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ACCREDITED BY NAAC WITH A++ GRADE (CGPA 3.54)

DEPARTMENT OF COMPUTER ENGINEERING



A REPORT ON

DBMS Mini Project
“Student Management System”

T.E. (COMPUTER 1)

SUBMITTED BY

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1) ABSTRACT

- The Student Management System (SMS) presented is GUI-based application built using the Tkinter library in Python. The system allows managing student records, including details such as personal information, marks, attendance, and address. The abstraction of the system lies in its ability to interact with a database to perform CRUD (Create, Read, Update, Delete) operations on student data.
- Key features and Components:
 1. Login Frame: Authenticates users before granting access to the system.
 2. Manage Frame: Provides functionality for searching and displaying specific student records.
 3. Detail Frame: Provides functionality for searching and displaying specific student records.
 4. Database Interactions: Connects to a MySQL database to store and retrieves student information.
 5. Input Validation: Ensures mandatory fields are filled before data submission.
 6. GUI Interface: Utilizes Tkinter for graphical user interface.

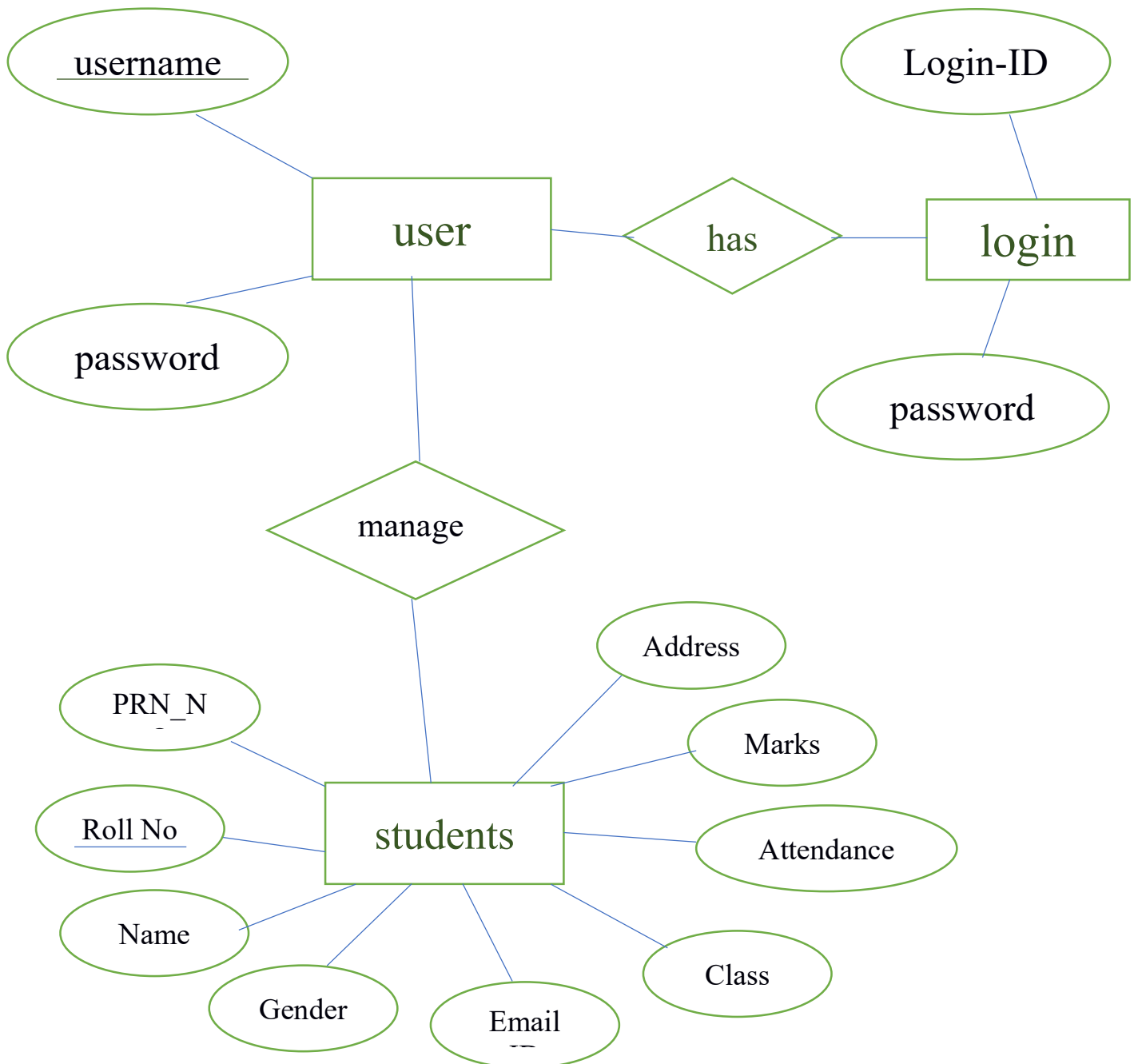
2) INTRODUCTION

- The Student Management System is designed to streamline and organize student data within an educational institution. It simplifies the process of managing student records, allowing administrators or authorized users to add, update, delete, search, and view details of students. The system ensures data integrity and easy accessibility for academic purposes.
- It's intended to be used by administrative staff, teachers, and authorized personnel involved in student-related activities.

