

## Experiment No. - 3

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Semester: II

Date of Performance: 13/02/25

Subject Name: Software Testing

Subject Code: 24CAH-654

### **Aim/Overview of the practical:**

Demonstrate the process of testing SOAP APIs using SoapUI, a widely used tool for functional, regression, and load testing of web services.

### **Objective:**

The objective of this demonstration is to show how to test SOAP APIs using SoapUI, a popular tool for functional, regression, and load testing of web services. SoapUI allows you to create, execute, and automate tests for SOAP web services, making it easier to validate the correctness, performance, and security of SOAP APIs.

### **Requirement:**

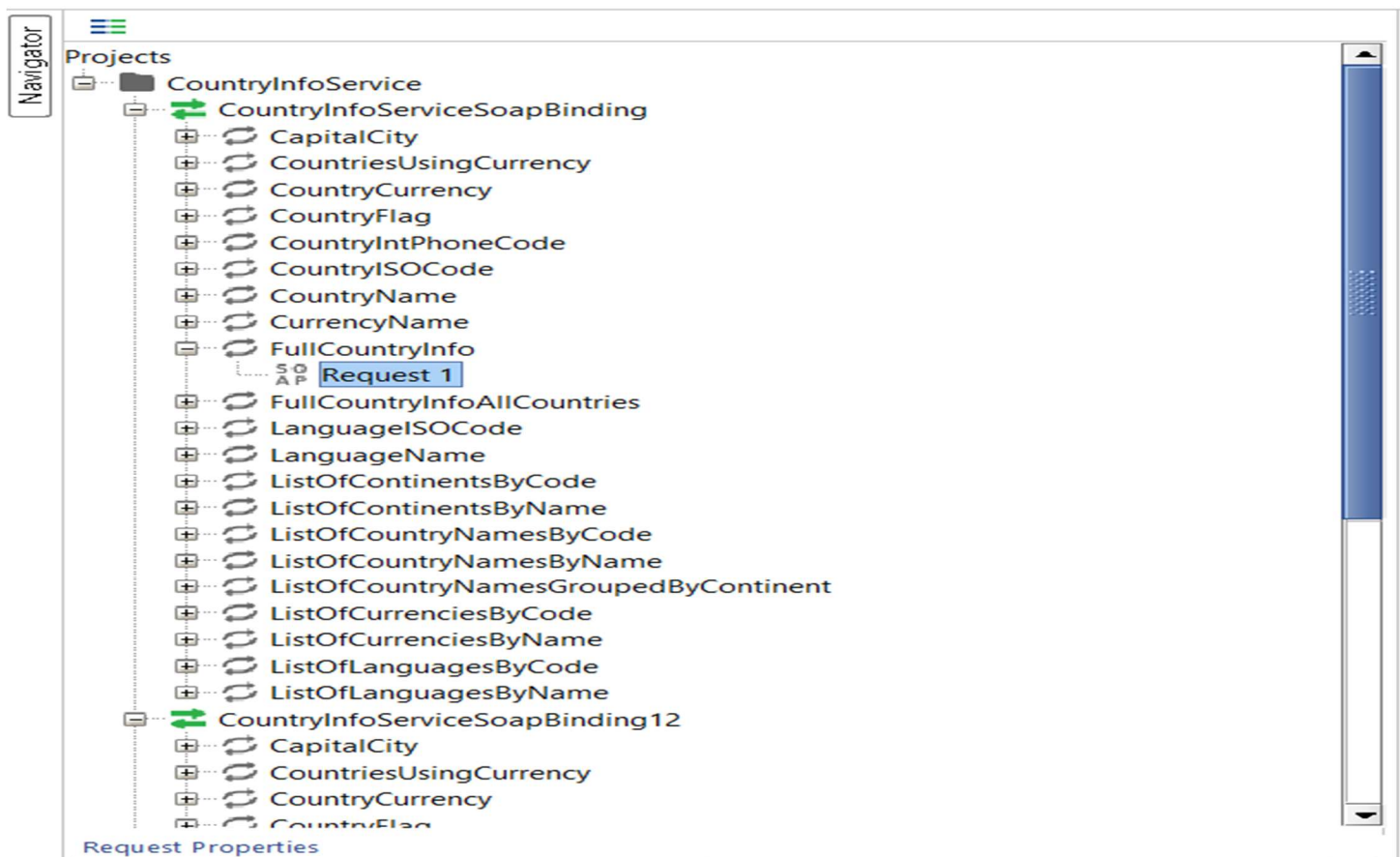
- SoapUI as the code editor.
- WSDL url for testing.

