Task-1

1.1   Task-1-1: Application of SOA

Goal

Learn concepts behind SOA.

Prerequisites

Review lecture materials and suggested there learning materials.

Task

Brainstorm within your team an idea of some interesting and useful service/system with large enough scope. Describe the idea with all the main features of the system and possible user story (use-case) on the slides (supportive graphical illustration is appreciated). Think how to split whole business logic of the service into separate parts, and show the business logic and interactions (dataflow) within the split architecture. Collect (write it down to the slides) grounds of such split and mention concerns/doubts if any as well. Be prepared to present your idea during the Demo Session and discuss it with other course participants.

1.2   Task-1-2 (individual): A Simple Client to SOAP Web Services

Goal

Learn to use SOAP Web Services and Servlets.

Prerequisites

Learn what a SOAP web services and Java Servlets are. Review lecture materials and suggested there learning materials.
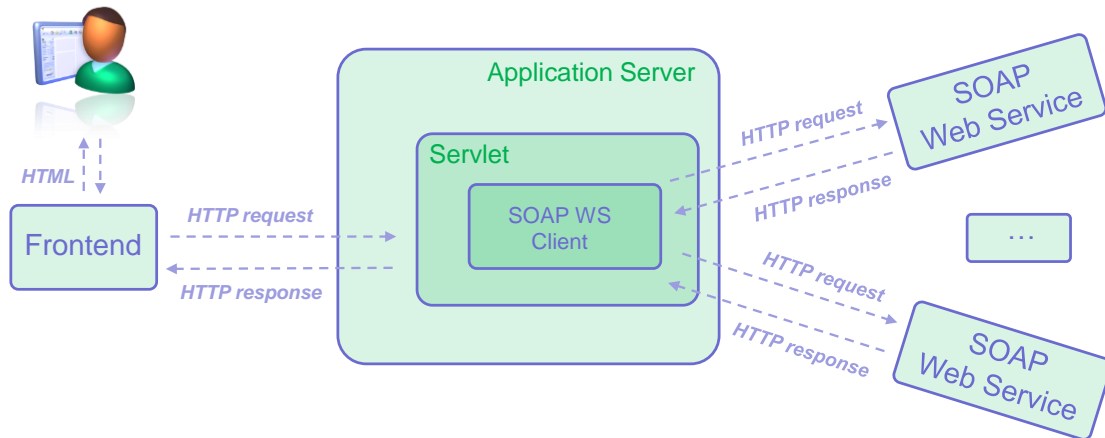
Task

This assignment contains a programming part as well as couple of slides explaining background behind your implementation. The main idea of the task is to build a Web App that uses remote SOAP based Web Services to facilitate own business logic of the App.

Think about business logic of your App that will integrate functionality of couple of remote web services. You may use web services available from the course webpage (list of SOAP Web Services in materials for Task 1) as well as any other web services you may find in the web. Please, if you find and use extra service (not from the provided list), mention it explicitly in your slides. Your Web App should provide some added value in comparison to the outcomes of separate individual Web Service your app uses. Your app is not a simple human-oriented endpoint of the remote web service. Your app

should have one human interface (front-end) and logic of the app should either integrate the responses of web services or use response of one web service to invoke another one, etc. In case, you will not manage to invent such business logic of the App where outcomes of several other web services are integrated and support provisioning of a new outcome, you should add extra functionality inside your App (simple mediation is not acceptable).

In addition to the information about your App (the main idea and logic, URL of your frontend), include also information about the services you have used (description, URL, link to WSDL file, etc.) into presentation. It would be also nice; if you include some examples of inputs to your App (it is always a good practice to provide examples for the user on App's frontend, if it is suitable for the GUI implementation). Also, include screen shots of your working solution to the slides.

1.3   *Returning the task*

Provide the result of the tasks as corresponding archives:

TIES4560-Task-1-1.zip: *it is enough if one of the team members send the results of this task, but each team member should send individual self/cross evaluation.*

- o   ***presentation slides*** *(do not forget to mention names of the team members)*
- o   ***individual self- and cross-assessment***. *Each student sends individual email with own opinion where simply distribute 100 points among group members as indication of personal contribution of each team member to the group work.*

TIES4560-Task-1-2.zip: *should be sent by each student separately.*

- o   ***presentation slides*** *(do not forget to mention you name)*
- o   ***project source codes***
- o   ***WAR file of the project to be run on Tomcat server*** *(be sure that it contains all required libraries)*

Send the Task-1 results to lecturer (oleksiy . khriyenko @ jyu . fi). It is always reasonable to place the file(s) to some of the webstores (Google Drive, Dropbox, university web drive W:, etc.) and send the link to download.

Deadline: **12.09.2023 (before 12:00)**