

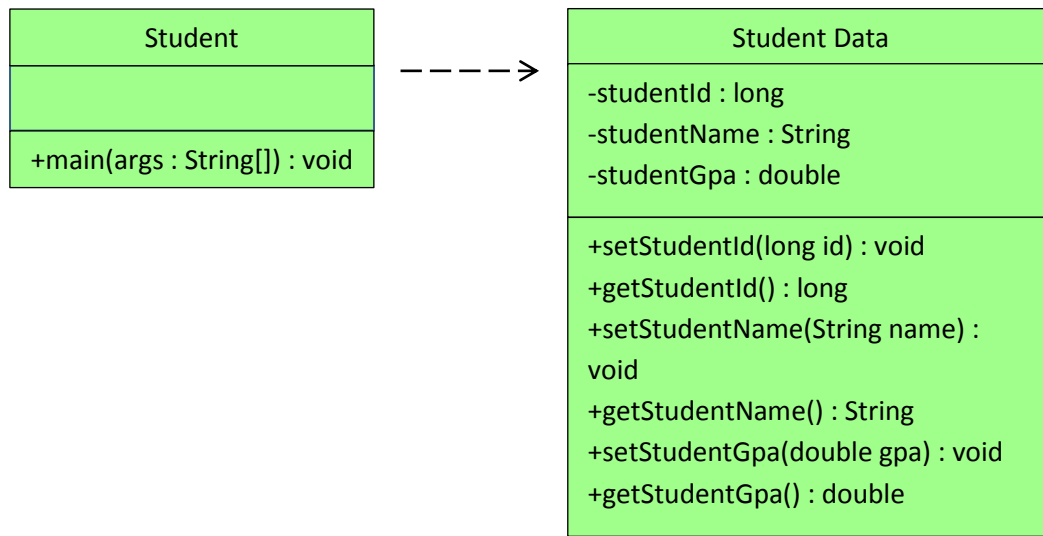
1.

1.1 จงเขียน UML เพื่อออกแบบนักเรียน โดยมีอย่างน้อย 3 attributes และ 3 method ไม่รวม getter/setter methods

1.2 สร้าง Entity Class ที่ได้ออกแบบไว้ในข้อ 1.1 โดยจะ implement ในส่วนที่เป็น method หรือไม่ก็ได้

1.3 เขียน Driver Class ทดสอบการสร้าง Object และ getter/setter method ที่สร้างขึ้น

