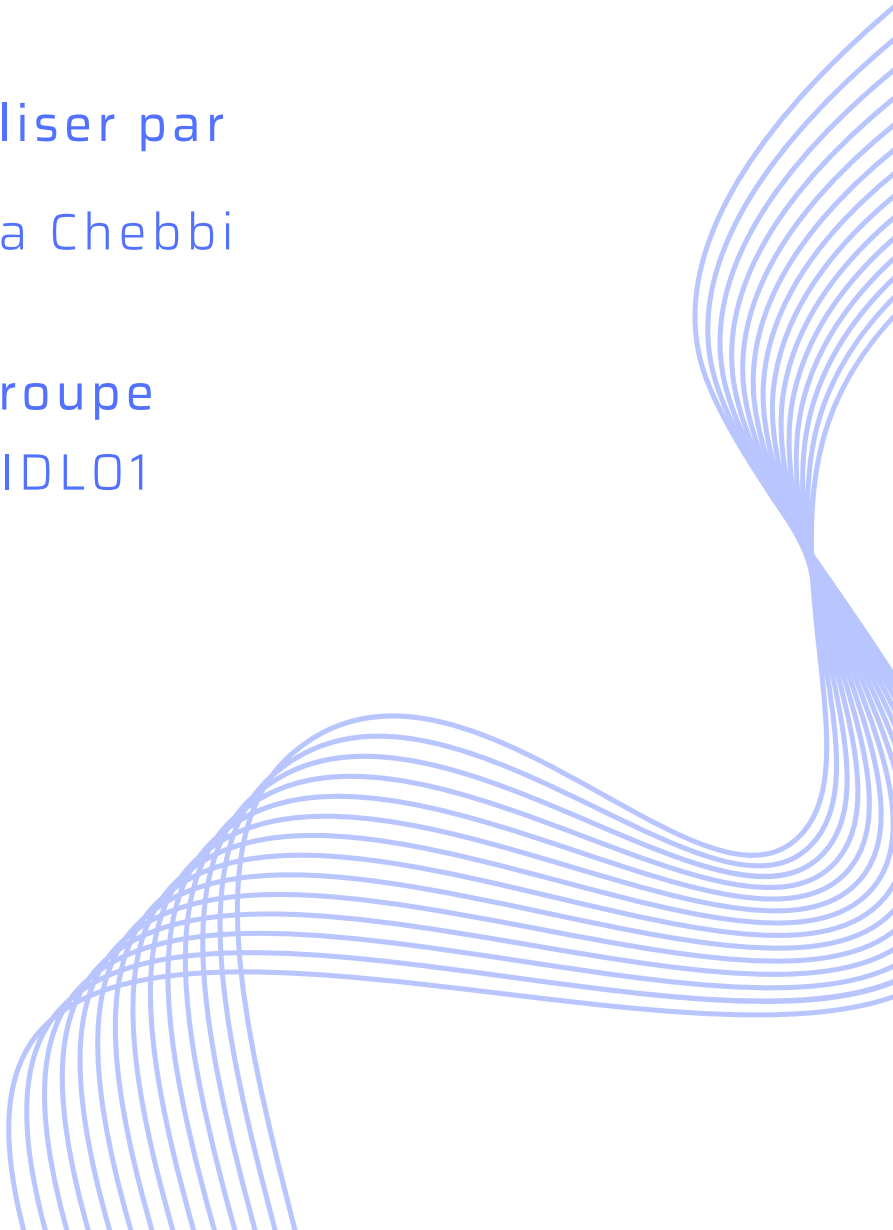


Compte rendu

# TP DÉVELOPPEMENT ORIENTÉ SERVICES

Réaliser par  
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# Exemple1 : implémentation d'un service web calculatrice

