Synopsis: Student Management System (Core Java)

1. Title:
Student Management System using Core Java

2. Introduction:
The Student Management System is a simple Java-based application designed to manage and monitor student information efficiently. It focuses on automating routine academic processes such as maintaining student records and tracking attendance. The project is developed using **Core Java concepts** like classes, objects, file handling, exception handling, and collections, without relying on external frameworks or databases.

3. Objective:
The main objective of this project is to create an efficient system that simplifies student data and attendance management. It minimizes manual work, improves accuracy, and ensures data security through structured programming.

4. Scope:
The system is suitable for small educational institutions, coaching centers, or training programs. It provides basic functionalities to store, update, and retrieve student details and their attendance records.

5. Modules:

- **Student Module:**
    - Add, update, delete, and view student details such as name, roll number, and course.
    - Store data using file handling or in-memory structures (like ArrayList).
- **Attendance Module:**
    - Mark daily attendance of students.
    - Generate simple attendance reports.
    - Provide attendance percentage per student.

6. Tools & Technologies Used:

- Programming Language: Core Java
- Concepts: collection

7. Expected Outcome:
The system will allow the admin or teacher to manage students' data and attendance efficiently. It will demonstrate clear use of core Java principles in a real-world scenario.

8. Conclusion:
This project showcases how Core Java can be effectively used to develop small-scale management systems. It enhances understanding of Java fundamentals while solving practical problems in educational management.