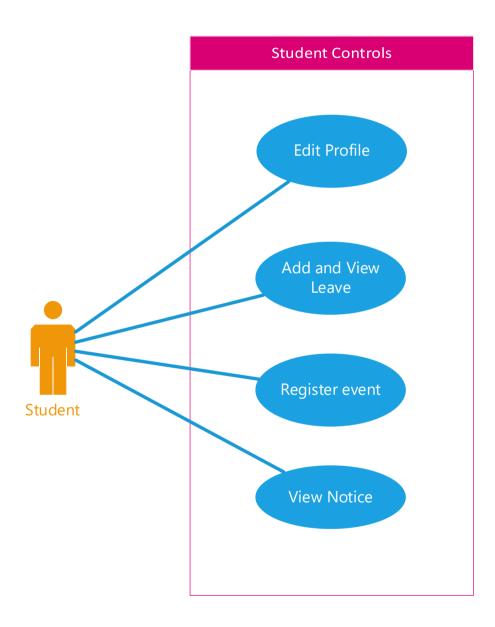


4.5 **Use Case Diagram:**

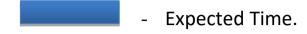
1) Admin-



2) Student-



4.6 Gantt Chart



- Actual Time.

No.	Task	June	July	August	September
1	Requirement				
	Gathering And				
	SRS				
2	System Analysis				
3	System Design				
4	System				
	Development				
5	System Testing				

2

3

4

Enter Email

Enter Password

Click Login

Button

Invalid

Email

Same As

Expected

Same As

Expected

FAIL

PASS

PASS

CHAPTER 5

TEST CASES

Login Module					
TEST CASE No. 1		TEST CASE DES	IGN DATE: 1	./Sep/2023	
TEGT	EITLE LANCE NAVILLE	TEST CASE EVE		,	
IEST	TITLE: Login Modu	ie rest	TEST CASE EXE	CUTION DATE	:
			1/Sep/2023		
DESCR	RIPTION: In this tes	st case Login mo	dule would be t	ested	
PRECC	ONDITION : Login A	ctivity must be	working		
STEP	TEST STEP	TEST DATA	EXPECTED	ACTUAL	STATUS
No.	No. RESULT RESULT				
1	Navigate to	Login Activity	Login Activity	Same As	PASS
	Login Page		is visible	Expected	

Email is

accepted

Password is

accepted

Check

Credentials

admin@gmail

admin123

Button Click

^{*} Note :- Email is not accepted in above test case due to invalid format.

Add Course Module				
TEST CASE No. 1	TEST CASE DESIGN DATE: 2/Sep/2023			
TEST TITLE : Add Course Module Test	TEST CASE EXECUTION DATE : 2/Sep/2023			

DESCRIPTION: In this test case Add course module would be tested

PRECO	PRECONDITION : Add Course Activity must be working						
STEP	TEST STEP	TEST DATA	EXPECTED	ACTUAL	STATUS		
No.			RESULT	RESULT			
1	Navigate to	Add Course	Add Course	Same As	PASS		
	Add Course	Activity	Activity is	Expected			
	Page		visible				
2	Enter Course		Course is	Course is	FAIL		
			accepted	empty			
3	Click Add	Button Click	Check	Same As	PASS		
	Button		Credentials	Expected			

^{* &}lt;u>Note</u> :- Course is not accepted in above test case due to empty course field.