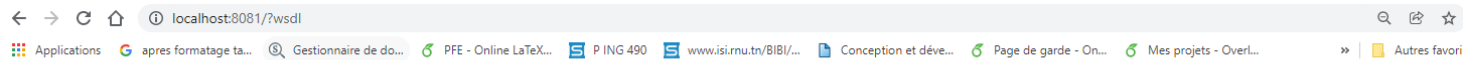
## 1 - Création de la classe Calcul

```
serveur.java  Calcul.java ✕
1  package idl1;
2
3
4
5+ import javax.jws.WebMethod;
6
7
8
9  @WebService
10 public class Calcul {
11     //exposé dans le web
12     @WebMethod
13     public int somme(@WebParam(name="a")int a ,@WebParam(name="b") int b ){
14         return a+b;
15     }
16
17     @WebMethod
18     public int soustraction(@WebParam(name="a")int a ,@WebParam(name="b") int b ){
19         return a-b;
20     }
21
22     @WebMethod
23     public int multiplication(@WebParam(name="a")int a ,@WebParam(name="b") int b ){
24         return a*b;
25     }
26
27
28
29 }
30
```

## 2- Création de serveur pour publier les web services

```
serveur.java ✕  Calcul.java
1  package idl1;
2
3  import javax.xml.ws.Endpoint;
4
5  public class serveur {
6
7
8      static final String URL ="http://localhost:8081/";
9
10     public static void main(String[] args) {
11         // TODO Auto-generated method stub
12         System.out.println("running on"+URL);
13         Endpoint.publish(URL, new Calcul());
14     }
15
16 }
```