The systems aim to:

- Store and organize student information systematically.
- Enable easy retrieval and modification of student records.
- Provide a user-friendly interface for use interaction.
- Support quick access to pertinent student data for academic and administrative purposes.

3) ENTITY RELATION DIAGRAM



4) SOFTWARE REQUIREMENTS

PyCharm Community Edition 2021.3.1

Python 3.10.1

MySQL Server version: 8.0.34

pymysql version 1.1.0

VS Code 1.83.1

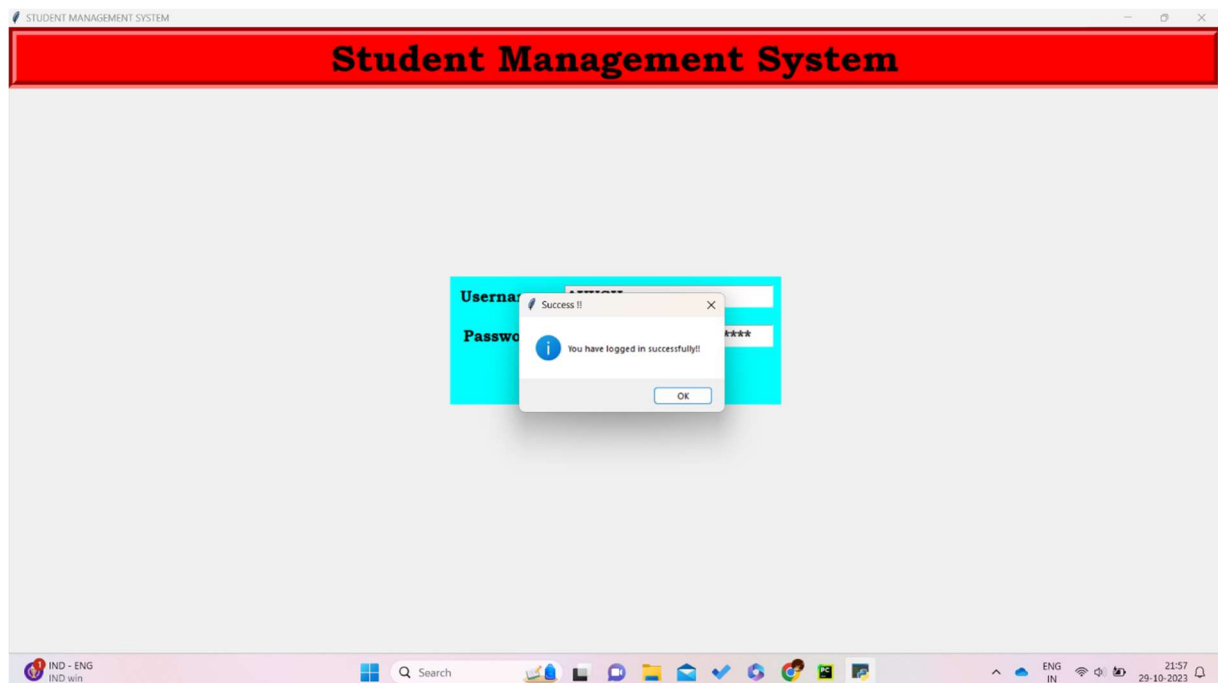
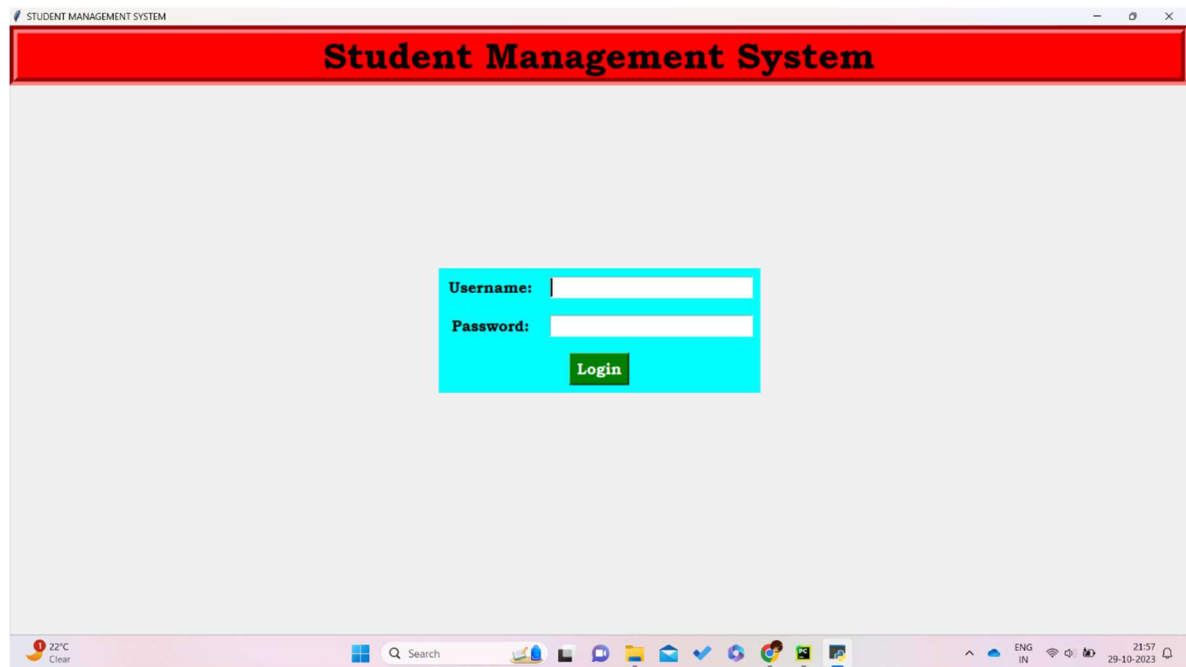
Operating System: Windows or Linux equivalent

