Project Report

On

College Management System

Created By

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BCA-5

Under The Guidance of

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Submitted To

GEETANAJALI COLLEGE OF COMPUTER SCIENCE & COMMERCE

Affiliated To

SAURASTRA UNIVERSITY

For Academic Year

2022-23

POJECT REPORT

Acknowledgement

The project on **COLLAGE MANAGEMENT SYSTEM** is developed in **C#.NET** Language at GEETANJALI COLLEGE OF COMPUTER SCIENCE & COMMERCE.

I would like to acknowledge that my project has been completed and I am ensuring that, in this accomplishment, I would like to express my special gratitude to all my teachers and specially to **PROF. KISHORSINH VALA** without their guidance and feedback it is not possible to complete this assignment.

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INTRODUCTION

Abstract

The main objectives of this project are to maintain information about students and other activities like attendance, fees payments as well as user can change their security password.

Admin can add new user.

Purpose

- To reduce the headache of maintaining the record of students' related documents.
- Searching will become more efficient and faster in comparison to manual searching.
- It will also provide assurance that each employee of the college marked their attendance timely.
- Overall, it will reduce the cost and time of the college head in taking care of the college.

Project Profile

Project Title:	Collage Management System
Development Software:	Visual Studio
Front End Tool:	C#.NET
Back End Tool:	SQL Server
Academic Year:	2022-23
Developed By:	KINJAL G. PARMAR
Submitted To:	GEETANJALI COLLEGE

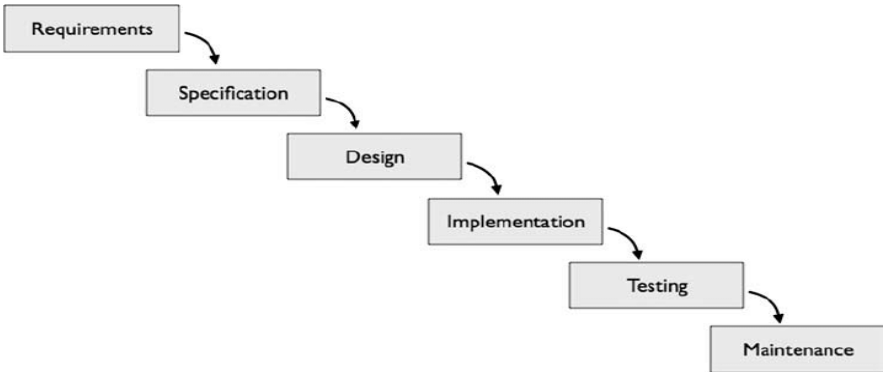
Process Model

The Process Model used in our projects "College Management System" is waterfall model.

➢ The Waterfall Model:

The waterfall model is a sequential design process, used in software development processes, in which progress is seen as flowing steadily downwards (like a waterfall) through the phases of Conception, Initiation, Analysis, Design, Construction, Testing, Production/Implementation and Maintenance.

The waterfall development model originates in the manufacturing and construction industries: highly structured physical environments in which after-the-fact changes are prohibitively costly, if not impossible. Since no formal software development methodologies existed at the time, this hardware-oriented model was simply adapted for software development.



➢ Reason the waterfall model in the software development cycle:

→ Since we have well known, clean and fixed requirements therefore it best suits for our software development.
→ Our product definitions are stable.
→ Technology is clearly understood.
→ The project is short.

- **Advantages of the waterfall model:**

  → This model is simple and easy to understand and use. In, this model phases are processed and completed one at a time and phases do not overlap.

  → Waterfall model works well for smaller projects where sequence is very well understood.

Software Resources

Frontend Design Tool: Microsoft Visual Studio 2010

Backend Design Tool: Microsoft SQL server

Code-Behind Language: C#.NET

- **Functionality:**
  - Login/Logout
  - Add, Update Student Details
  - Add Attendance
  - Student Fees Payment
  - Add, Delete Course
  - Create new User[admin]

List Of Modules

- Login
- Student Module
- Fees Module
- Course Module
- Attendance Module

Data Dictionary

User Login Table

columns	Datatype	Constraints
UserId	int	PK
UserName	char (10)	Not null
Password	varchar (20)	Not null

Student Details Table

columns	Datatype	Constraints
Id	int	PK
RollNo	varchar (3)	Not null
StudentName	varchar (15)	Not null
Gender	char (10)	Not null
Address	varchar (50)	Not null
DateOfBirth	varchar (15)	Not null
AdmissionDate	varchar (15)	Not null
PhoneNo	varchar (10)	Not null
Email	varchar (20)	Not null
Shift	varchar (10)	Not null
Course	varchar (8)	Not null
Semester	varchar (1)	Not null
StudentPic	varbinary(max)	Not null

Course Table

columns	Datatype	Constraints
Id	int	PK
CourseName	varchar (10)	Not null
Semester	int	Not null

Student Attendance Table

columns	Datatype	Constraints
Id	int	PK
AttendanceDate	Varchar (10)	Not null
Attendance	Char (10)	Not null
StuId	int	FK