### **URL –**

<http://webservices.oorsprong.org/websamples.countryinfo/CountryInfoService.wso?WSDL>  
Procedure/Algorithm/Code:

## Test Cases :-

<u>TestCase_CapitalCity TestCase</u>	TestCase CurrencyName TestCase
<u>TestCase_CountriesUsingCurrency</u>	TestCase FullCountryInfo TestCase
<u>TestCase CountryCurrency</u>	TestCase FullCountryInfoAllCountries
<u>TestCase CountryFlag</u>	TestCase LanguageISOCode
<u>TestCase CountryIntPhoneCode</u>	TestCase LanguageName



The screenshot displays a SOAP client interface with a 'Navigator' pane on the left and a 'Projects' pane on the right. The 'Projects' pane shows a tree structure of services and methods. The 'FullCountryInfo' service is expanded, and the 'Request 1' tab is selected. The 'Request Properties' pane is visible at the bottom.

**Projects**

- CountryInfoService
  - CountryInfoServiceSoapBinding
    - CapitalCity
    - CountriesUsingCurrency
    - CountryCurrency
    - CountryFlag
    - CountryIntPhoneCode
    - CountryISOCode
    - CountryName
    - CurrencyName
    - FullCountryInfo
      - Request 1
    - FullCountryInfoAllCountries
    - LanguageISOCode
    - LanguageName
    - ListOfContinentsByCode
    - ListOfContinentsByName
    - ListOfCountryNamesByCode
    - ListOfCountryNamesByName
    - ListOfCountryNamesGroupedByContinent
    - ListOfCurrenciesByCode
    - ListOfCurrenciesByName
    - ListOfLanguagesByCode
    - ListOfLanguagesByName
  - CountryInfoServiceSoapBinding12
    - CapitalCity
    - CountriesUsingCurrency
    - CountryCurrency
    - CountryFlag

**Request Properties**

## TestCase Results

TestCase	Status	Start Time	Time Taken	Reason
CapitalCity TestCase	PASS	11:09:46	24 ms	
CountriesUsingCurrency TestCase	PASS	11:09:46	1 ms	
CountryCurrency TestCase	PASS	11:09:46	1 ms	
CountryFlag TestCase	PASS	11:09:46	0 ms	
CountryIntPhoneCode TestCase	PASS	11:09:46	0 ms	
CountryISOCode TestCase	PASS	11:09:46	1 ms	
CountryName TestCase	PASS	11:09:46	0 ms	
CurrencyName TestCase	PASS	11:09:46	1 ms	
FullCountryInfo TestCase	PASS	11:09:46	1 ms	
FullCountryInfoAllCountries TestCase	PASS	11:09:46	620 ms	
LanguageISOCode TestCase	PASS	11:09:47	1 ms	
LanguageName TestCase	PASS	11:09:47	1 ms	
ListOfContinentsByCode	PASS	11:09:47	1 ms	

created with ReadyAPI on Tue Feb 18 11:09:50 IST 2025

### Test case -01 : Fetch details (GetCountryInfo) Code :

#### Operation : GetCountryInfo

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"  
xmlns:web="http://www.oorsprong.org/websamples.countryinfo">
```

```
<soapenv:Header/>
```

```
<soapenv:Body>
```

```
<web:FullCountryInfo>
```

```
<web:sCountryISOCode>IN</web:sCountryISOCode>
```

```
</web:FullCountryInfo>
```

```
</soapenv:Body>
```

```
</soapenv:Envelope>
```

Snap :



OUTPUT :





## Test Case -02 :Fetch details Code : Wrong Input

### Operation : GetCountryInfo

