

System Integration

Mini Project 1: Web Services and APIs

Assignment

Objectives

The main objective of this task is to provide the students with practical experience in creating and integrating small-scale enterprise applications with a service-oriented architecture.

Tasks

Your task is to create a **school-management system** with a limited, but reasonable functionality within the domain, as defined by the development team. Your solution must fulfil the following technical requirements:

1. The application integrates services, which can be accessed through variety of interfaces:
 - at least one service communicated by gRPC technology implementation
 - at least one SOAP service consumed from a public repository by use of WSDL interface
 - at least one REST service accessed by RESTful API
2. The application uses one or data stores: databases and/or data files.
3. The application and the underlying services are deployed either locally or remotely on an external server, permanent access for test purposes is needed.
4. General API testing tools like Postman, BloomRPC, and cURL can be used as a test client of your application.
5. The project source code must be stored in a Github repository, with an informative readme file, presenting the development team, the project solution specifications, and installation instructions.

There is no requirement for using specific programming languages or development environments.

Requirements

This project is **mandatory**. It is a **teamwork**. The recommended size of a team is 3 students. There is no restriction on forming the teams.

Presentation and Demonstration

The project solutions must be uploaded to Peergrade before 28/09/2021, according the schedule. After the submission you will be asked to provide feedback to another group, working on the same assignment

Some of the teams will be invited to present and demonstrate their solutions to the class.

The development, presentation, and the feedback review bring 15 study points all together.

From the instructor