STUDENT MANAGEMENT SYSTEM

A PROJECT REPORT

Submitted by

JHA SHUBHAMKUMAR (ET23MTCA020) SHAH RUCHITKUMAR (ET23MTCA060) SOLANKI KHUSHALKUMAR (ET23MTCA062)

Under the Guidance Of Prof. Preksha Parmar

In fulfillment for the subject Software Project-1 (MTCA16106)

Master of Computer Application

At



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Sarvajanik Education Society

Sarvajanik College of Engineering & Technology, Surat. Master of Computer Application Department





Date: 22/12/2023

CERTIFICATE

This is to certify that the project entitled "STUDENT MANAGEMENT SYSTEM" has been submitted by JHA SHUBHAMKUMAR (ET23MTCA020), SHAH RUCHITKUMAR (ET23MTCA060), SOLANKI KHUSHALKUMAR (ET23MTCA062) towards fulfillment for the subject Software Project – I (MTCA16106) in 1st Semester of MCA of Sarvajanik University, Surat during the academic year 2023-24.

Guide Name: Prof. Preksha Parmar	
(Guides' Signature)	Prof. Gayatri Kapadia Head, M.C.A. Department
Examiners' Signature:	
1	
2	

Acknowledgement

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1. Abstract

2. Software Specification

Operating System:

- ➤ The Student Management System is designed to operate smoothly across all major platforms like Windows, macOS and Linux.
- ➤ Compatibility with diverse operating systems ensures accessibility for a broad user base.
- ➤ Whether users are on Windows, macOS or Linux the system guarantees a consistent and reliable performance.

Operating system	 Microsoft windows 7 or above Ubuntu 16.04 LTS or above MacOS 12 or above
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Hardware Configuration:

Processor:

➤ The Student Management System is optimized for a minimum Intel Core i3 processor, ensuring responsive performance during runtime.

Processor	Intel i3 or higher

RAM:

A minimum of 4 GB RAM is recommended to provide a smooth and efficient user experience while handling files and processing data.

RAM	4GB or higher	

Storage:

➤ The system requires approximately 128 GB of storage space, accommodating the application's executable files and data storage for student and teacher's records.

Development Environment:

➤ The Student Management System is designed to be developed and compiled using the Dev C++, Turbo C or Visual Studio integrated development environments (IDEs).

Development Environment	Dev C++, Turbo C or Visual Studio

Programming Language:

➤ This system is implemented in the C programming language, ensuring compatibility with the compilers provided by Dev C++ or Turbo C.

Programming Language	C OR C++
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3. Scope & Objectives

The primary objective of the Student Management System is to store and maintain student and teacher's data efficiently through console-based application. This system aims to achieve operational excellence by providing a centralized platform for managing various activity of school or colleges through this application.

In this system real-time data updation is done into the files. The main goal of the Student Management System is to improve the accuracy and efficiency in the student records management.

The system is developed for Administration Staff, Teacher and Student to maintain records. The Administration Staff is the main user of this system. They can access all the data related to student and teachers and they can manipulate it according to their needs. They can manage course details, teacher's details, students detail along with this an additional fee payment facility is also given in this application.

In the context of the Student Management System, the aim is to provide administration staff with a convenient and straightforward method for maintaining records through the command-line interface. This eliminates the need for maintaining physical files or books with the goal of enhancing accessibility.

The goal of this system is to increase administrative efficiency by simplifying the data maintaining process.

Through streamlined reservation handling and automated updates, the Console Table Booking System reduces the workload on restaurant staff, leading to quicker and more accurate reservation processing.

4. Database Design

File System for Data Storage

> The Student Management System uses file system as the primary mechanism for storing and managing student's and teacher's data.

