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

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

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

    public String getName() {
        return name;
    }

    public int getRollNumber() {
        return rollNumber;
    }

    public String getGrade() {
        return grade;
    }

    @Override
    public String toString() {
        return "Roll Number: " + rollNumber + ", Name: " + name + ", Grade: " +
grade;
    }
}

class StudentManagementSystem {
    private ArrayList<Student> students;

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

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

    public void removeStudent(int rollNumber) {
        for (Student student : students) {
```

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            if (student.getRollNumber() == rollNumber) {
                students.remove(student);
                System.out.println("Student removed successfully.");
                return;
            }
        }
        System.out.println("Student not found with Roll Number: " + rollNumber);
    }

    public void searchStudent(int rollNumber) {
        for (Student student : students) {
            if (student.getRollNumber() == rollNumber) {
                System.out.println(student);
                return;
            }
        }
        System.out.println("Student not found with Roll Number: " + rollNumber);
    }

    public void displayAllStudents() {
        for (Student student : students) {
            System.out.println(student);
        }
    }
}

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

        int choice;
        do {
            System.out.println("1. Add Student");
            System.out.println("2. Remove Student");
            System.out.println("3. Search Student");
            System.out.println("4. Display All Students");
            System.out.println("5. Exit");
            System.out.print("Enter your choice (1-5): ");
            choice = scanner.nextInt();
            scanner.nextLine();  // Consume the newline character

            switch (choice) {
                case 1:
                    System.out.print("Enter student name: ");
                    String name = scanner.nextLine();
                    System.out.print("Enter roll number: ");
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                int rollNumber = scanner.nextInt();
                scanner.nextLine();  // Consume the newline character
                System.out.print("Enter grade: ");
                String grade = scanner.nextLine();

                Student newStudent = new Student(name, rollNumber, grade);
                sms.addStudent(newStudent);
                break;

            case 2:
                System.out.print("Enter roll number to remove: ");
                int rollToRemove = scanner.nextInt();
                sms.removeStudent(rollToRemove);
                break;

            case 3:
                System.out.print("Enter roll number to search: ");
                int rollToSearch = scanner.nextInt();
                sms.searchStudent(rollToSearch);
                break;

            case 4:
                System.out.println("All Students:");
                sms.displayAllStudents();
                break;

            case 5:
                System.out.println("Exiting. Thank you!");
                break;

            default:
                System.out.println("Invalid choice. Please enter a number between
1 and 5.");
        }

    } while (choice != 5);

    scanner.close();
  }
}
```