

Informatique Répartie

SOAP supervised work

ASI4 - INSA Rouen Normandie

The compressed file **examples.zip** contains the source code that was discussed during the lecture. It contains several Java packages.

1. Follow the instructions given during the lecture and execute all the `TimeServer` project, in particular the SEI, the SEB and the publisher.
2. Test your server with a browser and get the WSDL document
Analyse it as required during the lecture
3. Compile and execute the client for the `TimeServer` service
4. Open the `TimeServerImpl.java` class and remove `implements TimeServer` in the definition of the class. Does the whole work now? Why? Is it advisable to do this? Why?
5. **Optional:** develop a multithreading version of the publisher. In fact, the current version of the publisher is single-threaded. Therefore, it is capable of handling only one client request at a time: the published service completes the processing of one request before beginning the processing of another request. If the processing of the current request hangs, then no subsequent request can be processed unless and until the hung request is processed to completion
6. More on WSDL: In the `TimeServer` project, and in particular in its SEI, comment the line `@SOAPBinding(style = Style.RPC)` to change it to a document style. Rebuild the WSDL document and compare it with the RPC style version that you had before.
What are the main differences?
7. Follow the instructions given during the lecture and execute and test the `Teams` project.
8. Develop a web service to calculate the body mass index of a client. The body mass index is calculated as the ratio between the weight of the person (in kg) and the square of his or her height (in m). Your server, therefore, should have a method that receives two parameters.
 - a. Explore the use of the `@WebParam` annotation.
 - b. Remark that you should use `wsgen` (on the server side) and `wsimport` (on the client side)
 - c. Analyse the WSDL file
9. The idea now is to write a client to consume a service provided by a tierce party. Explore, for example (remember to use `wsimport`):
 - a. <http://www.thomas-bayer.com/soap/csv-xml-converter-webservice.htm>
 - b. <http://www.gcomputer.net/webservices/knowledge.asmx>
 - c. <https://www.w3schools.com/xml/tempconvert.asmx>
 - d. Or others ...