File Structure:

Course Detail
Course ID
Course Name
Fees
Subjects [6]

Teacher Detail
Teacher ID
Name
Department
Date of Joining
Salary
Mobile No
Email
Password

Student Detail
Enrollment No
Name
Date of Birth
Department
Mobile No
Email
Password
Fee
Marks [Subject] [6]

- **4.1** Use Case Diagram
- **4.2 Activity Diagram**
- 4.3 ER Diagram

5. System Design

5.1 Screenshot

Welcome Page

 	STUDENT MANAGEMENT SYSTEM		======================================	
1				+
		MENU		 +
	Option		Login As	
-	1	I	Admin	+
	2	j	Teacher	j
	3	j	Student	İ
	4		Exit	I
	·			
Please se	elect your role	from a	bove : 1	

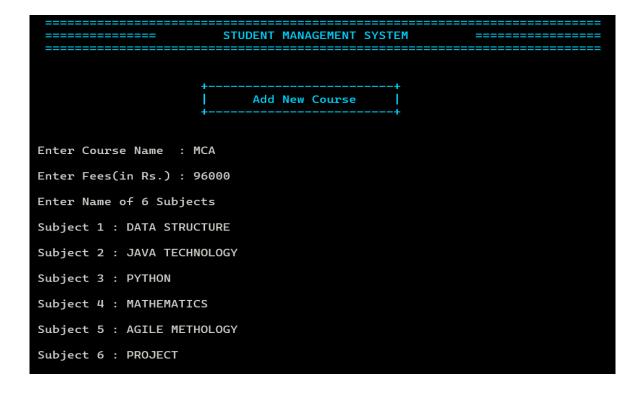
Admin Login



Admin Dashboard

=======================================	====	======================================	
===========	=====	======================================	
+			-+
1		ADMIN DASHBOARD	1
+			-+
	No.	Options 0	
+ I	1	 Add New Course	-+
i		Edit Course Details	i
i		List of Courses	i
j	4	Add New Teacher	i
i	5	Edit Teacher Details	i
j	6	List of Teachers	i
i	7	Delete Teacher Details	İ
1	8 Add New Student		1
1	9	Edit Student Details	1
1	10	Search Student Details	1
1	11	List of Students	1
	12	Delete Student Details	
	13	Fees Payment	
		Fees Pending List	
	15	Update Userid & Password	
ı	16	Exit	1
+			-+
		-1	
Enter your	choic	e : 1	

Add New Course



Course Added

Course ID 1 Course Name MCA Course Fees 96000 Subjects Subject 1 DATA STRUCTURE Subject 2 JAVA TECHNOLOGY Subject 3 PYTHON Subject 4 **MATHEMATICS** Subject 5 AGILE METHOLOGY Subject 6 **PROJECT** Course added successfully !!

Course List

```
Course List
  Course ID
  Course Name
                          MCA
  Course Fees
                          96000
  Subject 1
                          DATA STRUCTURE
  Subject 2
Subject 3
                          JAVA TECHNOLOGY
                          PYTHON
  Subject 4
                          MATHEMATICS
                          AGILE METHOLOGY
  Subject 5
  Subject 6
                          PROJECT
  Course ID
                          2
  Course Name
                          BCA
  Course Fees
                          35000
  Subject 1
                          WEB DEVELOPMENT
  Subject 2
                          C LANGUAGE
  Subject 3
                          VB .NET
  Subject 4
                          STATISTICS
                          DATA STRUCTURE
  Subject 5
  Subject 6
                          PROJECT
List of Courses As on : 22-12-2023 17:10
```

Add New Teacher

Add New Teacher

(1) MCA
(2) BCA

Select Course From Above List : 1

Selected Course : MCA

Teacher's Name : MAYANK JAIN

Email : mayank@gmail.com

Mobile : 9487545454

Salary : 55000

Teacher added successfully !!

