

Documentation on the "Student Management System" Project

In this document, you'll find a comprehensive guide to the "Student Management System" project, which utilizes OOPs concepts, functions, arrays, and loops. The system is designed to solve problems related to student data management, including data insertion, display, updates, and deletion.



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Introduction

The Student Management System is a C++ program designed to help manage student data more efficiently. The program uses functions, arrays, loops, and object-oriented programming concepts to make data management more organized and automated.

Overview of Project

The project is designed as a console-based program that allows a user to input and manipulate student data. Through the use of classes and objects, the program is designed to be modular and expandable, should the need for additional functionality arise.

Basic Concepts Used

OOPs Concepts

The Student Management System is built using object-oriented programming concepts to make the program more efficient and flexible.

Functions, Arrays, and Loops

The program uses these basic programming concepts to handle data input, processing, and output.

Problem the Project Solved

Managing student data can be a tedious task for administrators, especially when done manually. The Student Management System project simplifies data management, making it faster and more efficient, solving problems related to unnecessary manual labor and errors in data input and management.

Objectives

1 Streamlining Student Data Management

The primary goal is to create a program that simplifies student data management, allowing administrators to focus on other tasks.

2 Minimizing Errors In Data Entry

The program is designed to minimize data entry errors and data loss by using data validation and secure data storage techniques.

Key Features

Insert Data

With the 'Insert Data' function, administrators can quickly input data into the system using an easy-to-navigate console menu.

Show Data

The 'Show Data' function allows administrators to view student data entered into the program.

Update Data

The 'Update Data' function lets administrators modify and make changes to student data stored.

Delete Data

The 'Delete Data' function helps administrators delete and remove unwanted student data from the database.

Implementation Details

Language Used:	C++
Libraries Used:	iomanip, iostream, conio, and string
Platform Supported:	Windows
Software Used:	DEV C++

Conclusion - Why Program is Helpful

The Student Management System project provides a robust solution to managing student data, allowing administrators to easily insert, display, update and delete student data. The use of OOPs programming concepts, along with functions, arrays and loops, helps make the program more flexible, efficient and customizable.