Fees Details Table

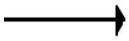
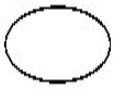
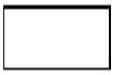
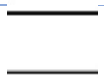
columns	Datatype	Constraints
Id	int	PK
RollNo	varchar (3)	Not null
StudentName	varchar (15)	Not null
Course	varchar (20)	Not null
Semester	varchar (1)	Not null
PaidDate	varchar (10)	Not null
TotalAmount	bigint	Not null
PaidAmount	bigint	Not null
DueAmount	bigint	Not null

Fees Manage Table

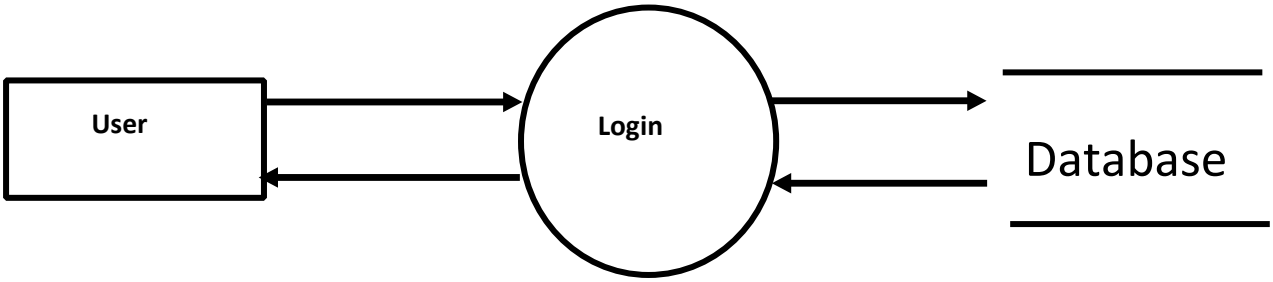
columns	Datatype	Constraints
Id	int	PK
Class	varchar (50)	Not null
Amount	bigInt	Not null

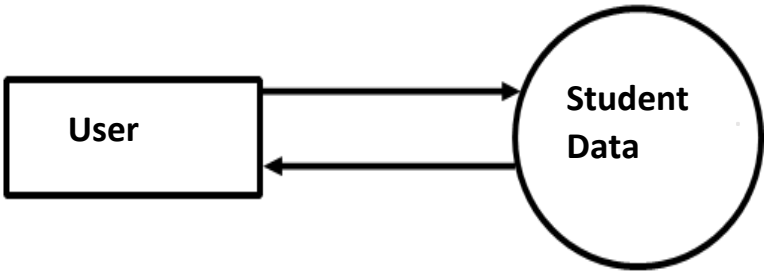
DFD [Data Flow Diagram]

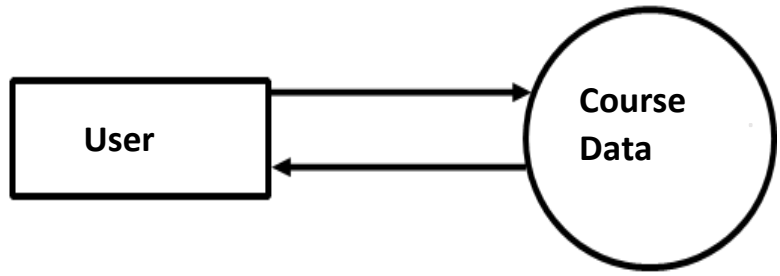
Data flow diagram symbol

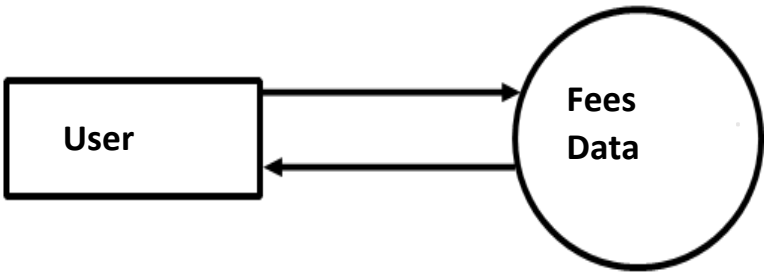
Symbol	Description
	**Data Flow** – Data flow are pipelines through the packets of information flow.
	**Process :** A Process or task performed by the system.
	**Entity :** Entity are object of the system. A source or destination data of a system.
	**Data Store :** A place where data to be stored.