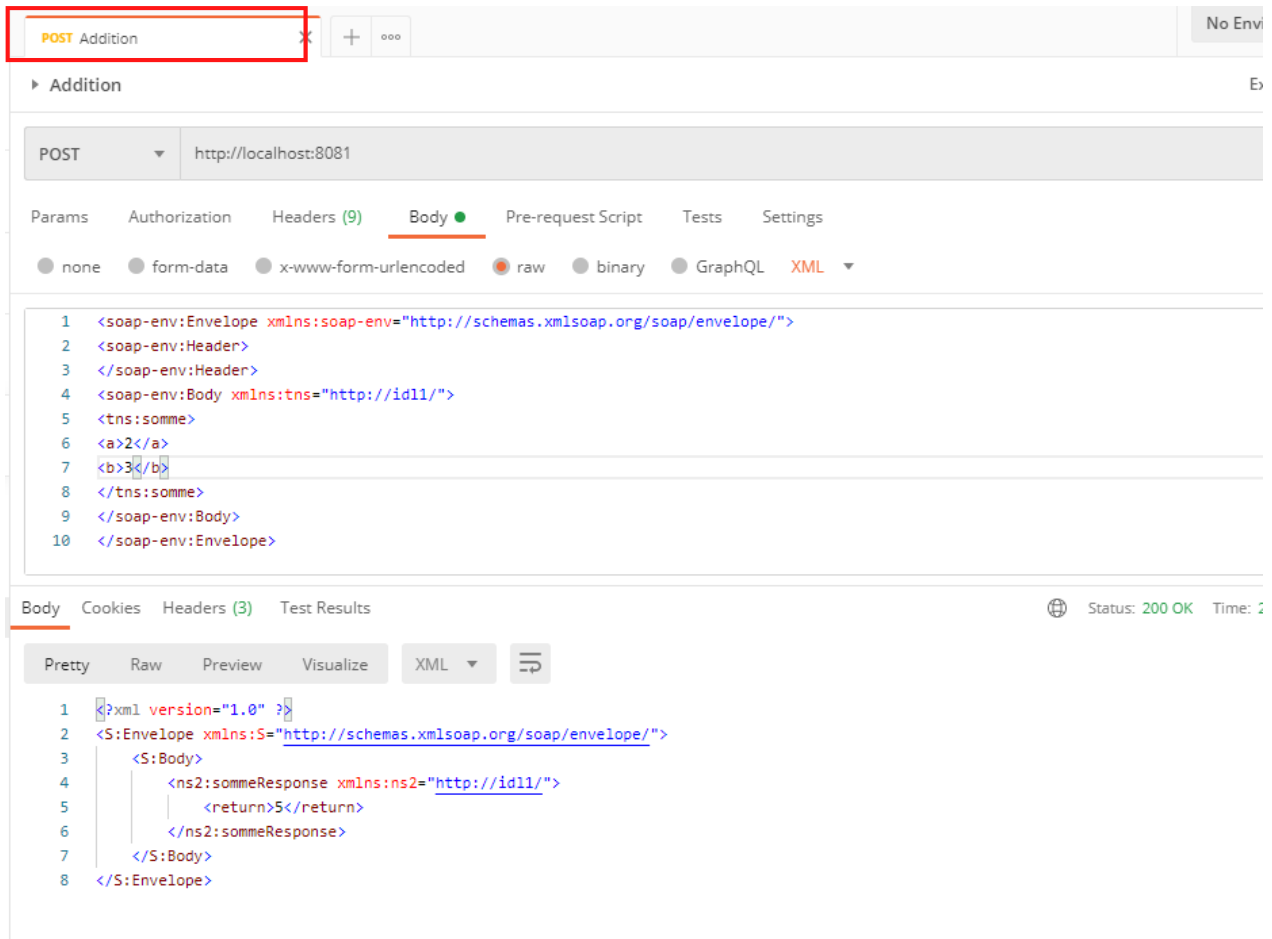
### 3- Génération de fichier WSDL



This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
<!-- Published by JAX-WS RI (http://jax-ws.java.net). RI's version is JAX-WS RI 2.2.9-b130926.1035 svn-revision#5f6196f2b90e9460065a4c2f4e30e065b245e51e. -->
<!-- Generated by JAX-WS RI (http://jax-ws.java.net). RI's version is JAX-WS RI 2.2.9-b130926.1035 svn-revision#5f6196f2b90e9460065a4c2f4e30e065b245e51e. -->
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<definitions xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd" xmlns:wsp="http://www.w3.org/ns/ws-policy" xmlns:wsp1_2="http://schemas.xmlsoap.org/ws/2004/09/policy"
xmlns:wsam="http://www.w3.org/2007/05/addressing/metadata" xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" xmlns:tns="http://idl1/" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns="http://schemas.xmlsoap.org/wsdl/"
targetNamespace="http://idl1/" name="CalculService">
  <types>
    <xsd:schema>
      <xsd:import namespace="http://idl1/" schemaLocation="http://localhost:8081/?xsd=1"/>
    </xsd:schema>
  </types>
  <message name="multiplication">
    <part name="parameters" element="tns:multiplication"/>
  </message>
  <message name="multiplicationResponse">
    <part name="parameters" element="tns:multiplicationResponse"/>
  </message>
  <message name="soustraction">
    <part name="parameters" element="tns:soustraction"/>
  </message>
  <message name="soustractionResponse">
    <part name="parameters" element="tns:soustractionResponse"/>
  </message>
  <message name="somme">
    <part name="parameters" element="tns:somme"/>
  </message>
  <message name="sommeResponse">
    <part name="parameters" element="tns:sommeResponse"/>
  </message>
  <portType name="Calcul">
    <operation name="multiplication">
      <input wsam:Action="http://idl1/Calcul/multiplicationRequest" message="tns:multiplication"/>
      <output wsam:Action="http://idl1/Calcul/multiplicationResponse" message="tns:multiplicationResponse"/>
    </operation>
    <operation name="soustraction">
      <input wsam:Action="http://idl1/Calcul/soustractionRequest" message="tns:soustraction"/>
      <output wsam:Action="http://idl1/Calcul/soustractionResponse" message="tns:soustractionResponse"/>
    </operation>
    <operation name="somme">
      <input wsam:Action="http://idl1/Calcul/sommeRequest" message="tns:somme"/>
      <output wsam:Action="http://idl1/Calcul/sommeResponse" message="tns:sommeResponse"/>
    </operation>
  </portType>
  <binding name="CalculPortBinding" type="tns:Calcul">
    <soap:binding transport="http://schemas.xmlsoap.org/soap/http" style="document"/>
    <operation name="multiplication">
      <soap:operation soapAction="">
        <input>
          <soap:body use="literal"/>
        </input>
      </soap:operation>
    </operation>
  </binding>
</definitions>
```

### 4- Tester sur postman



POST Soustraction

+

...

Soustraction

POST

http://localhost:8081

Params

Authorization

Headers (9)

Body

Pre-request Script

Tests

Settings

none

form-data

x-www-form-urlencoded

raw

binary

GraphQL

XML

