Student Grade Management System

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Introduction

- Manages student grades efficiently.
- Stores and processes student data.
- Provides an interactive console interface.
- Ensures structured record-keeping.
- Helps in academic performance tracking.
- Reduces manual effort in sorting and ranking.

Student data management

- Stores student name, roll number, marks.
- Allows updating student records.
- Enables quick retrieval of data.
- Ensures efficient data organization.
- Uses structured data storage.
- Prevents data duplication.

Sorting and ranking

- Shorts students alphabetically by name.
- Ranks students based on GPA.
- Use bubble sort algorithm.
- Ensures a fair ranking system.
- Helps identify top-performing students.

GPA calculation

- Uses six subjects for GPA computation.
- Normalizes GPA for uniform evaluation.
- Ensures fairness in grading.
- Automatically updates GPA after entry.
- Helps in performance assessment.

File handling

- Saves student data to file.
- Use text file for data storage.
- Updates the file after each operation.
- Enables easy data backup.
- Reads and writes formatted student data.
- Ensures data persistence.

User interaction

- Menu driven console interface.
- Requires user inputs for operations.
- Simple and easy to use design.
- Supports continuous user interaction.
- Ensures a smooth user experience.
- Provides feedback for invalid inputs.

Key functions

- Add display and rank students.
- Sort and manage student records.
- Update and save student data.
- Automate data organization.
- Provide real-time student organization.
- Prevent duplicate student entries.

Conclusion

- Simplifies student grade management.
- Ensures organized and efficient tracking.
- Reduces manual workload.
- Enhances data accessibility.
- Facilitates structured academic evaluation.
- Supports easy data retrieval and updates.

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Thankyou

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