Assignment 4: Mini-Project 3: APIs

The **objective** of this assignment is to let you compare, choose, design, and implement various APIs as a mean of inter-service communication in microservices architecture.

The **task** is to extend the School Micro Info System with services that allow the students to buy books, related to their study programme, from the library.

Your solution should consider using a source of books recommendation, control of books' availability at the library store, and some accounting, useful for the student's budget.

You are free to decide on

- the functional and non-functional requirements specification
- the architectural design of the application
- the choice of the types of the APIs, used to enable efficient communication between the services.

However, it is a mandatory requirement to develop and implement at least one RESTful API and at least one gRPC API.

Optionally, you can implement some/any messaging platforms for communication, as well.

The task includes a peer review of other project solutions. The review should address questions about:

- the proper selection of technologies and the criteria, used for making the choices
- the quality of the design
- the readability of the diagrams and the code
- the readiness for further extention and upgrade of the system with new microservices
- the proper use of standards, recommendations, and the best practices od software development

This is a group task.

It brings 20 study points for each of the participating group members: 15 for the solution and 5 for peer-grading of other solutions.

Wish you success,

the instructor

tdi@cphbusiness.dk