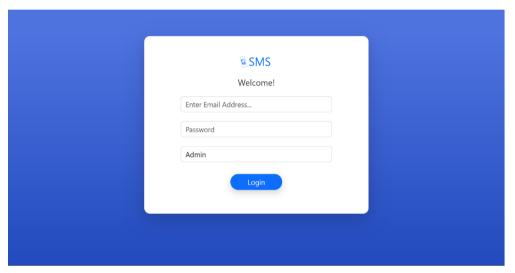
Register Event Module					
TEST CASE No. 1	TEST CASE DESIGN DATE: 3/Sep/2023				
TEST TITLE: Register Event Module Test	TEST CASE EXECUTION DATE : 3/Sep/2023				

DESCRIPTION: In this test case Reg Event module would be tested

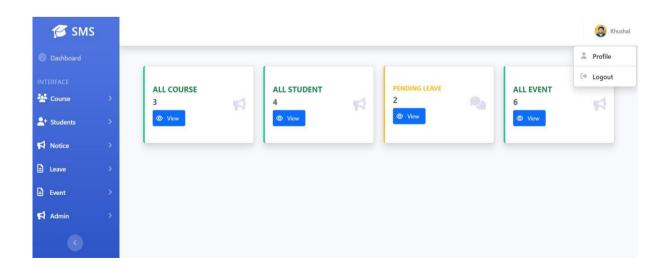
PRECONDITION: Reg event Activity must be working						
STEP	TEST STEP	TEST DATA	EXPECTED	ACTUAL	STATUS	
No.			RESULT	RESULT		
1	Navigate to	Register	Reg Event	Same As	PASS	
	Event Page	Event Activity	Button is	Expected		
			visible			
2	Click Register	Click Event	Event is	Student not	FAIL	
	Button	not Generate	Registered	found		
3	Click Register	Generate	Event is	Same As	PASS	
	Button	Click Event	Registered	Expected		

SCREENSHOTS

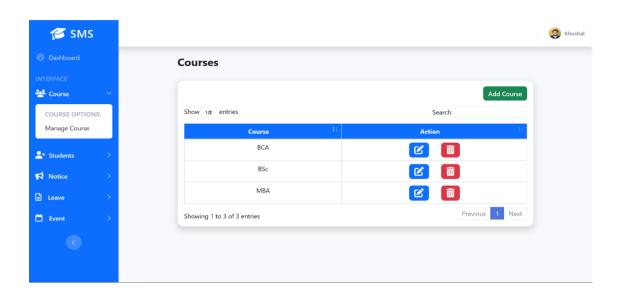
- 1) Admin Side-
- Login-



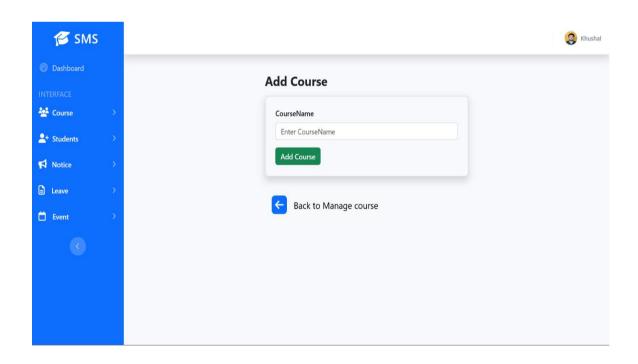
- 6.1 This page displays the login form of admin
- Admin Dashboard-



