STUDENT PERFORMANCE TRACKER

A C Programming Project Report

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1. Overview

The Student Performance Tracker project is built in C to manage and analyze academic records. It demonstrates the power of structures, arrays, and modular programming in organizing large amounts of data. The system includes features such as storing details, computing marks, percentage calculation, and grade evaluation. It also supports displaying and searching student records. The project is helpful for beginners and promotes understanding of structured coding. It lays a strong foundation for students aspiring to design more advanced applications.

2. Structure Description

Field	Description
Roll Number	Unique identification number for each student.
Name	Full name of the student.
Marks[5]	Marks obtained in 5 subjects.
Total	Sum of all five subject marks.
Percentage	Calculated using total marks.
Grade	Assigned based on percentage.

3. Program Flowchart

Start → Initialize Records → Display Menu → User Choice → [1] Add Student → Enter → Calculate Total & Grade → Save → Menu [2] Display Students → Show Records → Menu [3] Search Student → Enter Roll → Show Result → Menu [4] Exit → End Program

4. Code Explanation

• stdio.h and string.h are used for basic input-output and string functions. • Structure stores student details. • calculate() computes totals and grade. • addStudent() inputs and stores data. • displayAll() prints all students. • searchStudent() finds by roll number. • main() runs the menu-driven program.

5. Conclusion

This project shows how C programming can be used to create real-world applications. It strengthens concepts of structures, arrays, modular development, and logical reasoning. The menu-driven interface makes the program easy to use. It also teaches how to handle and process academic records in a structured format. Overall, this project provides a great start for students entering the world of software development.