```
<soapenv:Header/>

<soapenv:Body>

  <web:FullCountryInfo>

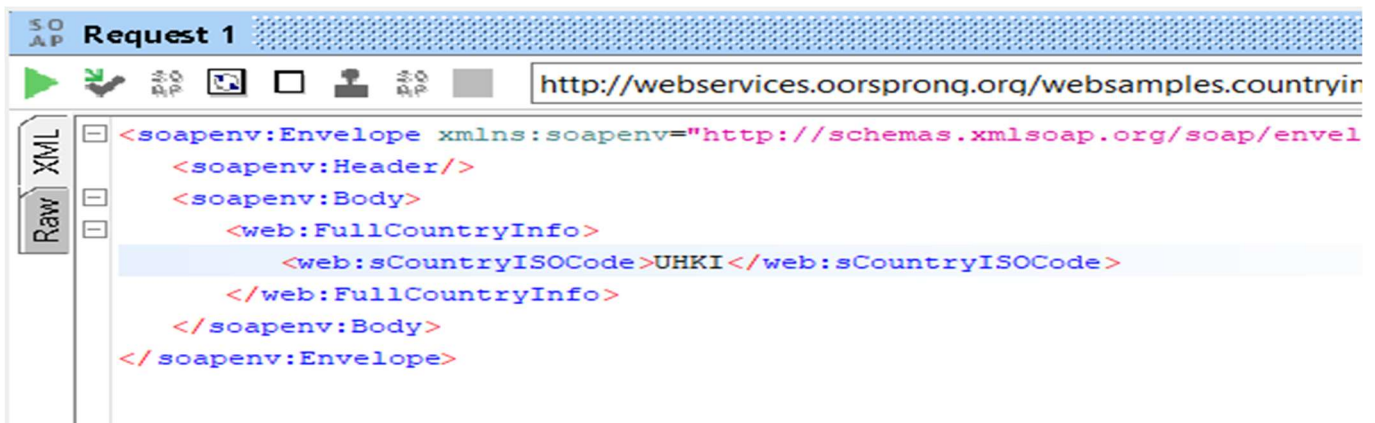
    <web:sCountryISOCODE>UHKI</web:sCountryISOCODE>

  </web:FullCountryInfo>

</soapenv:Body>

</soapenv:Envelope>
```

### SNAP :

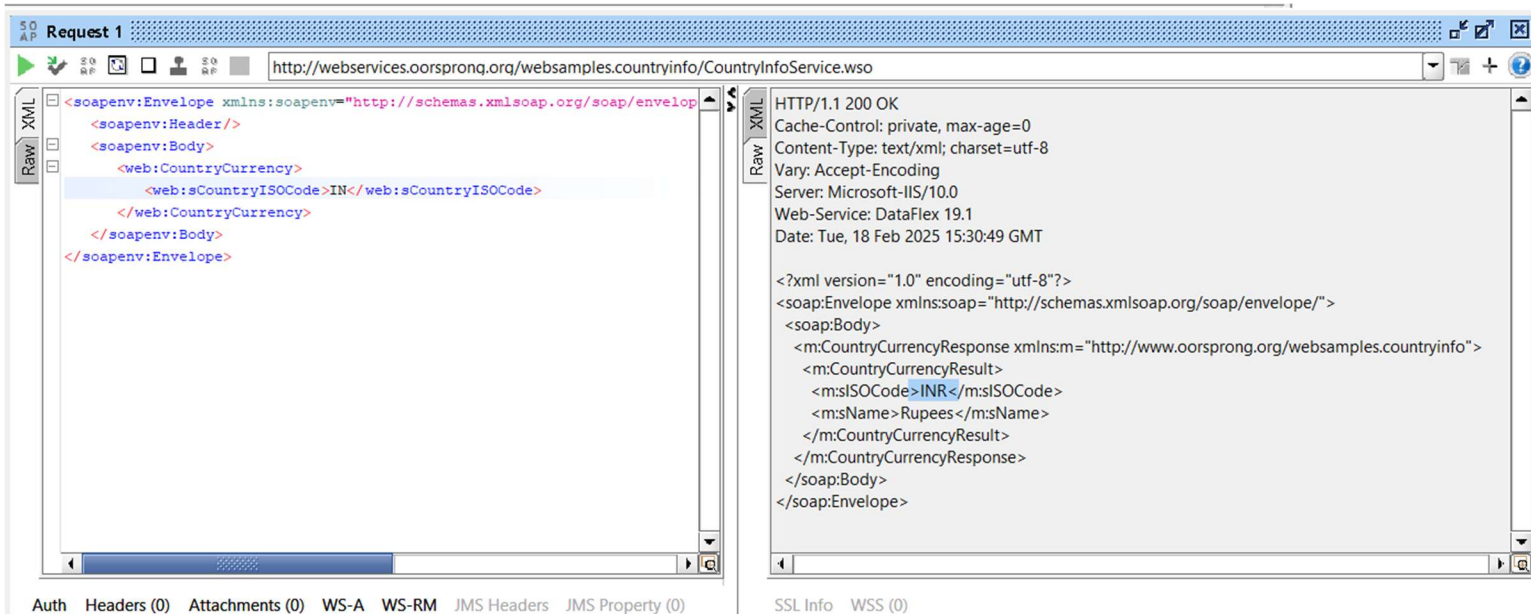


### OUTPUT :



## Test case -03 : Get ISO code of country

### Operation : ISO code



**Request 1**  
http://webservices.oorsprong.org/websamples.countryinfo/CountryInfoService.wso

**Raw XML**

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope">
  <soapenv:Header/>
  <soapenv:Body>
    <web:CountryCurrency>
      <web:sCountryISOCode>IN</web:sCountryISOCode>
    </web:CountryCurrency>
  </soapenv:Body>
</soapenv:Envelope>
```

