SEMINAR 4

1. OBJECTIVES

- Work with input/output streams, define custom extraction/insertion operators.
- Read/write data from/to files.

2. PROBLEM STATEMENT

Design an application to help persons monitor their health state. The application will store all the analyses ever made for a person, regarding two medical markers: BMI (Body Mass Index) and BP (Blood Pressure). For any analysis, *the date* when it was made must be stored.

Any type of analysis (BMI or a BP) can be added:
- The BMI measurement is characterized by a real value. This result is considered ok if it belongs to the interval [18.5, 25].
- The BP measurement is characterized by a systolic value and a diastolic value, both integers. The result is considered ok if systolic value in an integer in the interval [90,119], and the diastolic one is an integer in the interval [60, 79].

The application should allow the following functionalities:
1. Read all BMI analyses from a file and all BP analyses from another file. Add all these read analyses to the person's medical record.
2. Show all analyses.
3. Save to a file all the analyses between two given dates. For each analysis, write the correct data to the file: type (BMI or BP), date, values and if the result was ok or not.