**Student.class**

**public** **class** Student {

**private** **int** rollNo;

**private** String name;

**private** String course;

**public** Student(**int** rollNo, String name, String course) {

**this**.rollNo = rollNo;

**this**.name = name;

**this**.course = course;

}

**public** **int** getRollNo() { **return** rollNo; }

**public** String getName() { **return** name; }

**public** String getCourse() { **return** course; }

**public** **void** setName(String name) { **this**.name = name; }

**public** **void** setCourse(String course) { **this**.course = course; }

@Override

**public** String toString() {

**return** "Roll No: " + rollNo + ", Name: " + name + ", Course: " + course;

}

}

StudentManagementApp.class

**import** java.util.\*;

**public** **class** StudentManagementApp {

**private** **static** List<Student> *students* = **new** ArrayList<>();

**private** **static** Scanner *scanner* = **new** Scanner(System.***in***);

**public** **static** **void** main(String[] args) {

**while** (**true**) {

System.***out***.println("\n--- Student Management ---");

System.***out***.println("1. Add Student");

System.***out***.println("2. Display All Students");

System.***out***.println("3. Search Student by Roll No");

System.***out***.println("4. Delete Student");

System.***out***.println("5. Update Student");

System.***out***.println("6. Exit");

System.***out***.print("Enter choice: ");

**int** choice = *scanner*.nextInt();

*scanner*.nextLine(); // Consume newline

**switch** (choice) {

**case** 1 -> *addStudent*();

**case** 2 -> *displayAll*();

**case** 3 -> *searchStudent*();

**case** 4 -> *deleteStudent*();

**case** 5 -> *updateStudent*();

**case** 6 -> System.*exit*(0);

**default** -> System.***out***.println("Invalid choice!");

}

}

}

**private** **static** **void** addStudent() {

System.***out***.print("Enter Roll No: ");

**int** roll = *scanner*.nextInt();

*scanner*.nextLine();

System.***out***.print("Enter Name: ");

String name = *scanner*.nextLine();

System.***out***.print("Enter Course: ");

String course = *scanner*.nextLine();

*students*.add(**new** Student(roll, name, course));

System.***out***.println("Student added!");

}

**private** **static** **void** displayAll() {

**if** (*students*.isEmpty()) {

System.***out***.println("No students to display.");

} **else** {

**for** (Student s : *students*) {

System.***out***.println(s);

}

}

}

**private** **static** **void** searchStudent() {

System.***out***.print("Enter Roll No to search: ");

**int** roll = *scanner*.nextInt();

**for** (Student s : *students*) {

**if** (s.getRollNo() == roll) {

System.***out***.println(s);

**return**;

}

}

System.***out***.println("Student not found.");

}

**private** **static** **void** deleteStudent() {

System.***out***.print("Enter Roll No to delete: ");

**int** roll = *scanner*.nextInt();

Iterator<Student> it = *students*.iterator();

**while** (it.hasNext()) {

**if** (it.next().getRollNo() == roll) {

it.remove();

System.***out***.println("Student deleted.");

**return**;

}

}

System.***out***.println("Student not found.");

}

**private** **static** **void** updateStudent() {

System.***out***.print("Enter Roll No to update: ");

**int** roll = *scanner*.nextInt();

*scanner*.nextLine();

**for** (Student s : *students*) {

**if** (s.getRollNo() == roll) {

System.***out***.print("Enter new name: ");

s.setName(*scanner*.nextLine());

System.***out***.print("Enter new course: ");

s.setCourse(*scanner*.nextLine());

System.***out***.println("Student updated.");

**return**;

}

}

System.***out***.println("Student not found.");

}

}