

## 1. INTRODUCTION

### 1.1 OVERVIEW:

The College Management System Project in Java is a comprehensive Java project that facilitates the management of colleges and universities. It includes features such as adding new students and teachers, tracking their enrollment and leaving details, managing student marks, fee structures, and utilities such as notepad, calculator, and web browser. The system also has an update feature to modify the details of students and teachers.

This application provides a user-friendly interface that makes it easy for college staff to manage all college operations in one place, saving time and effort. It can help streamline administrative tasks and increase efficiency in managing college operations.

Here are some of the key features of college management system:

- ✓ Student Management
- ✓ Teacher Management
- ✓ Fees Management
- ✓ Exam Management

### 1.2 BENEFITS OF COLLEGE MANAGEMENT SYSTEM:

This project provides a user-friendly interface that makes it easy for college staff to manage all college operations in one place, saving time and effort. It can help streamline administrative tasks and increase efficiency in managing college operations.

It provides a centralized platform for managing all college operations such as admissions, student and teacher details, attendance, exam marks, fees, and utility tools like a notepad, calculator, and web browser.

This system helps in the effective management of data. It allows you to store, update, and retrieve data easily and quickly.

As the system has a login feature, it ensures the security of data and prevents unauthorized access.

### **1.2 SCOPE OF COLLEGE MANAGEMENT SYSTEM:**

The scope of a college management system is to provide a platform for managing various college operations in a more organized and efficient manner. It allows easy access to student and teacher information, including personal and academic details. Additionally, it helps in managing fee structures, generating reports, and providing a user-friendly interface for various administrative tasks. Overall, it aims to simplify the management of college operations and improve overall efficiency.

## 2. REQUIREMENT SPECIFICATIONS

### 2.1 HARDWARE REQUIREMENTS:

Processor Band:	Intel
Processor Type:	Core i3 or above
Clock Speed:	1.7 GHz or more
RAM Size:	2GB
Memory Technology:	DDR3
Monitor:	LCD Monitor
Keyboard:	Standard Keyboard
Mouse:	Compatible mouse or Touchpad
Hard Drive Size:	1 TB

### 2.1 SOFTWARE REQUIREMENTS:

Operating System:	Window 10
IDE:	VS Code
Language:	Core Java (Swing), SQL
Database:	PostgreSQL
Database Connectivity:	JDBC Driver

### 3. REQUIREMENT ANALYSIS

#### 3.1 E-R DIAGRAM:

An Entity-Relationship (ER) diagram is a visual representation of the relationships between entities in a database. The ER diagram depicts the relationships between various entities, their attributes, and the relationships between these entities.

Figure 3.1: ER Diagram for College Management System

