**Lab1**

* Create teams (two or three students)
* Choose a lab problem from the *lab-problems* file (not the first one)
* Work with git and bitbucket (private repo!)

**1 (7p).** Se citeste un string *s*. Sa se afiseze clientii al caror nume contine stringul *s*

**2 (2p).** Se citeste un intreg *a*. Sa se afiseze filmele/cartile astfel:

* Intai filmele/cartile al caror an de aparitie este inainte de *a*
* Apoi cele al caror an de aparitie este dupa *a*

Filmele/cartile din anul *a*, pot fi incluse in oricare dintre categorii.

**3 (1p).** Se citeste un intreg *a*. Sa se afiseze filmele/cartile astfel:

* Intai filmele/cartile al caror an de aparitie este inainte de *a* sortate alfabetic dupa titlu
* Apoi cele al caror an de aparitie este dupa *a* sortate descrescator dupa anul de aparitie

Exemplu:

* Pentru a = 2001 si lista:

[

("b3", 2002),

("b4", 2003),

("b2", 1999),

("b1", 2000)

]

rezultatul va fi:

[("b1", 2000), ("b2", 1999), ("b4", 2003), ("b3", 2002)]

Observatii: Pentru fiecare problema de mai sus va exista o singura functie la nivel de service (in problema voastra de laborator), functie care va fi apelata in consola; in consola nu se face niciun fel de procesare.

**Lab2 - Networking (sockets)**

Write a client server application using sockets (see examples) for implementing a distributed calculator with the following features:

* Compute the sum of a given list of integers
* Compute the product of a given list of integers
* Given three natural numbers a, b, and d, return all numbers in the interval [a, b) that are divisible by d
* Given three natural numbers a, b, and d, return all numbers in the interval [a, b) whose last two digits (considered as one number) are divisible by d.

Remarks:

* The server should be concurrent
* There should be a menu or command based ui