

02267: Software Development of Web Services

2.1 Software installation and the Calculator Web service

- If you haven't finished the exercise from last week, do so this week.

2.2 Web Service Monitoring

- Using tcpmon, check what messages are exchanged between client and server from previous weeks' exercise (see instructions on the course Web page).
- How is the message exchange different from the others when one requests a division by zero?

2.3 Calling and Monitoring a Web service

This exercise gives you another possibility to use JUnit to access a Web service and monitor the message exchange.

- a) Write a client for the temperature conversion Web service offered by webservice.net. You find the WSDL of that service here:
`http://www.webservice.net/ConvertTemperature.asmx?WSDL`.
Download the WSDL to generate the client stubs.
 - You can also use other Web services announced at `http://free-web-services.com`. Make sure they are SOAP based services. We cover REST based services later in the lecture.
- b) Using JUnit, create test methods for testing the use of that Web service. One of the tests should convert 100 degrees Celsius in Fahrenheit; the other 100 degrees Fahrenheit in Celsius. From the services being offered in the WSDL file (and after you have generated the WSDL client stubs) you should be using the SOAP based services, i.e. `ConvertTemperatureSoap` or `ConvertTemperatureSoap2`. The temperature units have corresponding constants defined in the class `TemperatureUnit`, `DEGREE_CELSIUS` and `DEGREE_FAHRENHEIT`.
- c) Monitor the communication between your client and the server using tcpmon