```
1 <soap-env:Envelope xmlns:soap-env="http://schemas.xmlsoap.org/soap/envelope/">
2 <soap-env:Header>
3 </soap-env:Header>
4 <soap-env:Body xmlns:tns="http://id11/">
5 <tns:soustraction>
6 <a>5</a>
7 <b>2</b>
8 </tns:soustraction>
9 </soap-env:Body>
10 </soap-env:Envelope>
```

Body

Cookies

Headers (3)

Test Results

Pretty

Raw

Preview

Visualize

XML

```
1 <?xml version="1.0" ?>
2 <S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/">
3   <S:Body>
4     <ns2:soustractionResponse xmlns:ns2="http://id11/">
5       <return>3</return>
6     </ns2:soustractionResponse>
7   </S:Body>
8 </S:Envelope>
```

POST Multiplication

+

...

Multiplication

POST

http://localhost:8081

Params

Authorization

Headers (9)

Body

Pre-request Script

Tests

Settings

none

form-data

x-www-form-urlencoded

raw

binary

GraphQL

XML

```
1 <soap-env:Envelope xmlns:soap-env="http://schemas.xmlsoap.org/soap/envelope/">
2 <soap-env:Header>
3 </soap-env:Header>
4 <soap-env:Body xmlns:tns="http://id11/">
5 <tns:multiplication>
6 <a>5</a>
7 <b>2</b>
8 </tns:multiplication>
9 </soap-env:Body>
10 </soap-env:Envelope>
```

Body

Cookies

Headers (3)

Test Results

Pretty

Raw

Preview

Visualize

XML

```
1 <?xml version="1.0" ?>
2 <S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/">
3   <S:Body>
4     <ns2:multiplicationResponse xmlns:ns2="http://id11/">
5       <return>10</return>
6     </ns2:multiplicationResponse>
7   </S:Body>
8 </S:Envelope>
```

## Exemple2 : implémentation d'un service web UserService

### 1 - Création de la classe User