6) DATABASE SCHEMA

```
mysql> desc stud_data;
```

Field	Type	Null	Key	Default	Extra
PRN_No	varchar(10)	YES	PRI	NULL	
Roll_No	int	NO		NULL	
Name	varchar(30)	YES		NULL	
Gender	varchar(10)	YES		NULL	
Email_ID	varchar(80)	YES		NULL	
Class	varchar(8)	YES		NULL	
Attendance	int	YES		NULL	
DBMS_Marks	int	YES		NULL	
CNS_Marks	int	YES		NULL	
SPOS_Marks	int	YES		NULL	
ToC_Marks	int	YES		NULL	
IoT_Marks	int	YES		NULL	
Address	varchar(80)	YES		NULL	

7) OUTPUT



STUDENT MANAGEMENT SYSTEM

Student Management System

MANAGE STUDENT DATA

PRN_No	<input type="text"/>	Roll_No	<input type="text"/>
Name	<input type="text"/>	Gender	<input type="text"/>
Email ID	<input type="text"/>	Class	<input type="text"/>
Attendance	<input type="text"/>	DBMS Marks	<input type="text"/>
CNS Marks	<input type="text"/>	SPOS Marks	<input type="text"/>
ToC Marks	<input type="text"/>	IOT Marks	<input type="text"/>
Address	<input type="text"/>		

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STUDENT MANAGEMENT SYSTEM

Student Management System

MANAGE STUDENT DATA

PRN_No	<input type="text" value="F21111036"/>	Roll_No	<input type="text" value="35"/>
Name	<input type="text" value="Ayush_Acharya"/>	Gender	<input type="text" value="Male"/>
Email ID	<input type="text" value="ayush@gmail.com"/>	Class	<input type="text" value="TE_1_Q"/>
Attendance	<input type="text" value="100"/>	DBMS Marks	<input type="text" value="30"/>
CNS Marks	<input type="text" value="26"/>	SPOS Marks	<input type="text" value="30"/>
ToC Marks	<input type="text" value="20"/>	IOT Marks	<input type="text" value="24"/>
Address	<input type="text" value="PCMC"/>		

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STUDENT MANAGEMENT SYSTEM

Student Management System

MANAGE STUDENT DATA

PRN_No

Roll_No

Name

Gender

Email ID

Class

Attendance

DBMS Marks

CNS Marks

SPOS Marks

ToC Marks

IOT Marks

Address

Success !!

Records added Successfully!!

OK

ADD

UPDATE

DELETE

CANCEL

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STUDENT MANAGEMENT SYSTEM

Student Management System

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PRN_No	Roll_No	Name	Gender	Email ID	Class	Attendance	
F21111001	1	Sushain_Pandita	Male	sushain@gmail.com	TE_1-P	12	0
F21111006	6	Akhilesh_Mali	Male	akhilesh@gmail.com	TE_1-P	84	5
F21111033	33	Saurabh_Butale	Male	saurabh@gmail.com	TE_1-Q	55	20
F21111036	35	Ayush_Acharya	Male	ayush@gmail.com	TE_1-Q	100	30
F21111046	43	Omkar_Latapate	Male	omkar1@gmail.com	TE_1-Q	74	11

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8) CONCLUSION

The Student Management System is a comprehensive tool for managing student information, providing essential features for administrative tasks. It simplifies the process of maintaining student records, facilitates easier access to information, and helps in efficient data management. However, there might be areas for improvement, such as enhancing the user interface, adding more robust authentication mechanisms, or expanding functionalities for better user experience.