

Student Grade Management System

User Guide

Welcome to the Student Grade Management System!

This guide will help you get started with our program, showing you how to use all the features to manage student information and grades effectively.

TEAM 21

Prerequisites

To run the Student Grade Management System, you'll need:

- A computer with a terminal or command-line window
- A C compiler (such as GCC) installed on your system
- Basic understanding of terminal/command-line operations

Compiling the Program

Before you can use the Student Grade Management System, you need to compile the code using the provided Makefile:

1. Open your terminal and navigate to the folder where the program files are located

Run the following command to compile the program: `make`

2. If the compilation is successful, you won't see any error messages

Running the Program

To start the Student Grade Management System:

In the terminal, type: `make run`

1. Or you can directly run the executable created during compilation
2. The main menu will appear, showing all the available options

Features and Controls

The Student Grade Management System offers several features to help you manage student data:

Main Menu Options

Display All Students - View a list of all students with their IDs, names, grades, and GPAs

StudentID	Name	Grade	CGPA
1112	Dev Patel	A+	4.30
1113	Utkarsh Patel	A	4.00
1111	Utsav Upadhyay	A	4.00
1115	Harsh Shah	B+	3.30
1114	Aadit Jadav	B-	2.70

Add Student - Enter a new student's information into the system

Add Grade - Record a course grade for an existing student

View Student Profile - See detailed grade information for a specific student

Course	Marks	Grade	CGPA
CS1083	78.00	B+	3.30
cs1073	98.00	A+	4.30

Search Student By Name - Find students by searching for their name (partial name allowed)

Enter name to search: Ut			
StudentID	Name	Grade	CGPA
1113	Utkarsh Patel	A	4.00
1111	Utsav Upadhyay	A	4.00

Sort and Display Students - Sort the student list by ID, name, or GPA

Print Student Bar Chart - Generate a visual representation of a student's grades



Remove Student - Delete a student from the system

Exit - Save all data and close the program

Data Storage

- All student information and grades are automatically saved to CSV files
- Data is loaded each time you start the program, so your information persists between sessions

Tips for Using the System

- Student IDs must be between 1000 and 10000
- Names should only contain letters and spaces
- Course names must be between 1 and 6 characters long
- Grades must be between 0 and 100
- When adding grades, make sure the student already exists in the system
- The bar chart feature uses colors to represent different grade levels

Known Limitations

- The program only works in terminal/command-line environments
- The interface is text-based without graphical elements

We hope you enjoy using the Student Grade Management System!

If you have any questions or feedback, please reach out to your system administrator.