Teacher Login ID : mayank@gmail.com

Teacher's List

teacher

Default Password :

Teacher's List Teacher ID 101 MAYANK JAIN Name Department MCA Date of Joining Mobile No. 22-12-2023 9487545454 Email-id mayank@gmail.com Password teacher Salary 55000 Teacher ID PREKSHA PARMAR Name Department MCA Date of Joining Mobile No. 22-12-2023 7845451200 Email-id preksha@gmail.com Password teacher 50000 Salary Teacher ID SHUBHAM JHA Name Department BCA Date of Joining Mobile No. 22-12-2023 7383988791 Email-id shubham@gmail.com Password teacher Salary 45000 List of Teachers As on : 22-12-2023 17:16

Edit Teacher Details

```
Enter Teacher's Id to Update : 104

Sorry ! No Teacher details found for above Teacher ID
```

```
Edit Teacher Details
Enter Teacher's Id to Update : 103
          Teacher ID
                               103
          Name
                               SHUBHAM JHA
          Department
                               BCA
          Date of Joining :
                               22-12-2023
          Mobile No.
                               7383988791
          Email-id
                               shubham@gmail.com
          Salary
                               45000
Enter Teacher's New Name : SHUBHAMKUMAR JHA
Enter New Salary(in Rs.): 47000
Enter New Mobile No. : 7383988791
Enter New Email ID : shubham@gmail.com
Teacher Details Updated Successfully !!
```

Delete Teacher Details

Delete Teacher Details

Enter Teacher's ID to Delete: 104

Teacher ID : 104
Name : TEST

Department : BCA

Date of Joining : 22-12-2023
Mobile No. : 4545456512
Email-id : test@gmail.com
Salary : 12000

Do you want to delete this teacher ? (Y/N): y

Teacher details deleted for Teacher Id 104 .

Add New Student

```
Add New Student
    (1) MCA
    (2) BCA
Select Course From Above List : 1
Selected Course
                           : MCA
                           : KHUSHAL SOLANKI
Student Name
Email
                           : khushal@gmail.com
Mobile
                           : 7894512000
Address
                           : UTRAN SURAT
Date of Birth(dd-mm-yyyy) : 01-01-2003
Student added successfully !!
Student Login ID :
                    khushal@gmail.com
Default Password :
                    student
```

Student List (Course wise)

Student List (1) MCA (2) BCA Select Course From Above List : 1 Student List Enrollment No. 230000001 SHUBHAM JHA Name Date of Birth 07-10-2003 Department Mobile No. 7383988791 Email-id shubham@gmail.com Fees Status Unpaid Address DINDOLI SURAT Enrollment No. : 230000002 KHUSHAL SOLANKI Name Date of Birth 01-01-2003 Department MCA Mobile No. 7894512000 Email-id khushal@gmail.com Fees Status Unpaid UTRAN SURAT Address Enrollment No. : 230000003 RUCHIT SHAH Name Date of Birth 10-12-2004 Department MCA Mobile No. 8745125478 Email-id ruchit@gmail.com Fees Status Unpaid Address VARACHHA SURAT Total Student : 3 List of Students As on : 22-12-2023 17:34

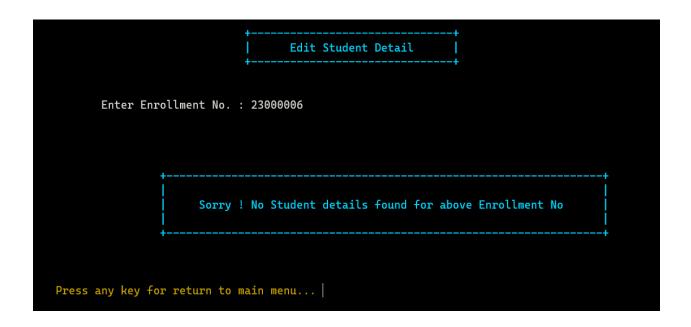
Student List (Course wise)

