The group work commission is to create a Flask based web service by using Python and RESTful API. A permanent data storage i.e. database must be utilized.

The subject of the web service must be accepted by the instructor before the group can start working on it. Before suggesting anything read through the evaluation criteria given later in this document. Another alternative is to implement a web service shortly described below.

*TUAS has a lot of free workspaces after 16 and before 21 o’clock during weekdays. Auditoriums, meeting rooms, classrooms etc. A web service is needed where a client can create or cancel a reservation for a workspace. A client can be anyone, even outside TUAS. It should also be possible to add, edit and delete clients and workspaces into the system. Of course, the clients themselves should not be able to create, edit or change the workspaces. For reasons of privacy, they also should not be able to view, edit or delete the information of the other clients. Listings of clients, workspaces and reservations should be available. The system should watch over that duplicate reservations are not possible. It should also keep record of data creation dates and times, as well as the dates and times of last modifications.*

In case you decide to implement a web service for your own subject, please post a short description of your group’s suggested subject into Teams channel “Teamwork Subjects for Acceptance” no later than Wed 11 November 2020 at 16.00. It is enough that one member of the group returns the description but take care that the group number is mentioned in the posting. The instructor will then comment and accept/reject it. In case you decide to implement the web service for the workspace reservations give above, one member of your group should just post the group number and a message “Workspace reservation system”. No instructor’s acceptance is required in that case.

The evaluation will happen by demonstrating 1) the functioning web service and 2) the source code to the instructor and other students online. Please, write a short note “For Teamwork Evaluation” (about one or two pages long) where you describe the idea of your web service and suggest a grade you deserve. In that note, pay special attention for the reasons behind your grade suggestion. Return this note to the Teams no later than at least a day before your group’s agreed presentation session.

The presentations sessions will be arranged on a week starting 16 December 2020. The 10 to 15 minutes long time slots will be published later in Teams for you to reserve.

The evaluation scale is the following: 0, 0.5, 1.0, 1.5 and 2.0 grade units. The group needs to get at least 0.5 grade units to pass the course. The individual member of a group can receive a different evaluation than the others based on her or his real activity.

The maximum number of points available from the teamwork is 35.

Please note that the personal points of team members can vary. I passive member can be left totally without points. An especially active and cooperative member pointed out by the other members can get a couple of extra points. All the members must participate in programming actively.

The minimum requirement for an accepted teamwork is 15 points. To earn that it is expected that

* the implemented web service is implemented for an accepted subject,
* the implemented web service functions,
* there must be at least 3 different tables in the database,
* the web service must be able to read and write data at least from and into three different tables in the database,
* a RESTful API for with the necessary resources is implemented,
* the web service and its source code is presented online to the instructor in agreed time

You can earn in maximum 5 more points by implementing a login functionality i.e. at least some resources are available only for a logged in user.

You can earn in maximum 5 more points by validating data.

You can earn in maximum 5 more points by following closely MVC architectural pattern or some other explicitly declared architectural patterns.

You can earn in maximum 5 more points by managing the project’s source code and collaborative development in a Git repository.

You can earn in maximum 5 more points by importing and using a package in your web service that was not learned during the exercises or online sessions i.e. was not included in the chapters of the book that were included as reading material during the course.

You can earn in maximum 5 more points by implementing a client program that makes it possible to user your web service.