➢ 0 level DFD (Context Diagram):

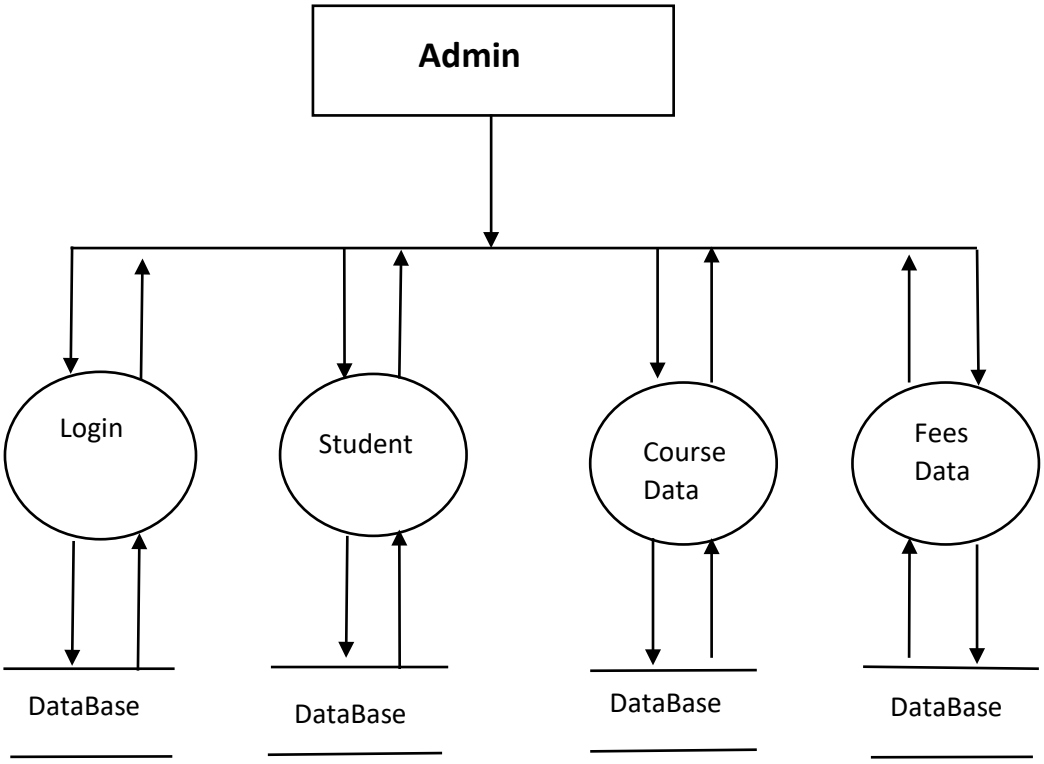




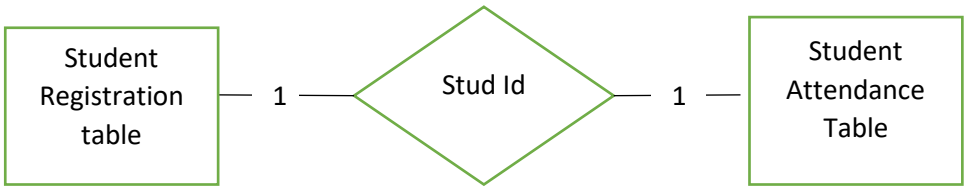

User
Course
Data


User
Fees
Data

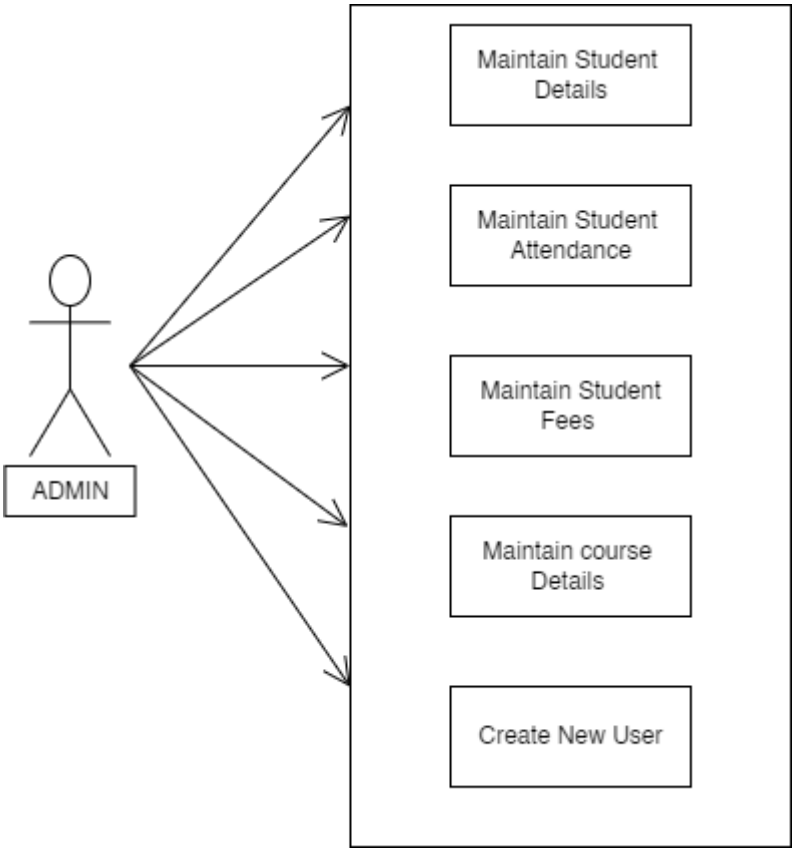
➢ Level 1 DFD :


Admin
Login
Student
Course Data
Fees Data
DataBase
DataBase
DataBase
DataBase

ERD [Entity Relationship Diagram]



Use Case Diagram



Test Cases

The testing phase is an important part of the software developed. It is the process of finding errors and missing operations and a complete verification to determine whether the objectives are met and the user requirements are satisfied.

