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# **STUDENT DATABASE MANAGEMENT SYSTEM**

A Report submitted in partial fulfillment of the  
requirement for the degree of



B. Tech.

In

Computer Science and Engineering

Under the Supervision of

MS. Geetanjali

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**Department of Computer Science & Engineering**

Session: - 2021-2022

# **Raj Kumar Goel Institute of Technology, Ghaziabad**

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## **Department of Computer Science & Engineering**

### **1.1.1 VISION OF THE INSTITUTE**

To continually develop excellent professionals capable of providing sustainable solutions to challenging problems in their fields and prove responsible global citizens.

### **1.1.2 MISSION OF THE INSTITUTE**

We wish to serve the nation by becoming a reputed deemed university for providing value based professional education.

### **1.1.3 VISION OF THE DEPARTMENT**

To be recognized globally for delivering high quality education in the ever-changing field of computer science & engineering, both of value & relevance to the communities we serve.

### **1.1.4 MISSION OF THE DEPARTMENT**

1. To provide quality education in both the theoretical and applied foundations of Computer Science and train students to effectively apply this education to solve real world problems.
2. To amplify their potential for lifelong high-quality careers and give them a competitive advantage in the challenging global work environment.

### **1.1.5 PROGRAM EDUCATIONAL OUTCOMES (PEOs)**

**PEO 1: Learning:** Our graduates to be competent with sound knowledge in the field of Computer Science & Engineering.

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**PEO 2: Employable:** To develop the ability among students to synthesize data and technical concepts for application to software product design for successful careers that meet the needs of Indian and multinational companies.

**PEO 3: Innovative:** To develop research oriented analytical ability among students to prepare them for making technical contributions to the society.

**PEO 4: Entrepreneur / Contribution:** To develop excellent leadership quality among students which they can use at different levels according to their experience and contribute for progress and development in the society.

### PROGRAM OUTCOMES (POs)

#### 1.1.6 Engineering Graduates will be able to:

**PO1: Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

**PO2: Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

**PO3: Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

**PO4: Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

**PO5: Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

**PO6: The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

**PO7: Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

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**PO8: Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

**PO9: Individual and teamwork:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

**PO10: Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

**PO11: Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

**PO12: Life-long learning:** Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

### 1.1.7 PROGRAM SPECIFIC OUTCOMES (PSOs)

**PSO1:** The ability to use standard practices and suitable programming environments to develop software solutions.

**PSO2:** The ability to employ latest computer languages and platforms in creating innovative career opportunities.

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### COURSE OUTCOMES (COs)

Course Outcomes (CO)		Bloom's Knowledge Level (KL)
CO 1	Students acquire a 'real' working environment and get acquainted with the organization structure, business operations and administrative functions.	K6
CO 2	Students develop hands-on experience in the student's related field so that they can relate and reinforce what has been taught at the institute.	K1, K2, K3
CO 3	Students acquire knowledge of cooperation and to develop synergetic collaboration between industry and the institute in promoting a knowledgeable society.	K1, K6
CO 4	Students get a stage for the future recruitment by the potential employers and get awareness of the social, cultural, global and environmental responsibility as an engineer.	K5, K6
CO 5	Students acquire presentation and demonstration skills to effectively communicate the progress of the work to peers and superiors using audio/video, software tools.	K3

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### 1.1.8 CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C209.1	3	2	2	2	3	3			3	2	2	3
C209.2	3	3	2	3	3	3	3	3	2	2	2	3
C209.3	3	3	2	2	3	3		3	2	2	2	3
C209.4	3	3	3	2		3	3		3	2		3
C209.5	3	2	2		3			3	3		2	
C209	3	3	2	2	3	3	3	3	3	2	2	3

### CO-PSO MAPPING

CO	PSO1	PSO2
C209.1	3	3
C209.2	3	3
C209.3	3	3
C209.4	3	3
C209.5	3	3
C209	3	3

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## **ABSTRACT**

Student Database Management System (SDMS) is software which is helpful for students as well as the school authorities. In the current system all the activities are done manually. It is very time consuming and costly. Our Student Management System deals with the various activities related to the students. In the Software we can register as a user and user has of two types, student and administrator. Administrator has the power to add new user and can edit and delete a user. A student can register as user and can add edit and delete his profile. The administrator can add edit and delete marks for the student. All the users can see the marks.

