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import java.util.ArrayList;
import java.util.Scanner;

class Student {
    private String name;
    private String rollNumber;
    private String grade;

    public Student(String name, String rollNumber, String grade) {
        this.name = name;
        this.rollNumber = rollNumber;
        this.grade = grade;
    }

    public String getName() {
        return name;
    }

    public String getRollNumber() {
        return rollNumber;
    }

    public String getGrade() {
        return grade;
    }
}

class Teacher {
    private String name;
    private String subject;

    public Teacher(String name, String subject) {
        this.name = name;
        this.subject = subject;
    }

    public String getName() {
        return name;
    }

    public String getSubject() {
        return subject;
    }
}
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    }
}

class SchoolManagementSystem {
    private ArrayList<Student> students;
    private ArrayList<Teacher> teachers;

    public SchoolManagementSystem() {
        students = new ArrayList<>();
        teachers = new ArrayList<>();
    }

    public void addStudent(Student student) {
        students.add(student);
        System.out.println("Student added successfully.");
    }

    public void addTeacher(Teacher teacher) {
        teachers.add(teacher);
        System.out.println("Teacher added successfully.");
    }

    public void displayStudents() {
        System.out.println("\nList of Students:");
        for (Student student : students) {
            System.out.println("Name: " + student.getName() +
                               ", Roll Number: " + student.getRollNumber() +
                               ", Grade: " + student.getGrade());
        }
    }

    public void displayTeachers() {
        System.out.println("\nList of Teachers:");
        for (Teacher teacher : teachers) {
            System.out.println("Name: " + teacher.getName() +
                               ", Subject: " + teacher.getSubject());
        }
    }
}

public class Main {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
    }
}

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SchoolManagementSystem sms = new SchoolManagementSystem();

while (true) {
    System.out.println("\nSchool Management System Menu:");
    System.out.println("1. Add Student");
    System.out.println("2. Add Teacher");
    System.out.println("3. Display All Students");
    System.out.println("4. Display All Teachers");
    System.out.println("5. Exit");

    System.out.print("Enter your choice: ");
    int choice = scanner.nextInt();
    scanner.nextLine(); // Consume newline

    switch (choice) {
        case 1:
            System.out.print("Enter student name: ");
            String studentName = scanner.nextLine();
            System.out.print("Enter student roll number: ");
            String rollNumber = scanner.nextLine();
            System.out.print("Enter student grade: ");
            String grade = scanner.nextLine();
            Student student = new Student(studentName, rollNumber,
grade);

            sms.addStudent(student);
            break;

        case 2:
            System.out.print("Enter teacher name: ");
            String teacherName = scanner.nextLine();
            System.out.print("Enter teacher subject: ");
            String subject = scanner.nextLine();
            Teacher teacher = new Teacher(teacherName, subject);
            sms.addTeacher(teacher);
            break;

        case 3:
            sms.displayStudents();
            break;

        case 4:
            sms.displayTeachers();
            break;
    }
}

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        case 5:
            System.out.println("Exiting the program. Goodbye!");
            scanner.close();
            return;

        default:
            System.out.println("Invalid choice. Please enter a valid
option.");
    }
}
}
```