Login Screen:

Serial No.	Condition to be Check	Test Data	Expected Output	Remarks
1	If Fields are empty	Value of form fields.	Alert the user to enter the fields and then proceed.	SUCCESSFUL
2	If incorrect username or password	Value of Textbox of Username & password	Alert user that "Invalid Username or password" And stay in same page.	SUCCESSFUL

Student Add & Edit Screen:

Serial No.	Condition to be Check	Test Data	Expected Output	Remarks
1	If Fields are empty	Value of form fields.	Alert the user to enter the fields and then proceed.	SUCCESSFUL
2	If Email is not in proper format	Value of Textbox of email	Alert user that "Email Must be in proper Format " And stay in same page.	SUCCESSFUL
3	If alphabets input in Phone no field	Value of Phone No Text Field	Alert user that "Only digits are Allowed"	SUCCESSFUL
4	If Phone NO Value < 10	Value of Phone No Text Field	Alert user that "Phone no length must be 10 digits"	SUCCESSFUL
5	If user search for student, whose data is not available	Value of Filter Text Field	Alert user that "No Records Found"	SUCCESSFUL

Student Fees Page:

Serial No.	Condition to be Check	Test Data	Expected Output	Remarks
1	If Fields are empty	Value of form fields.	Alert the user to enter the fields and then proceed.	SUCCESSFUL

Course Details Page:

Serial No.	Condition to be Check	Test Data	Expected Output	Remarks
1	If Any Field value is empty	Value of form text fields.	Alert the user to enter the field value	SUCCESSFUL
2	If Inputs Duplicate Values	Value Of All Fields	Alerts The user That "Duplicate value Found"	SUCCESSFUL

Create New User Page:

Serial No.	Condition to be Check	Test Data	Expected Output	Remarks
1	If Any Field value is empty	Value of form text fields.	Alert the user to enter the field value	SUCCESSFUL
2	If password & Conform password does not match	Value Of Password & Conform Password Fields	Alerts The user That "Password Characters Does not match"	SUCCESSFUL

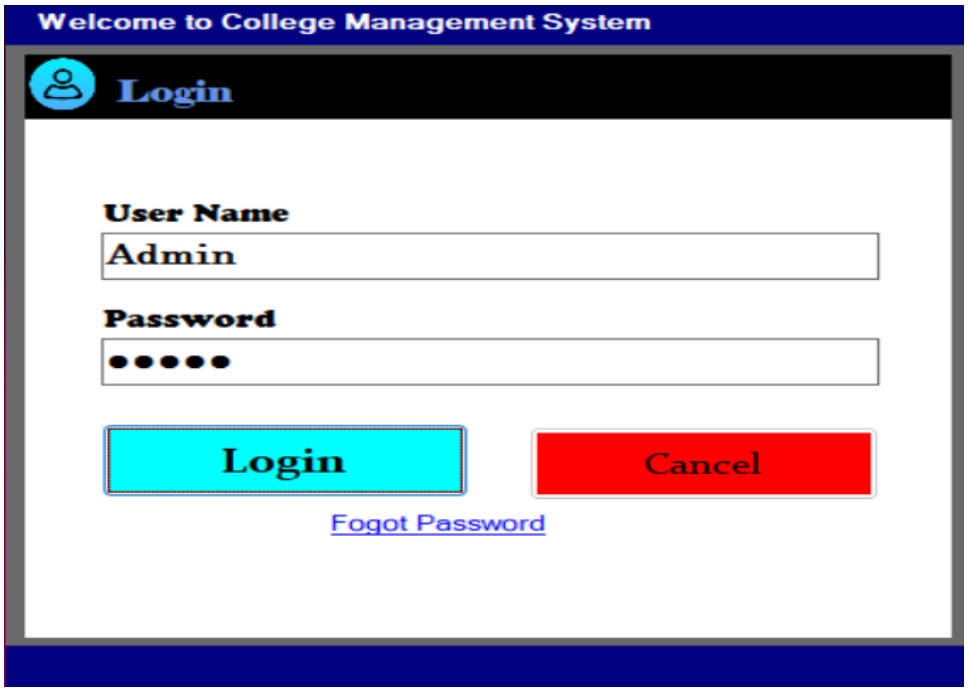
Create New User Page:

Serial No.	Condition to be Check	Test Data	Expected Output	Remarks
1	If Any Field value is empty	Value of form text fields.	Alert the user to enter the field value	SUCCESSFUL
2	If password & Conform password does not match	Value Of Password & Conform Password Fields	Alerts The user That “Password Characters Does not match”	SUCCESSFUL

Snapshots

- Loading Screen:

➢ Login Screen:



→ In this page user must give username & password.