The creation and management of accurate, up-to-date information regarding a students' academic career is critically important in the university as well as colleges. Student information system deals with all kind of student details, academic related reports, college details, course details, curriculum, batch details, placement details and other resource related details too. It tracks all the details of a student from the day one to the end of the course which can be used for all reporting purpose, tracking of attendance, progress in the course, completed semesters, years, coming semester year curriculum details, exam details, project or any other assignment details, final exam result and all these will be available through a secure, online interface embedded in the college's website.

**Keywords:** Student Information System, Database, C, SQL...



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## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 Problem Definition**

Information Security is the most common word uttered by any man any device or any peripheral since past two centuries. Protection from malicious sources has become a part of the invention or the discovery cycle. The problem occurred before having computerized system includes: **File lost When computerized system is not implemented file is always lost because of human environment.** due to some human error there may be a loss of records.

#### **1.2 Introduction about the project**

The Student Management System In PHP is a simple system develop PHP MySQL database, Using C & C++ , CSS, Bootstrap , Ajax, J Query, and Modal. This Simple Student Management System In PHP will help a certain secondary school manage the record grades record of their students.

A Student Management System In PHP and MySQL stores the grades per subject and grade level of each student per periodic grading. The student final grade for each subject will be automatically calculated and labeled the status if either the student passed or failed the subject. The system was minimally based on the process of storing and managing the student records in one of the secondary public schools.

A Student Management System Java Code allows you to keep the student records and manage them when needed. This is a simple java project with good and interactive looking GUI. This Project Use MySQL Database for managing all the data that store in the database.

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## 1.3 Project overview

It consists of basic features which encompass Add students, view college students, search college students and get rid of the student. In this mini undertaking, there may be no such login device. This manner he/she can use all the available functions without problems with none restriction.

### 1.3.1 C & C++

Unlike other mini projects published in Code with C, this **mini project in C Student Record System** has a unique style of coding and is presented in a colorful manner. It uses files as database to perform file handling operations such as add, search, modify and delete records to manage students' records. In this project, you can also generate mark-sheet for students.

Here, a console window is virtually divided into 2 parts – one is static and it does not change, while the other is dynamic and it changes from time to time. The text are coded using various color-related functions to make them static.

The source code for this mini project is error-free, but not complete. There are many places for improvements and enhancements within the project.

### 1.3.2 Platform

This C mini project on student record management system is compiled in Code::Blocks IDE using GCC compiler.

So, compiling the source codes in other platforms or compiler such as Turbo C will produce errors. The C code is around 400 lines, so I haven't displayed it here.

## **CHAPTER 2**

### **FEASIBILITY STUDY**

The feasibility analysis. The purpose of the feasibility study is to determine whether the problem can be solved with minimum cost as soon as possible. Economic feasibility Nowadays, the price of the computer has been very low, while the performance has made considerable progress. And the development of this system brings a qualitative leap for working efficiency of the school, which mainly includes the following aspects: First, the operation of this system can replace much multifarious artificial labor; Second, the operation of this system can save a lot of resources; Third, the operation of this system can greatly improve the working efficiency of the school; Fourth, this system can make sensitive documents safer and so on. Therefore, this system is economically feasible.

Technical feasibility The development of this system using Microsoft SQL Server 2005 as the database of this system, it is a new kind of database which supports more users and is suitable for large and medium-sized data amount needs. Using Visual Studio 2005 as the development environment of the system provides the perfect instruction control statements, the support of the classes and objects and rich data types, this ensures the safeguard for high performance of the system and meets the requirement of customers, as well as the modularization requirements of the code, and higher modularization is beneficial to extension and modification of the new system in the future. To sum up, the design and development on the technology of this system and the condition of the hardware are satisfied, therefore, it is technically feasible. Operation feasibility This system is small student information and performance management system, which needs small amount of resources. School computer can meet the conditions both in hardware and software; therefore, this system is feasible in operation.

With the end of a careful feasibility study a number of possible alternatives were considered and after many rounds of long drawn meetings with the Board of Directors, end-users (clerks and office personnel), and employees of the school the request to develop a new software for the management of school activities was approved.

## **CHAPTER 3**

### **PROJECT SPECIFICATIONS**

#### **3.1 Hardware Requirements:**

Processor	: Intel Core i3(minimum)
Hard Disk	: 40GB
RAM	: 256MB(minimum)

#### **3.2 Software Requirements:**

Operating System	: Windows or Linux or Mac or Android
Technology	: c & c++

#### **3.3 Basic Requirements**

**Modules needed to download before are**

1. Pyqt5
2. Crypto
3. PIL
4. Base64

# **Raj Kumar Goel Institute of Technology, Ghaziabad**

Mini Project (KCS-354)



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