Assignment 10

Topics: Java I/O

NOTE: exercises with prefix *** are not mandatory

1. Read about Java I/O at:
    http://docs.oracle.com/javase/tutorial/essential/io/

2. Extend the class *Student* to include storing capabilities. To that extend add a method that allow to store student objects into a file as well as reading in S*tudent* objects from the same file. Further, add a method that takes the average grade as a method parameter and, according to it, stores all the S*tudent* objects whose average grade is above into a certain file called e.g. above_4.dat (given 4 is the average grade of reference).

3. Extend the class *Student* to include a method/constructor for which the data of the *Student* class are entered by keyboard

4. Build a logging facility for the *Student* class that keeps a log file of everything that happens during program execution. So, for instance, there will be a class *MyLog* with a static method *log(String s)* that writes the *String s* to a file called e.g. MyLog.txt. Make a test, where you use the logging facility when you execute another program (call *MyLog.log("test")*, where you would normally have used e.g. a *System.out.println* or similar methods to display messages related to the functioning of the application). In the *Student* class, you should log anytime an object is created, destroyed, data are saved and where this happens, etc. You decide what to log.

5. Extend the logging facility with methods used to indicate whether the log facility should write to a file or to the console or to log at all!

6. ******* Change the program so that log files are never overwritten