```
User.java
1 package idl1;
2
3 import javax.xml.bind.annotation.XmlAccessType;
4
5 @XmlRootElement
6 @XmlAccessorType(XmlAccessType.FIELD)
7 public class User {
8     private String username;
9     @XmlTransient
10    private String password;
11    public String getUsername() {
12        return username;
13    }
14    public void setUsername(String username) {
15        this.username = username;
16    }
17    public String getPassword() {
18        return password;
19    }
20    public void setPassword(String password) {
21        this.password = password;
22    }
23    public User(String username, String password) {
24        super();
25        this.username = username;
26        this.password = password;
27    }
28    public User() {
29        super();
30    }
31 }
32
33
34
35
36
```

## 2 - Création de UserController

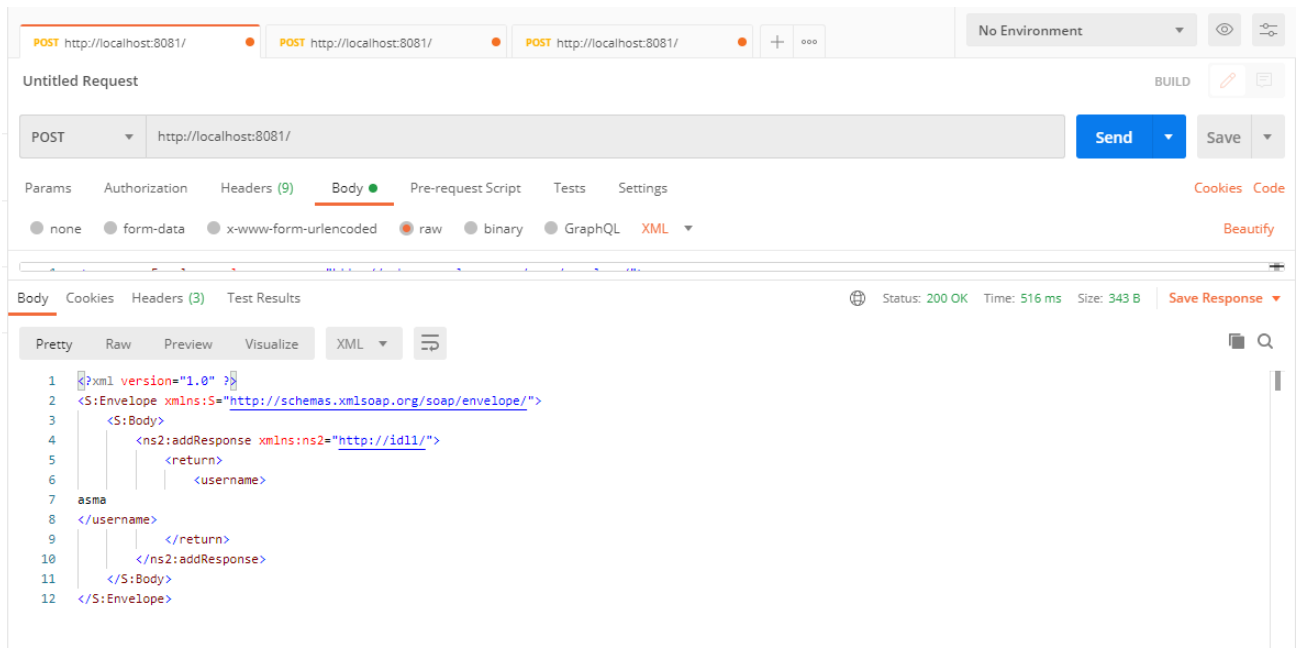
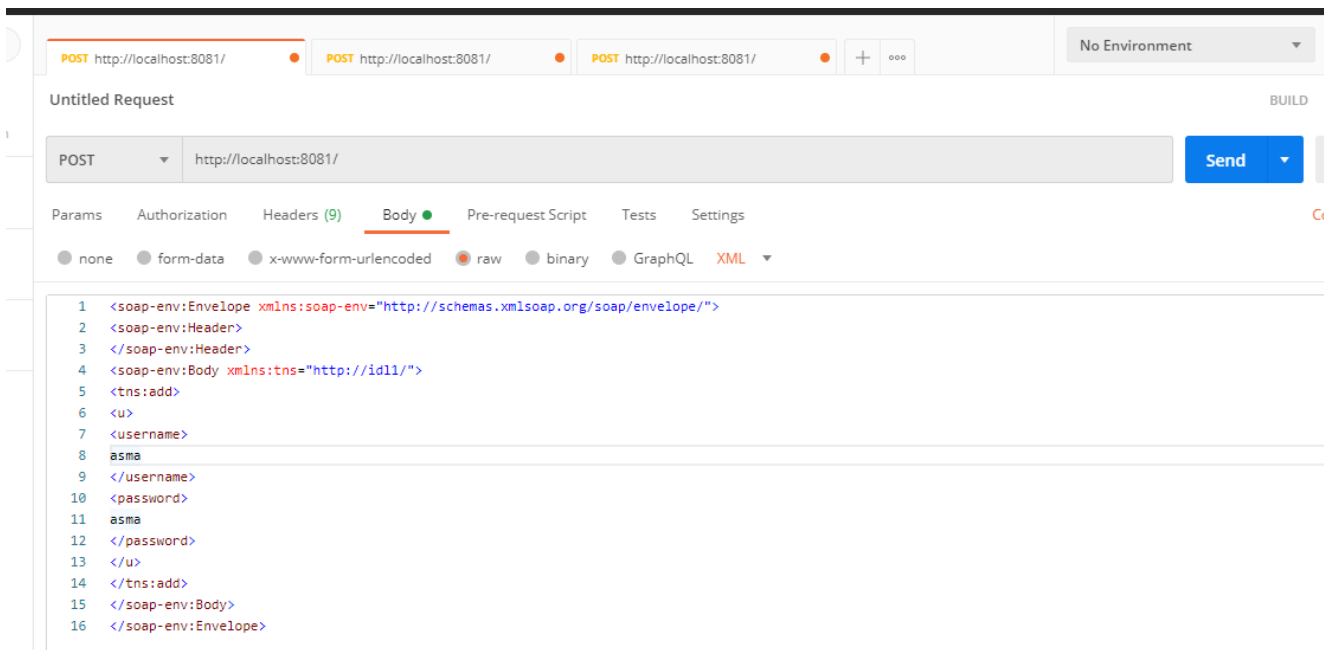
```
seur.java  User.java  UserController.java  ⌵
1  package idl1;
2
3  import java.util.ArrayList;
4
5  @WebService
6  public class UserController {
7      public List<User> listU=new ArrayList<>();
8
9      @WebMethod
10     public User add(@WebParam(name="u")User u ){
11         listU.add(u);
12         return u;
13     }
14
15     @WebMethod
16     public List<User> delete(@WebParam(name="id")int id ){ //id is the index of the user to be deleted
17         listU.remove(id);
18
19         return afficheruser();
20     }
21
22     @WebMethod
23     public List<User> afficheruser(){
24
25         return listU;
26     }
27 }
28
29
30
31
32
```

