**Project: Student Management System**

**Overview:**

The **Student Management System** is a desktop application where administrators can manage student records. It will allow them to:

1. **Add a new student**.
2. **View existing students**.
3. **Update student details**.
4. **Delete a student record**.
5. **Search for students** based on specific criteria (like name, ID, or grade).

**Project Features:**

1. **JavaFX** will be used for the user interface.
2. **MySQL** will store student data in a relational database.
3. **Java** will handle backend operations such as CRUD functionality and database interactions.

**Functional Requirements:**

1. **Add Student**:
   * The user can enter the student's name, age, grade, and contact information and add it to the database.
2. **View Students**:
   * The user can see a list of all students stored in the system. The data will be fetched from the MySQL database and displayed in a table.
3. **Update Student Information**:
   * The user can select a student from the list and update their details (e.g., change their grade or contact information).
4. **Delete Student**:
   * The user can remove a student record from the system permanently.
5. **Search Student**:
   * The user can search for students by their name or other criteria like grade level.

**Advanced Features (Optional):**

1. **Login Authentication**: Add user authentication for administrators.
2. **Pagination**: If there are many students, implement pagination to display results in chunks.
3. **Report Generation**: Add a feature to export student data to a PDF or Excel report.