

# PropEr Web Testing Tutorial for Dummies

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## 1 Preliminaries

In this tutorial, we present an example of using PropEr to test a Web Service. We use an example web service created with Eclipse and Apache Tomcat v6.0, the creation of which we also briefly describe. Then, we show how to use Erlang package Yaws with proper to test the Web Service.

## 2 Creating The Web Service

### Installation

#### Tomcat

Download and install Apache Tomcat v6.0.

#### Eclipse

Download and install Eclipse and create a new Server - which we call "localhost" from now on.

#### Code

Get the code of Contains.java from the following github repo: <https://github.com/lemonidas/Erlang-WebService-Testing>.

### Creating and publishing the web service

Create a new Dynamic Web Project, "ContainsProj". Copy Contains.java in the src directory in (a new) package "foo". Having this file selected choose File->New Web Service. In the wizard, leave the default Bottom up, Contains.java as implementation and the sliders at Start Service + No Client. Select Publish the web Service and continue. Now to test that all has gone well, open a browser and write the address: <http://localhost:8080/ContainsProj/services/Contains?WSDL>. The wsdl specification of the created web service should appear.

## 3 Testing the Web Service

### Installation

Download and Install Yaws.

### Testing

If all has gone well, opening an erlang shell and typing:

```
proper:quickcheck(contains_prop:prop_list_contains_x())
```

should start testing the service. In this particular example, the implementation of contains is faulty and returns a wrong result when the "list" sent to the web service contains an even number of occurrences.