Student List (1) MCA (2) BCA Select Course From Above List: 2 Student List Enrollment No. 230000004 Name RAHUL SINGH Date of Birth 01-01-2002 Department BCA Mobile No. 4875454845 Email-id rahul@gmail.com Fees Status Unpaid Address GODADARA SURAT Enrollment No. : 230000005 YOGESH PATIL Name Date of Birth 01-10-2005 Department Mobile No. 9874545454 Email-id yogesh@gmail.com Fees Status Unpaid UDHNA SURAT Address Enrollment No. 230000006 Name YASH JAIN Department Date of Birth 01-01-2001 BCA Mobile No. 7845154578 yash@gmail.com Email-id Fees Status Unpaid Address VESU SURAT Total Student : 3

List of Students As on : 22-12-2023 17:38

Edit Student Detail

Edit Student Detail Enter Enrollment No. : 230000001 Enrollment No. 230000001 SHUBHAM JHA Date of Birth 07-10-2003 Department MCA Mobile No. Email-id 7383988791 shubham@gmail.com Fees Status Unpaid Address DINDOLI SURAT Enter Student's Updated Name : SHUBHAM KUMAR : 7383988791 Enter New Mobile No. Enter New Email ID : shubham@gmail.com New Address : DINDOLI SURAT GJ Student Details Updated Successfully !! Press any key for return to main menu...



Search Student By Enrollment No.

```
Search Student Details
             (1) Search By Enrollment No.
             (2) Search By Student Name
       Select Option From Above : 1
      Enter Enrollment No : 230000001
                 Enrollment No.
                                         230000001
                 Name
                                        SHUBHAM KUMAR
                 Date of Birth
                                        07-10-2003
                 Department
                                        MCA
                 Mobile No.
                                        7383988791
                 Email-id
                                         shubham@gmail.com
                 Password
                                         student
                 Fees Status
                                        Unpaid
                                        DINDOLI SURAT GJ
                 Address
Press any key for return to main menu...
```

Search Student By Name

```
Search Student Details
             (1) Search By Enrollment No.
             (2) Search By Student Name
       Select Option From Above : 2
      Enter Student Name : SHUBHAM KUMAR
                 Enrollment No.
                                         230000001
                                         SHUBHAM KUMAR
                 Date of Birth
                                         07-10-2003
                 Department
                                         MCA
                 Mobile No.
                                         7383988791
                 Email-id
                                         shubham@gmail.com
                 Password
                                         student
                 Fees Status
                                         Unpaid
                 Address
                                         DINDOLI SURAT GJ
Press any key for return to main menu...
```

Delete Student Detail

```
Delete Student Details
      Enter Enrollment No. : 230000006
                 Enrollment No.
                                        230000006
                 Name
                                        YASH JAIN
                 Date of Birth
                                        01-01-2001
                 Department
                                        BCA
                 Mobile No.
                                        7845154578
                 Email-id
                                        yash@gmail.com
                 Fees Status
                                        Unpaid
                 Address
                                        VESU SURAT
         Do you want to delete this Student ? (Y/N): y
         Student details deleted with Enrollment No. 230000006 .
Press any key for return to main menu...
```

```
| Delete Student Details |
| Enter Enrollment No. : 230000009

| Sorry ! No Student details found for above Enrollment No. |
| Press any key for return to main menu...
```

Fees Payment

Enter Enrollment No.: 230000001

Enrollment No.: 230000001

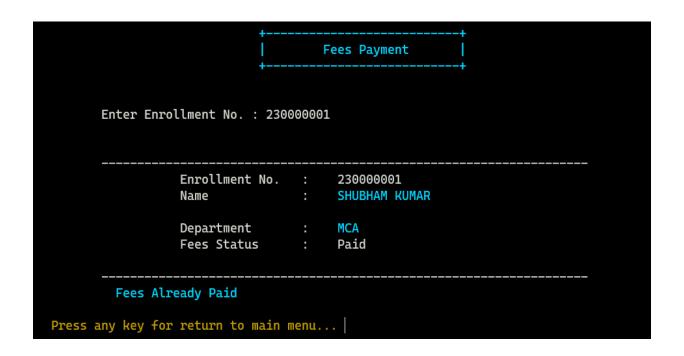
Name : SHUBHAM KUMAR

Department : MCA
Fees Status : Unpaid

Do You Want to Deposite Fees for Above Student ? (Y/N): Y

Fees Deposited Successfully !!