→ If the password is correct, then he will be redirect to home page else he gets the prompt.

→ If the user forgot the password, then he will be able to change his password from this page.

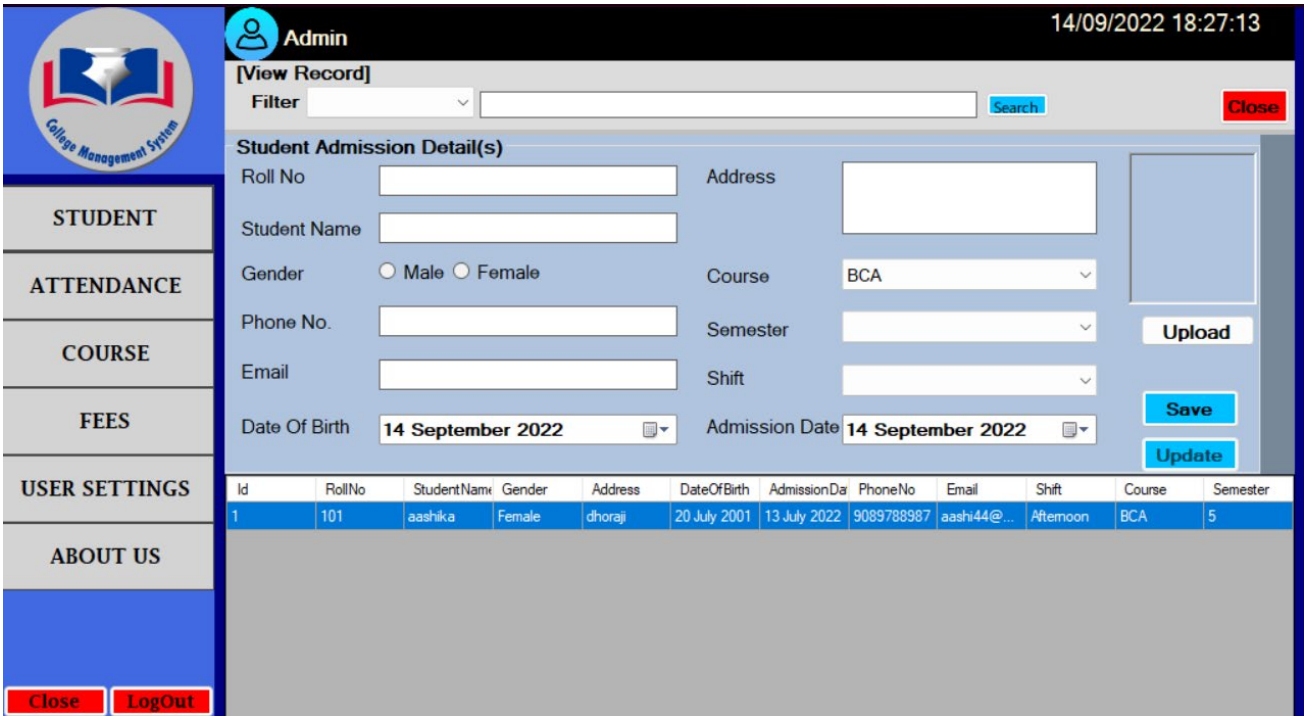
➢ Home Page:

→ In this section of page user get all options & access functionality of it.

→ To close the software user can use either close button or can press ESC key from keyboard.

→ To Click on logo user will get back on This page.

