

Question2

Tester.java

```
// The main tester class
public class Tester {
    public static void main(String[] args) {
        // Setting the number of students
        int num = 20;

        // Creating an array to store Student objects
        Student[] array = new Student[num];

        // Initializing Student objects with names and ID numbers
        // Adding a number of instances of Student to the array.
        for (int i = 0; i < num; i++) {
            array[i] = new Student("Xiaowei Liu-No." + i, 21 + (long)i);
        }

        // Displaying Student information in reverse order
        for (int i = num - 1; i >= 0; i--) {
            System.out.println(array[i].toString());
        }
    }
}

// The Student class
class Student {
    // Attributes of the Student class
    String name;
    Long idNumber;

    // Default constructor
    public Student() {
    }

    // Parameterized constructor to initialize name and ID number
    public Student(String name, Long idNumber) {
        this.name = name;
        this.idNumber = idNumber;
    }

    // Getter method for name
    public String getName() {
        return name;
    }
}
```

```

// Setter method for name
public void setName(String name) {
    this.name = name;
}

// Getter method for ID number
public Long getIdNumber() {
    return idNumber;
}

// Setter method for ID number
public void setIdNumber(Long idNumber) {
    this.idNumber = idNumber;
}

// Override toString method to display Student information
@Override
public String toString() {
    return "Student{" +
        "name='" + name + '\'' +
        ", idNumber=" + idNumber +
        '}';
}
}

```

```
Student{name='Xiaowei Liu-No.19', idNumber=40}  
Student{name='Xiaowei Liu-No.18', idNumber=39}  
Student{name='Xiaowei Liu-No.17', idNumber=38}  
Student{name='Xiaowei Liu-No.16', idNumber=37}  
Student{name='Xiaowei Liu-No.15', idNumber=36}  
Student{name='Xiaowei Liu-No.14', idNumber=35}  
Student{name='Xiaowei Liu-No.13', idNumber=34}  
Student{name='Xiaowei Liu-No.12', idNumber=33}  
Student{name='Xiaowei Liu-No.11', idNumber=32}  
Student{name='Xiaowei Liu-No.10', idNumber=31}  
Student{name='Xiaowei Liu-No.9', idNumber=30}  
Student{name='Xiaowei Liu-No.8', idNumber=29}  
Student{name='Xiaowei Liu-No.7', idNumber=28}  
Student{name='Xiaowei Liu-No.6', idNumber=27}  
Student{name='Xiaowei Liu-No.5', idNumber=26}  
Student{name='Xiaowei Liu-No.4', idNumber=25}  
Student{name='Xiaowei Liu-No.3', idNumber=24}  
Student{name='Xiaowei Liu-No.2', idNumber=23}  
Student{name='Xiaowei Liu-No.1', idNumber=22}  
Student{name='Xiaowei Liu-No.0', idNumber=21}
```