import java.util.HashSet;

class Student {

private String name;

private int rollNumber;

// Constructor

public Student(String name, int rollNumber) {

this.name = name;

this.rollNumber = rollNumber;

}

// Getter methods

public String getName() {

return name;

}

public int getRollNumber() {

return rollNumber;

}

// Override toString() method for better representation

@Override

public String toString() {

return "Student{" +

"name='" + name + '\'' +

", rollNumber=" + rollNumber +

'}';

}

// Override hashCode() and equals() methods to identify duplicate based on rollNumber

@Override

public int hashCode() {

return rollNumber;

}

@Override

public boolean equals(Object obj) {

if (this == obj) return true;

if (obj == null || getClass() != obj.getClass()) return false;

Student student = (Student) obj;

return rollNumber == student.rollNumber;

}

}

public class HashSetExample {

public static void main(String[] args) {

// Create a HashSet of Student objects

HashSet<Student> studentHashSet = new HashSet<>();

// Adding Student objects to the HashSet

studentHashSet.add(new Student("Alice", 101));

studentHashSet.add(new Student("Bob", 102));

studentHashSet.add(new Student("Charlie", 103));

studentHashSet.add(new Student("David", 101)); // Duplicate rollNumber, won't be added

// Displaying the Student objects in the HashSet

System.out.println("Student HashSet:");

for (Student student : studentHashSet) {

System.out.println(student);

}

}

}