



Java_Assignment-01

Student Management System using ArrayList

Objective:

Build a **Student Management System** using `ArrayList` in Java, where students can be added, removed, searched, and displayed.

♦ Instructions:

- Create a **Student** class with properties like `id`, `name`, `age`, and `grade`.
- Use an **ArrayList** to store and manage student records.
- Implement menu-based options to perform CRUD operations.

Assignment Instructions

1. Create the `Student` Class

- Define `id`, `name`, `age`, and `grade`.
- Implement a constructor and a method to display student details.

2. Create the `StudentManagementSystem` Class

- Use an `ArrayList<Student>` to store student records.
- Provide options to **Add, Remove, Search, and Display Students**.
- Use a `Scanner` for user input.

Note

✅ **Basic Task:** Implement the given functionality as described.

✅ **Bonus Task:**

- Implement sorting of students by **name** or **ID**.
- Prevent duplicate student IDs from being added.
- Add an option to **update** student details.

📢 **Submission Instructions:**

- Write clean, well-commented code.
- Submit the code in the GitHub Repo.