

## 1. Preparing the environment

- Create an environment variable TPWS and give it as a value you working directory
- Copy axis2-1.5.1 to your working directory
- Update and run set-env.sh
- Run axis2server.sh

## 2. First Web service HelloWorld

- Create this folder tree

```
- helloService
  - META-INF
    - services.xml
  - hello
    - HelloWorld.java
```

- Define the HelloWorld.java
- Fill the services.xml as follows

```
<service name="HelloWorldService" scope="application">
  <description>
    Hello World Service
  </description>
  <messageReceivers>
    <messageReceiver mep="http://www.w3.org/2004/08/wsdl/in-only"
class="org.apache.axis2.rpc.receivers.RPCInOnlyMessageReceiver"/>
    <messageReceiver mep="http://www.w3.org/2004/08/wsdl/in-out"
class="org.apache.axis2.rpc.receivers.RPCMessageReceiver"/>
  </messageReceivers>
  <parameter name="ServiceClass">
    hello.HelloWorld
  </parameter>
</service>
```

- Copy helloService to \$AXIS2\_HOME/repository/services/
- Access to your service using : <http://localhost:8080/axis2/services/>
- Test it using <http://localhost:8080/axis2/services/HelloWorldService/hello>

## 3. Create a java client for HelloWorld service

- Run `wsdl2java.sh -uri http://localhost:8080/axis2/services/HelloWorldService?wsdl -d add`
- Create the Client as follows

```
import hello.HelloWorldServiceStub;
import hello.HelloWorldServiceStub.HelloResponse;
public class Client {
    public static void main (String [] args){
        try{
            //creation d'un stub pour le service Web Hello World
```

```

        HelloWorldServiceStub stub = new HelloWorldServiceStub();
        //invocation de la methode hello
        HelloResponse resp = stub.hello();
        // affichage de resultat
        System.out.println(resp.get_return());
    }catch(Exception e){
        System.out.println(e);
    }
}
}
}

```

### 3. Create a multi-operation web service

- Create a web service having 4 operations simulating a calculator such us: addition, multiplication, double, square, etc.
  - To invoke the sdquare operation you type  
<http://localhost:8080/axis2/services/Calculator/square?args0=10> one o
- Crete a client for this Web service

### 4. Develop a web service from wsdl file

- Create this folder tree

```

- Addition
  - META-INF
    - Addition.wsdl

```

- Generate the java files using this command  
`wsdl2java.sh -uri META-INF/Addition.wsdl -p addition -d adb -s -ss -sd -ssi`
- Add the business logic to AdditionServiceSkeleton.java

```

        int a = additionner0.getEntier1();
        int b = additionner0.getEntier2();
        calculette.AdditionnerResponse resp = new
calculette.AdditionnerResponse();
        resp.setResultat1(a+b);
        return resp;

```

- Run « ant start.server »
- Deploy the service by cpying build/lib/AdditionService.aar to /repository/services/
- Develop a client