1.1 UML Class Diagrams



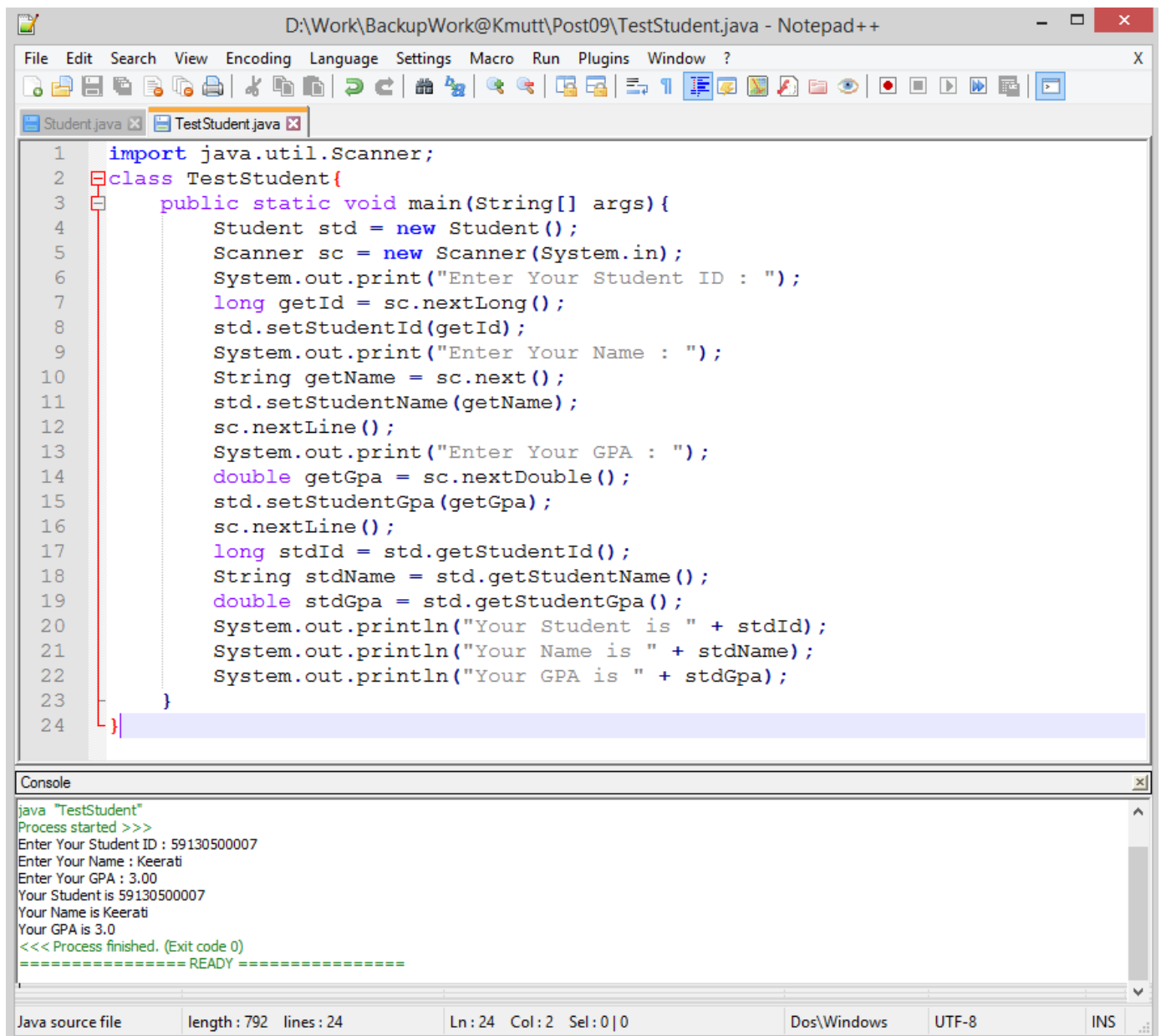
1.2 Entity Class

```

D:\Work\BackupWork@Kmutt\Post09\Student.java - Notepad++
File Edit Search View Encoding Language Settings Macro Run Plugins Window ?
Student.java TestStudent.java
1 class Student{
2     //id attributes
3     private long studentId;
4     //setter
5     public void setStudentId(long id){
6         studentId = id;
7     }
8     //getter
9     public long getStudentId(){
10        return studentId;
11    }
12
13    //name attributes
14    private String studentName;
15    //setter
16    public void setStudentName(String name){
17        studentName = name;
18    }
19    //getter
20    public String getStudentName(){
21        return studentName;
22    }
23
24    //GPA attributes
25    private double studentGpa;
26    //setter
27    public void setStudentGpa(double gpa){
28        studentGpa = gpa;
29    }
30    //getter
31    public double getStudentGpa(){
32        return studentGpa;
33    }
34
35 }
  
```

The screenshot shows the implementation of the **Student** class in Java. The code defines a `Student` class with three private attributes: `studentId` (long), `studentName` (String), and `studentGpa` (double). It implements six public methods: `setStudentId`, `getStudentId`, `setStudentName`, `getStudentName`, `setStudentGpa`, and `getStudentGpa`. The code is written in a Notepad++ window with the file name `D:\Work\BackupWork@Kmutt\Post09\Student.java`.

1.3 Driver Class



The screenshot shows a Notepad++ window with the title "D:\Work\BackupWork@Kmutt\Post09\TestStudent.java - Notepad++". The window contains a Java source file named "TestStudent.java". The code defines a class "TestStudent" with a "main" method. The "main" method uses a "Scanner" to read input from the user, creating a "Student" object, and then prints the student's ID, name, and GPA. The console output shows the program running successfully with the input "59130500007", "Keerati", and "3.00".

```
1  import java.util.Scanner;
2  class TestStudent{
3      public static void main(String[] args){
4          Student std = new Student();
5          Scanner sc = new Scanner(System.in);
6          System.out.print("Enter Your Student ID : ");
7          long getId = sc.nextLong();
8          std.setStudentId(getId);
9          System.out.print("Enter Your Name : ");
10         String getName = sc.next();
11         std.setStudentName(getName);
12         sc.nextLine();
13         System.out.print("Enter Your GPA : ");
14         double getGpa = sc.nextDouble();
15         std.setStudentGpa(getGpa);
16         sc.nextLine();
17         long stdId = std.getStudentId();
18         String stdName = std.getStudentName();
19         double stdGpa = std.getStudentGpa();
20         System.out.println("Your Student is " + stdId);
21         System.out.println("Your Name is " + stdName);
22         System.out.println("Your GPA is " + stdGpa);
23     }
24 }
```

Console

```
java "TestStudent"
Process started >>>
Enter Your Student ID : 59130500007
Enter Your Name : Keerati
Enter Your GPA : 3.00
Your Student is 59130500007
Your Name is Keerati
Your GPA is 3.0
<<< Process finished. (Exit code 0)
===== READY =====
```

Java source file length : 792 lines : 24 Ln : 24 Col : 2 Sel : 0 | 0 Dos\Windows UTF-8 INS