## 3- Création de serveur pour publier les web services

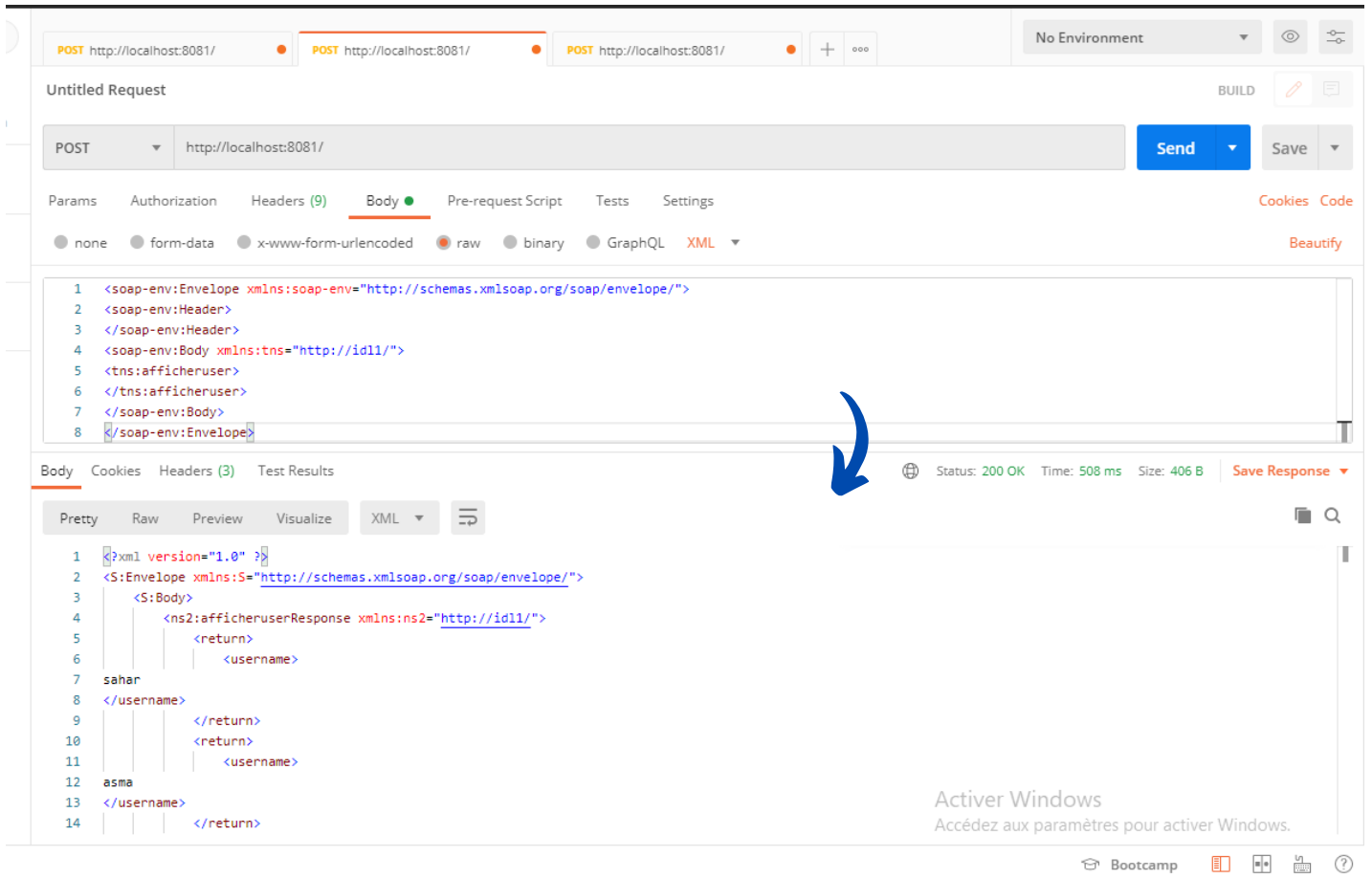
```
User.java  UserController.java  serveur.java  ⌵
1  package idl1;
2
3  import javax.xml.ws.Endpoint;
4
5  public class serveur {
6
7
8      static final String URL ="http://localhost:8081/";
9
10     public static void main(String[] args) {
11         // TODO Auto-generated method stub
12         System.out.println("running on"+URL);
13         Endpoint.publish(URL, new UserController());
14     }
15
16 }
17
```

## 4- Tester sur postman

### Ajouter un client



## Afficher liste des clients



POST http://localhost:8081/

Untitled Request

POST http://localhost:8081/ Send Save

Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies Code Beautify

none form-data x-www-form-urlencoded raw binary GraphQL XML

