

# Distributed Systems

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## Lab Assignment 2: Web Services

Grade: 10%

Deadline: **Monday 1 December** (2 weeks time)

### Goal

Web Services are widely used for application-to-application communication. Unlike RMI (which makes use of the specified JRMP protocol), web services' communication is based on the standard Internet protocols (HTTP) and data format (XML).

### Preparation

- To get general information about web services, read the Wikipedia web service page.
- Download and install *MyEclipse* from <http://www.myeclipseide.com>. MyEclipse is commercial, but free for a test period of 30 days. It contains a web service developing tool which you can use to build your webservice.
- Work through the following tutorial making use of the MyEclipse IDE to build and test web services: <http://www.myeclipseide.com/documentation/quickstarts/webservices/>.

### Task

You are asked to create a simple web service and write an application to use the web service.

The Web Service is called Fruit Price Service, and it keeps a fruit-price table to record the different kinds of fruit prices. It will provide clients with four services so that they can add fruit prices, update fruit prices, delete fruit prices or calculate fruit cost.

We give you a service interface definition. Download it here.

Use MyEclipse to build the fruit price web service project. In the web service project, write a class to implement the four services defined in the interface.

Use MyEclipse to build another client project. In the client project, write a class to access the four fruit price web services (add fruit price, update fruit price, delete fruit price and calculate fruit cost).

Note: When you install MyEclipse, a MyEclipse Tomcat application server will also be installed. Please make sure to use MyEclipse Tomcat as your application server to test your Web Service since we will use this server when we mark the assignments.

Although you can test your web service locally (by pointing your browser at localhost:8080), you should also test it by running your client application and your web service on different computers.

### Deliverables

Send by email (please don't forget "DS:" in the subject) the following:

- the ZIP file containing your whole web service project.
- the ZIP file containing your whole client project.

We will test them on our MyEclipse IDE.

Note: In MyEclipse, use "export" to save a MyEclipse project into a ZIP file.