Press any key for return to main menu...



Fees Pending List (Course wise)

```
Fees Pending List

(1) MCA
(2) BCA

Select Course From Above List: 1

Enrollment No Name

230000002 KHUSHAL SOLANKI
230000003 RUCHIT SHAH
230000007 NARENDRA MODI

Total Students: 3

Press any key for return to main menu...
```

```
Fees Pending List

(1) MCA
(2) BCA

Select Course From Above List: 2

Enrollment No Name

230000004 RAHUL SINGH
230000005 YOGESH PATIL

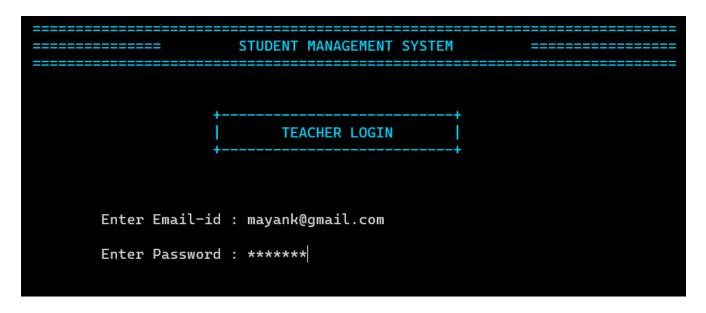
Total Students: 2

Press any key for return to main menu...
```

Update Admin Credentials

============	STUDENT MANAGEMENT SYSTEM	=======================================
	 	
	UPDATE ADMIN CREDENTIALS	
Enter new username: adı	nin	
Enter new password: **:	****	
Admin account updated	successfully! Press any key to c	ontinue

Teacher Login



Teacher Dashboard

=======================================	STUDENT MANAGEMENT	SYSTEM ====================================
Welcome, MAYANK	JAIN	
	TEACHER DASHBOARD	
	No. Options	
	1 View Profile 2 Add Student Mark 3 Change Password 4 Exit	
Please enter your		

Teacher Profile

```
STUDENT MANAGEMENT SYSTEM
                             PROFILE
         MAYANK JAIN
Welcome,
          ΙD
                                101
          Name
                                MAYANK JAIN
          Department
                                MCA
          Date of Joining :
                                22-12-2023
          Mobile No.
                                9487545454
          Email-id
                                mayank@gmail.com
          Salary
                                55000
Press any key for return to main menu...
```

Add Student Marks

```
ADD STUDENT MARKS
Enter Enrollment No : 230000003
                           230000003
   Enrollment No.
                           RUCHIT SHAH
  Name
  Department
                           MCA
                     ----- MARKS -
                                                 N/A
N/A
N/A
N/A
N/A
  DATA STRUCTURE JAVA TECHNOLOGY
  PYTHON
  MATHEMATICS
   AGILE METHOLOGY
  PROJECT
  Do you want to proceed ? (Y/N): y
Enter Marks for below subjects(out of 100)
DATA STRUCTURE : 65
JAVA TECHNOLOGY : 62
PYTHON: 72
MATHEMATICS : 45
AGILE METHOLOGY : 81
PROJECT : 91
Marks updated successfully
Press any key for return to main menu...
```

Update Student Marks

```
ADD STUDENT MARKS
Enter Enrollment No : 230000003
   Enrollment No. :
                          230000003
   Name
                          RUCHIT SHAH
   Department
                          MCA
                     ----- MARKS -
    DATA STRUCTURE
    JAVA TECHNOLOGY
                                              62
    PYTHON
                                               72
    MATHEMATICS
                                              45
    AGILE METHOLOGY
                                               81
    PROJECT
                                               91
   Do you want to proceed ? (Y/N): n
 Student marks not updated....
Press any key for return to main menu...
```

Add Student Marks

➤ Here Teacher can add marks of only that student which belongs to their department.