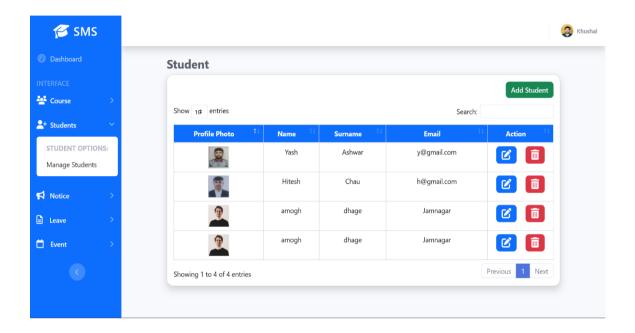
Manage Course-



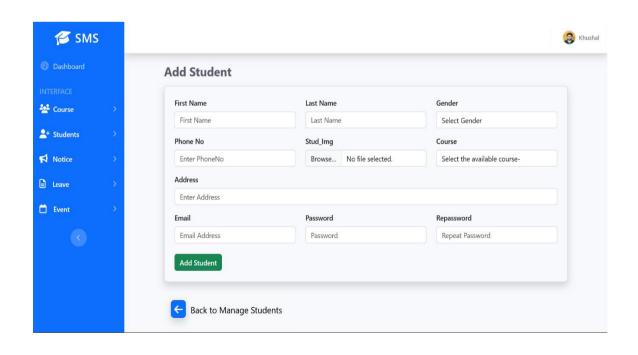
Add Course-



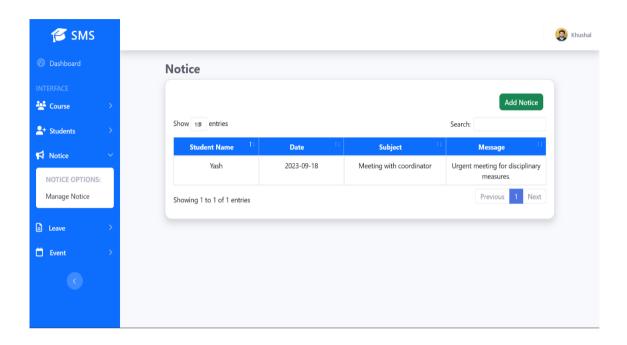
Manage Students-



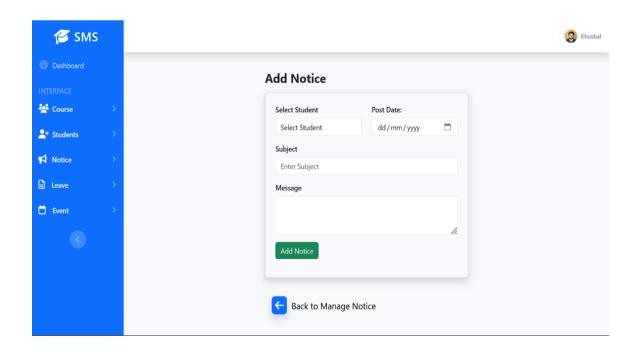
Add Students-



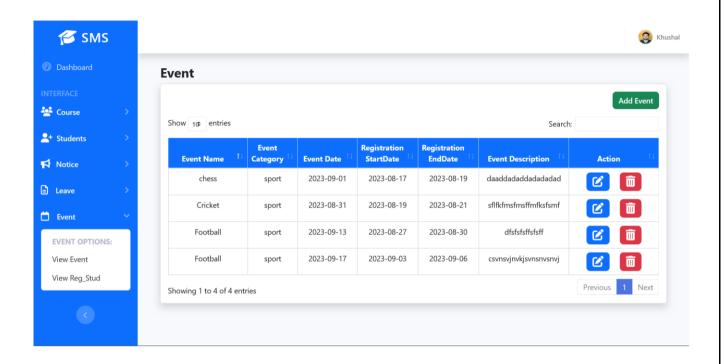
Manage Notice-



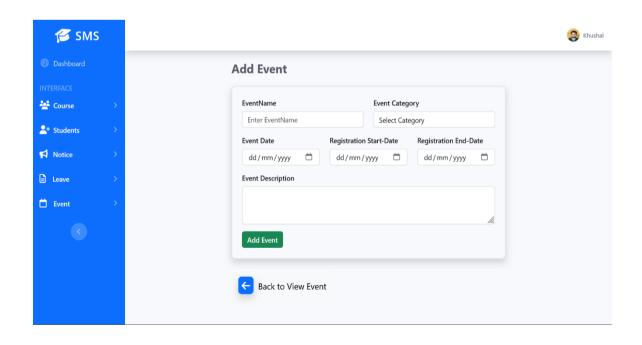
Add Notice-



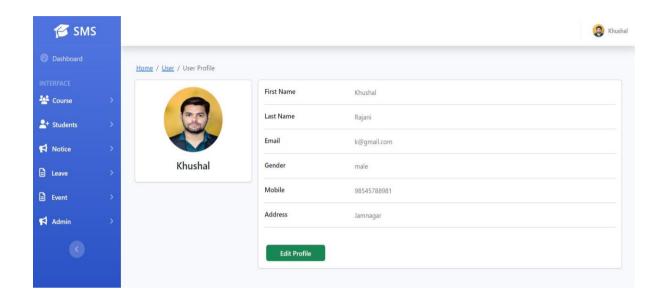
View Events-



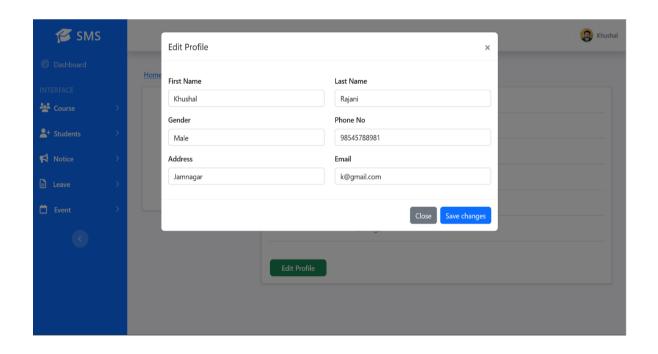
Add Event-



Profile Page-



• Update Profile Details-

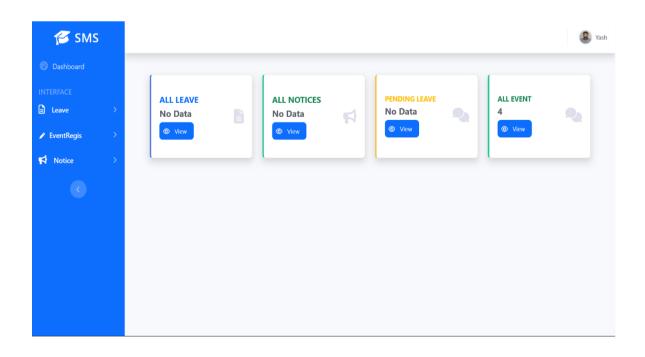


2) Student Side-

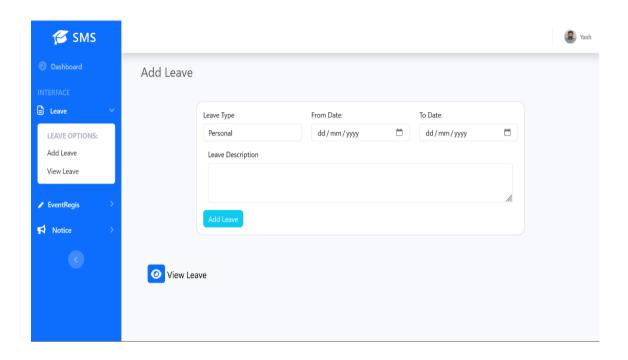
• Login



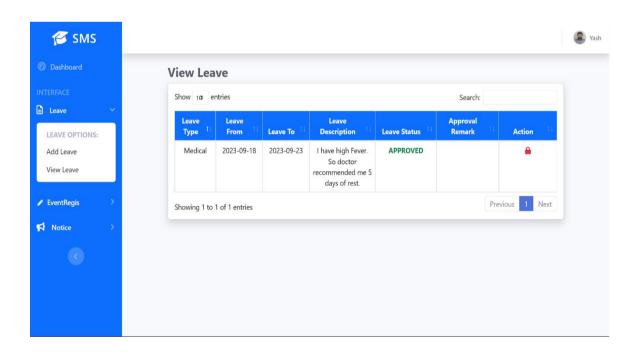
DashBoard-



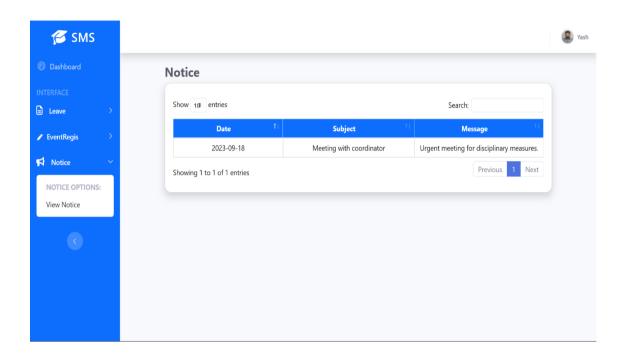
