Exercises, SDJ1

Exercise: Read a text file

Create a txt file (e.g. in NotePad) with a semicolon separated list of grade objects (course name and grade). The file could be like the following:

```
SDJ1; 12
RWD1; 10
SEP1; 10
...
```

a) Make a program that reads the file and loads it into a GradeList object (use your solution to the GradeList from a previous exercise). The String methods to split a line to elements into a String array and to convert a String to int may come in handy:

```
String[] split = line.split("; ");
int value = Integer.parseInt("12");
```

Print out the Gradelist to see if you successfully have loaded the file into the GradeList

Exercise: Write to a text file

Make a program that

a) creates a GradeList with some data (either hard coded values or reading a file from the previous exercise

b) Writes the elements from the GradeList into a semicolon separated file (the same format as shown in the previous exercise)

Exercise: Write to a binary file

Make a program that can save a GradeList object into a binary file (note that you have to update the model classes to implement Serializable)

Exercise: Read from a binary file

Read the binary file from the previous exercise and print out the GradeList to the console.

(Exercise: GradeList file – read from and to txt and binary files)

Combine the last 4 exercises into an interface `GradeListPersitence` with two methods (`save` and `load`) and two classes implementing the same interface. Interface and classes implementing the interface are in a package `mediator` and the interface contain the two methods

- A method `load` returning a GradeList object getting a filename as argument
- A method `save` storing a GradeList object getting a filename and the GradeList as argument

a) Implement the interface in a class reading from and writing to a txt file (the first two exercises above)

b) Implement the interface in a class reading from and writing to a binary file (the last two exercises)

c) Implement a class with a main method in which you

- Have a variable of the interface type
- Create a GradeList object with some grades after your choice
- Create an object of the text file class from question a – and call the method to write to the file, and then to read from the fil
- Create an object of the binary file class from question b – and call the method to write to the file, and then to read from the file