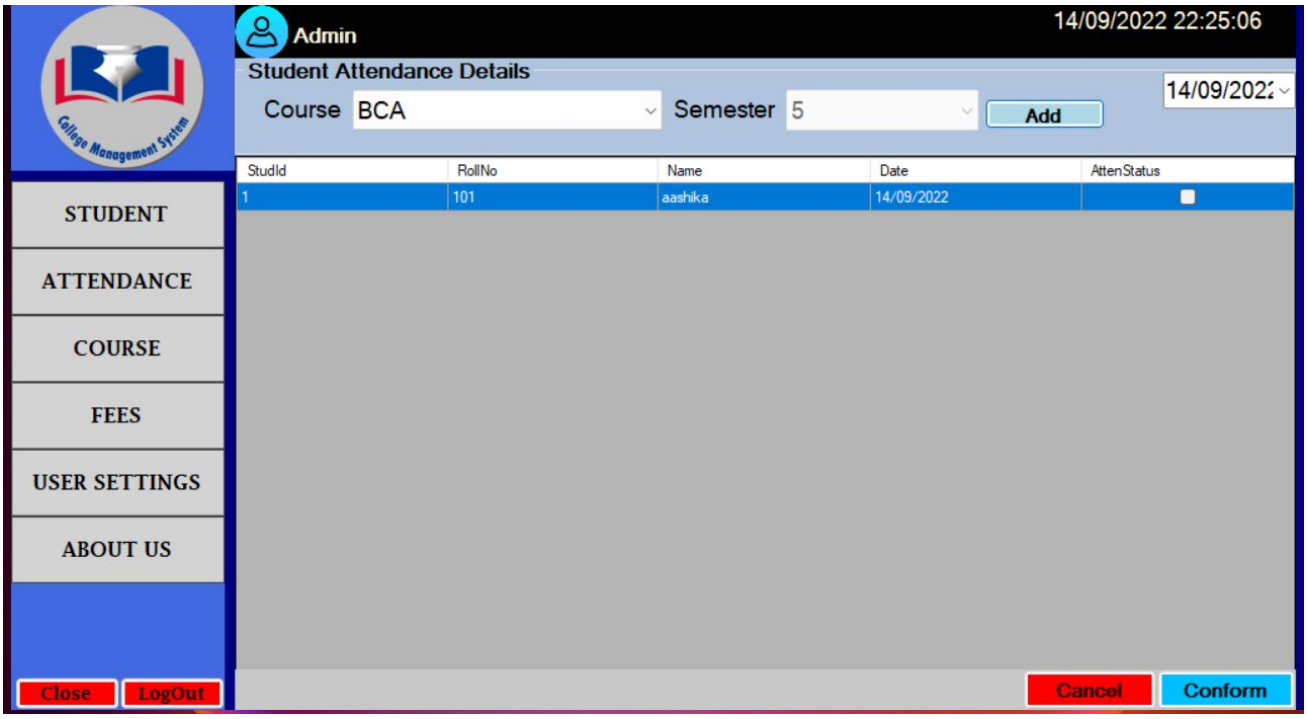
➢ Student Add & Edit Page:



→ In this section user can add new student & edit the student information.

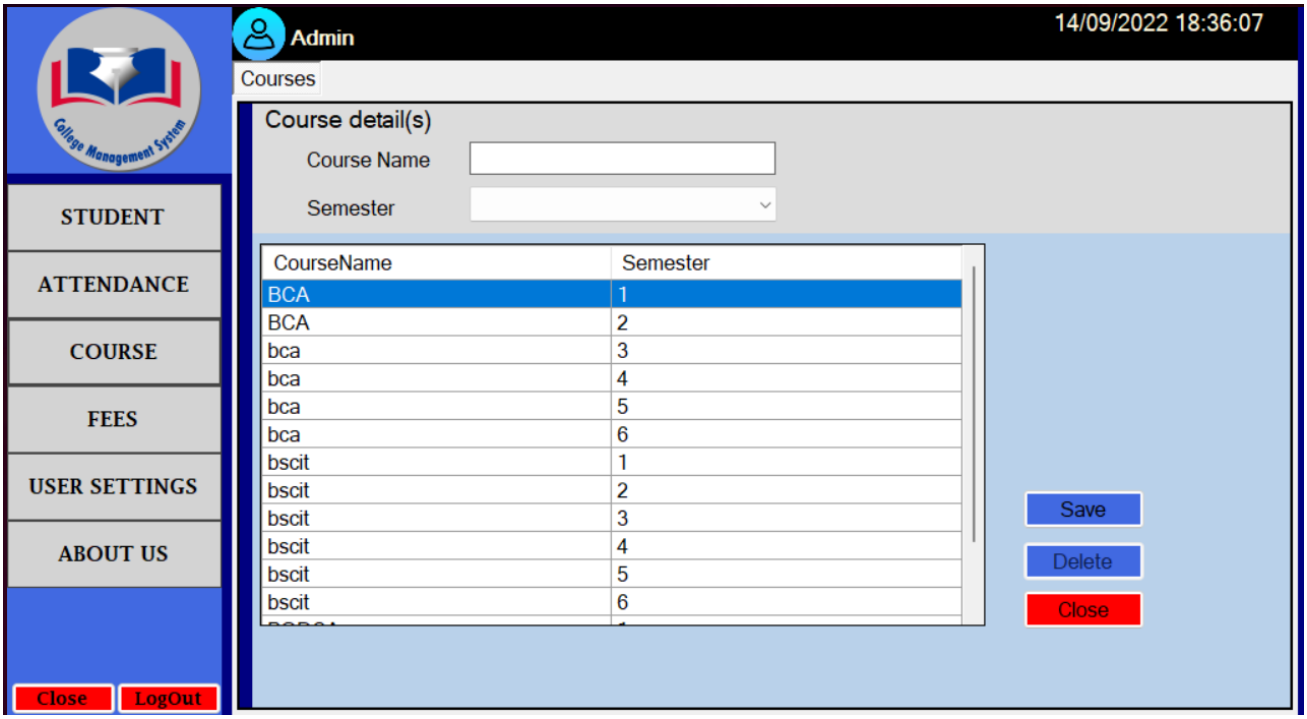
→ He also able to search student & also can show available all student details.

➢ Student Attendance Page:



- ❖ In this page user can take attendance of students.
- ❖ Cancel button used for going back to home page.