Add Leave-



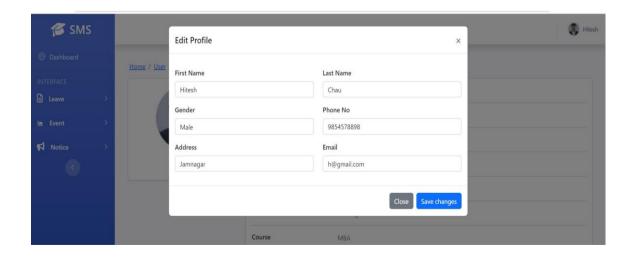
View Leave-



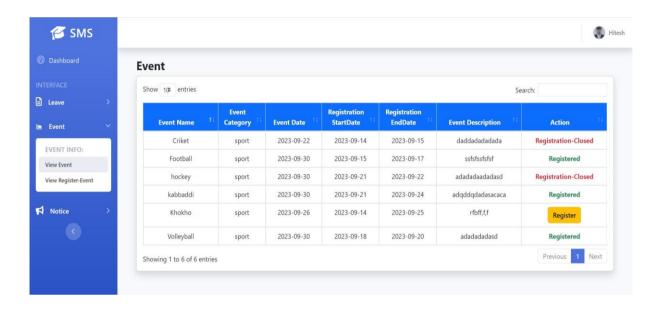
View Notice-



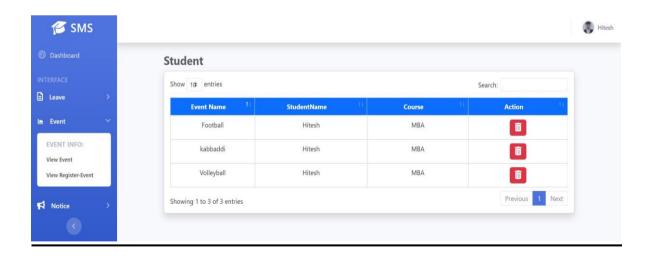
• Update Student Profile-



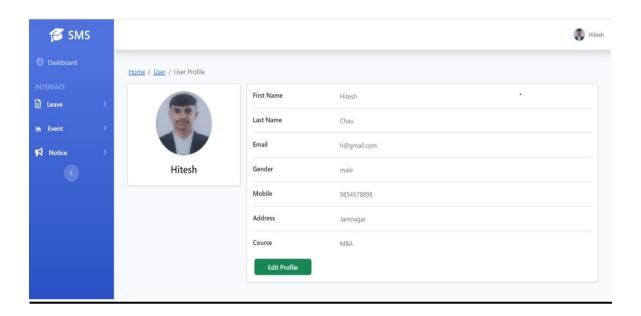
View events-



• View Registered events-



• View Student Profile-



LIMITATIONS AND FUTURE ENHANCEMENTS

- Limitations :-
 - The limitation of SMS is that, only one admin can be assigned to the system.
- Future Enhancement:-
 - In future, overall web designing will be improved.
 - Profile based progress work would be shown to user in future.
 - All other limitations would be removed.
 - Solutions will be given for admin side for adding admin.

CONCLUSION

The project report entitled SMS has been completed successfully. This website has been developed with much care that is free of errors and at a same time it is efficient and less time consuming. I have tried my level best to make this website as dynamic as possible. Also provision is provided for future development in the website. This website will be approved and implemented soon.

REFERENCES AND BIBLIOGRAPHY

All the references listed below were used to develop and design this website and were also used for documentation. I am thankful to each and every person who helped me and supported for this project completion.

- Websites:-
- www.stackoverflow.com
- www.lucidchart.com