```
1 <soap-env:Envelope xmlns:soap-env="http://schemas.xmlsoap.org/soap/envelope/">
2 <soap-env:Header>
3 </soap-env:Header>
4 <soap-env:Body xmlns:tns="http://idl1/">
5 <tns:afficheruser>
6 </tns:afficheruser>
7 </soap-env:Body>
8 </soap-env:Envelope>
```

Body Cookies Headers (3) Test Results

Pretty Raw Preview Visualize XML

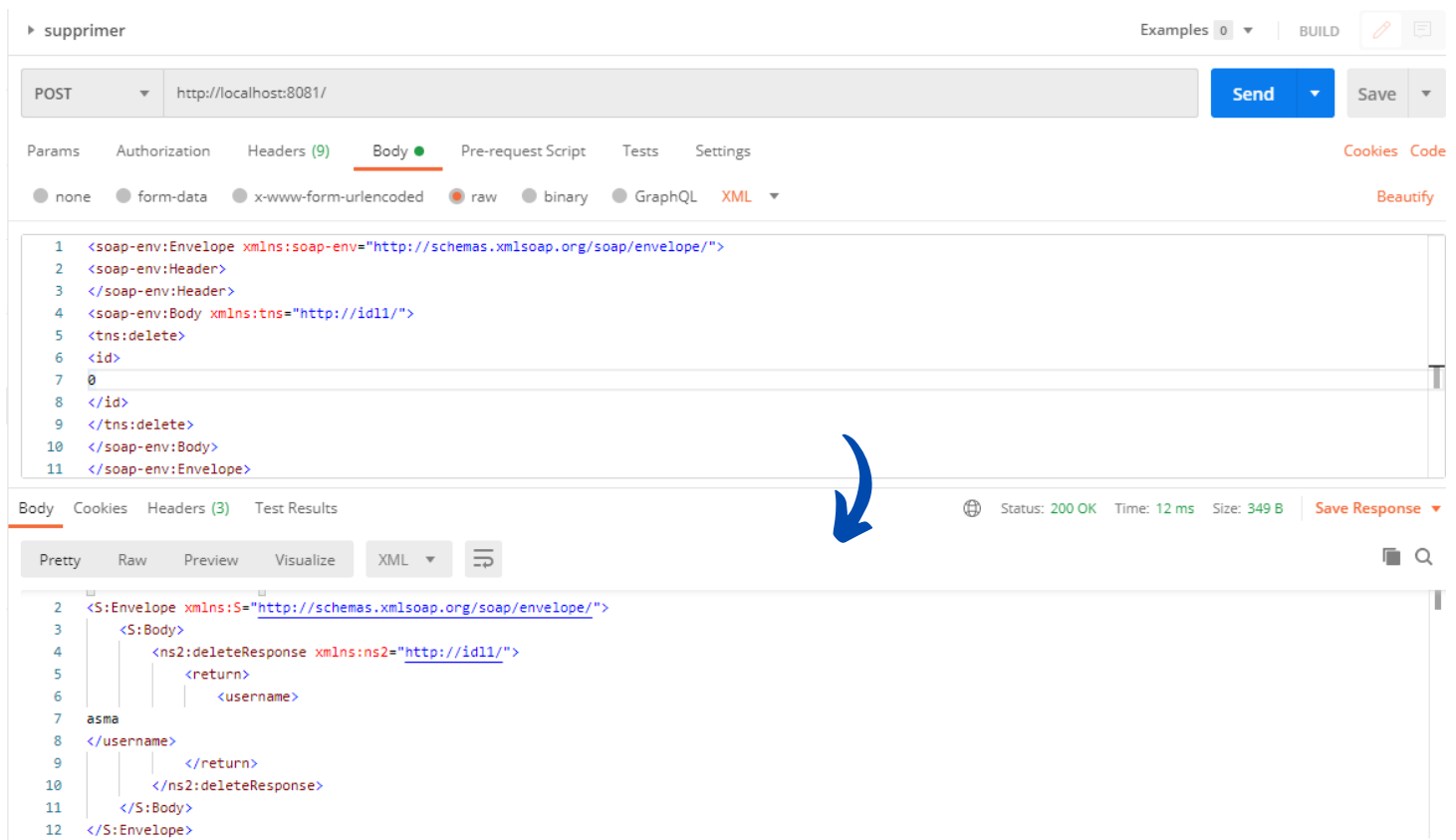
```
1 <?xml version="1.0" ?>
2 <S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/">
3 <S:Body>
4 <ns2:afficheruserResponse xmlns:ns2="http://idl1/">
5 <return>
6 <username>
7 sahar
8 </username>
9 </return>
10 <return>
11 <username>
12 asma
13 </username>
14 </return>
```

Status: 200 OK Time: 508 ms Size: 406 B Save Response

Activer Windows  
Accédez aux paramètres pour activer Windows.

Bootcamp

## Supprimer un clients



supprimer

POST http://localhost:8081/ Send Save

Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies Code Beautify

none form-data x-www-form-urlencoded raw binary GraphQL XML

```
1 <soap-env:Envelope xmlns:soap-env="http://schemas.xmlsoap.org/soap/envelope/">
2 <soap-env:Header>
3 </soap-env:Header>
4 <soap-env:Body xmlns:tns="http://idl1/">
5 <tns:delete>
6 <id>
7 0
8 </id>
9 </tns:delete>
10 </soap-env:Body>
11 </soap-env:Envelope>
```

Body Cookies Headers (3) Test Results

Pretty Raw Preview Visualize XML

```
2 <S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/">
3 <S:Body>
4 <ns2:deleteResponse xmlns:ns2="http://idl1/">
5 <return>
6 <username>
7 asma
8 </username>
9 </return>
10 </ns2:deleteResponse>
11 </S:Body>
12 </S:Envelope>
```

Status: 200 OK Time: 12 ms Size: 349 B Save Response