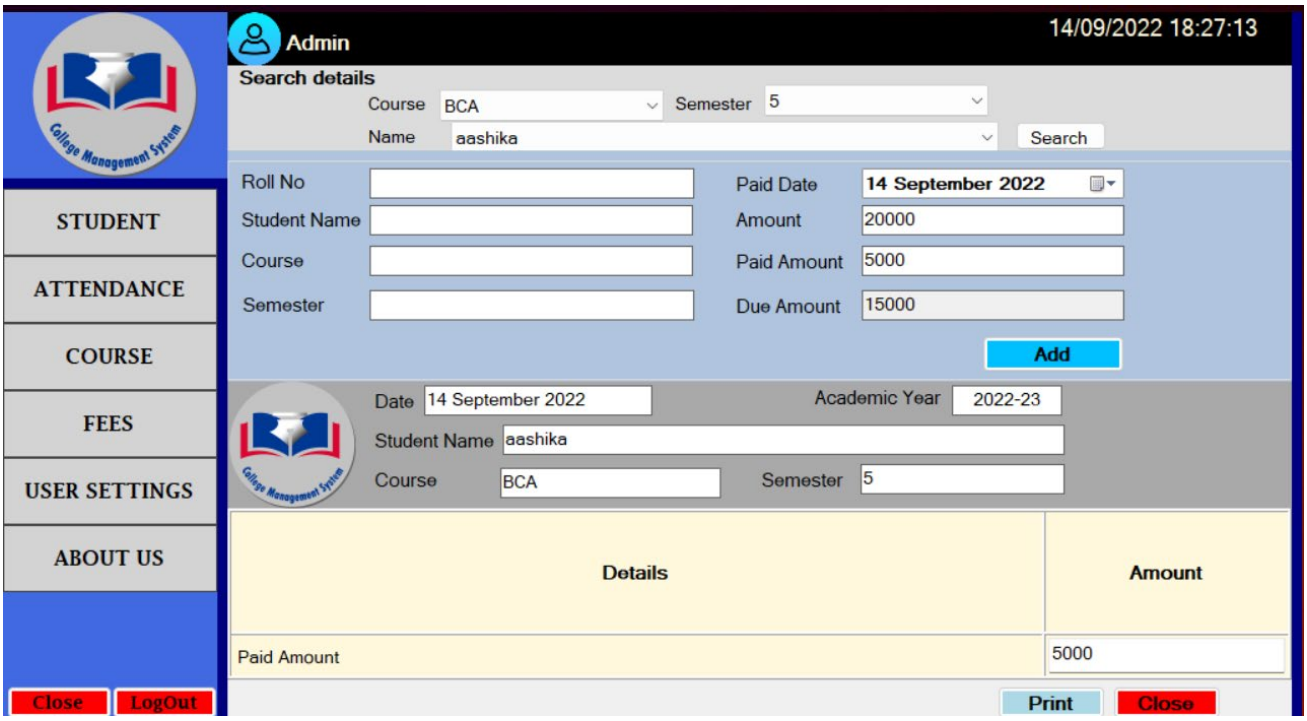
➢ Course page:



→ In the course details page user can add & modify the course details .

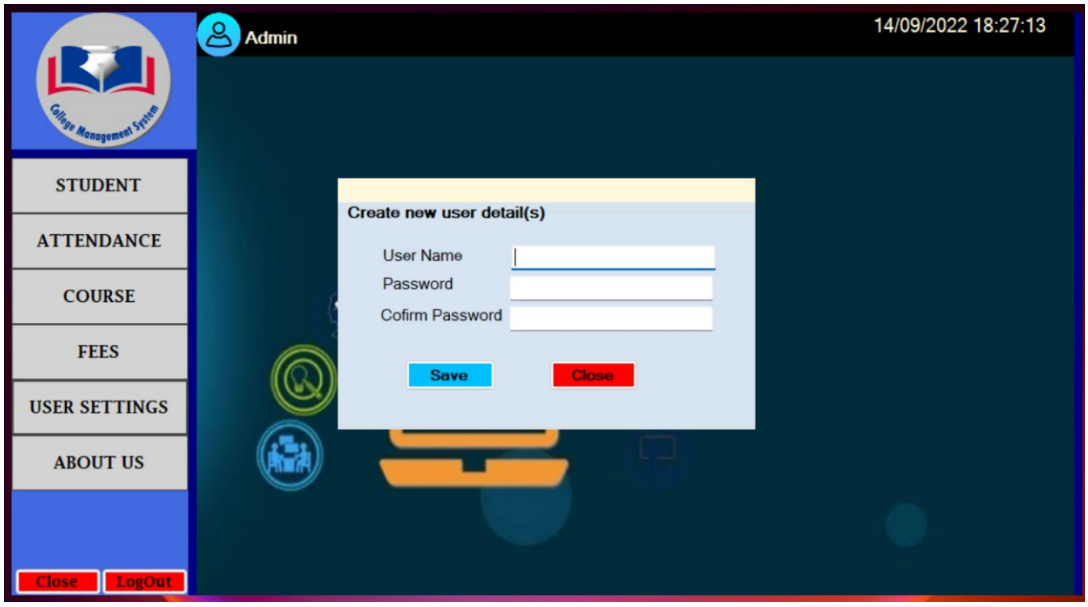
→ Close button is used for go back to home page.