Change Login Password

```
STUDENT MANAGEMENT SYSTEM

CHANGE PASSWORD

Welcome, MAYANK JAIN

Enter new password: ******

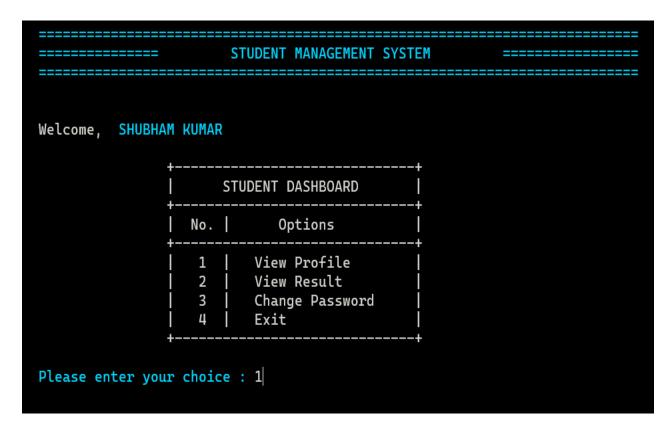
Password Updated Successfully !!

Press any key for return to main menu...
```

Student Login

=========	STUDENT MANAGEMENT SYSTE	======================================
į	STUDENT LOGIN	į
+-		-+
Enter Email-id	: shubham@gmail.com	
Enter Password	: ******	

Student Dashboard



Student Profile

=======	=====	STUDENT	MANAGEMENT SYSTEM	=======================================
=======	==========	======	=======================================	
		PR	+ OFILE	
		+	+	
Welcome,	SHUBHAM KUMAR			
	Enrollment No.		230000001	
	Name		SHUBHAM KUMAR	
	Department		MCA	
	Date of Birth		07-10-2003	
	Mobile No.		7383988791	
	Email-id		shubham@gmail.com	
	Address		DINDOLI SURAT GJ	

Change Login Password

```
The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s
```

View Result

=======================================				
==========	STUDENT	MANAGEMENT	SYSTEM	=======================================

RESULT

ENROLLMENT No.: 230000001 COURSE: MCA

NAME : SHUBHAM KUMAR DOB : 07-10-2003

SUBJECTS	TOTAL MARKS	OBTAINED MARKS
DATA STRUCTURE	100	75
JAVA TECHNOLOGY	100	82
PYTHON	100	71
MATHEMATICS	100	94
AGILE METHOLOGY	100	65
PROJECT	100	92
TOTAL	600	479
PERCENTAGE		79.83 %

Press any key for return to main menu...

View Result

+------| RESULT | +-----

ENROLLMENT No.: 230000002 COURSE: MCA

NAME : KHUSHAL SOLANKI

DOB : 01-01-2003

SUBJECTS TOTAL MARKS OBTAINED MARKS

DATA STRUCTURE 100 N/A

DATA STRUCTURE N/A 100 N/A JAVA TECHNOLOGY 100 **PYTHON** 100 N/A **MATHEMATICS** 100 N/A N/A AGILE METHOLOGY 100 N/A PROJECT 100

TOTAL 600 N/A

PERCENTAGE RESULT NOT DECLARED

Press any key for return to main menu...

View Result

+------| RESULT | +-----

ENROLLMENT No.: 230000004 COURSE: BCA

NAME : RAHUL SINGH DOB : 01-01-2002

TOTAL MARKS SUBJECTS OBTAINED MARKS WEB DEVELOPMENT 100 12 C LANGUAGE 100 21 VB .NET 100 35 STATISTICS 100 25 DATA STRUCTURE 100 38 **PROJECT** 29 100 TOTAL 600 160 26.67 % [FAIL] PERCENTAGE

Press any key for return to main menu...