➢ Fees Payment page:



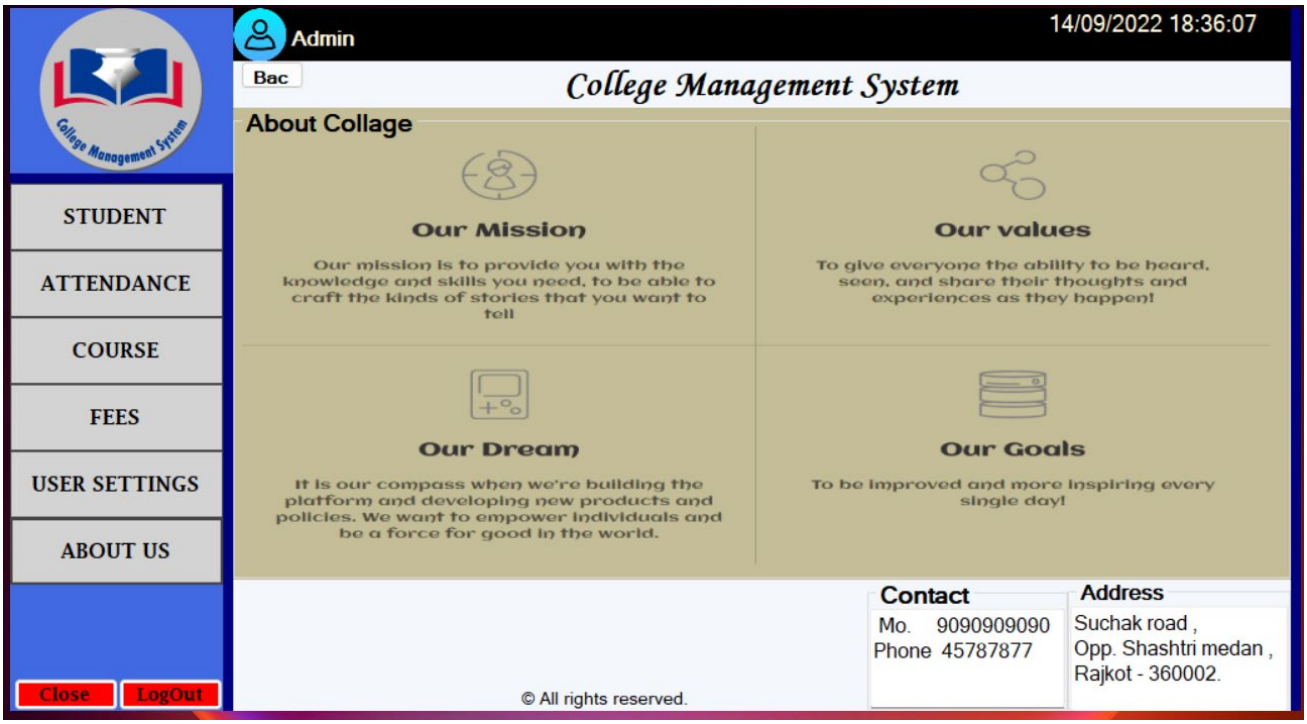
- In this page student fees data should be entered.
- After adding details the paid fees receipt will be generated and also can print that.

➢ Create User Page:



→ In the Create user page admin can add new user.

➢ About Us Page:



❖ In this page user can know about college like what are goals, what are missions etc.

Limitations:

Though we tried our best in developing this software but as limitation are major part of any software so are of our software. Some limitation of innovator to investors portal are as follows:

→ Limited functionality is available.
→ If database gets big amount of data, it gets much time to load.
→ Specific user roles are not provided in this software. That's why this can only be used by admin.

Future Enhancement

To conclude, Project data grid works like a component which can access all the databases and pick-ups different function by admin. Trying to remove the many limitations and add some more functionality in future.

- Account Module would be implemented with all features as per user requirements.
- In Login module Students will be added as user so they can use CMS.
- It would be more user-friendly software.
- We would give more advance software of CMS with more functionality.
- Will Implement the backup mechanism to take Backup of database.

Conclusion

The project entitled as College Management System is the system that deals with the issues related to a particular institution.

- This project is successfully implemented with all the features mentioned in system requirements specification.
- The application provides appropriate information to users according to the chosen service.
- The project is designed keeping in view the day-to-day problems faced by a college.
  Deployment of our application will certainly help the college to reduce unnecessary wastage of time in personally going to each department for some information.

Awareness and right information about any college is essential for both the development of student as well as faculty. So, this serves the right purpose in achieving the desired requirements of both the communities.

Webliography

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- https://stackoverflow.com/
- https://www.c-sharpcorner.com/