**Raw XML**

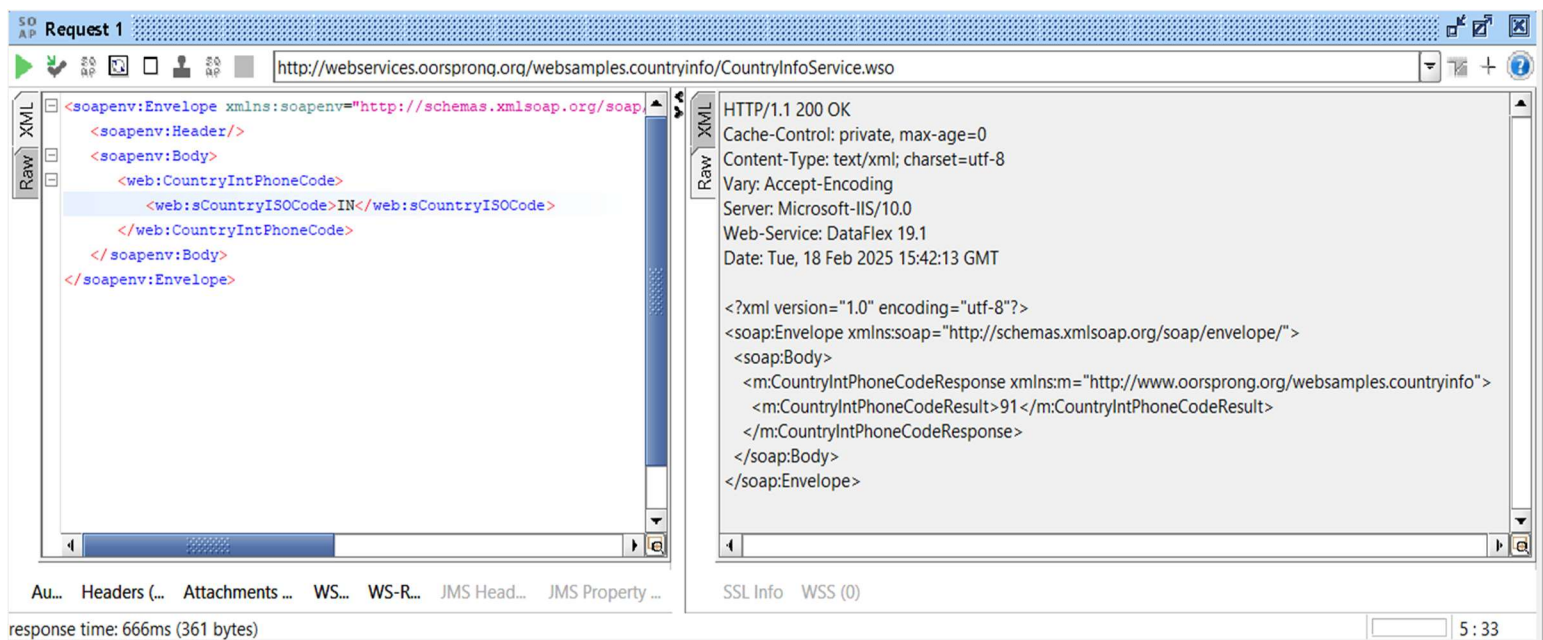
```
HTTP/1.1 200 OK
Cache-Control: private, max-age=0
Content-Type: text/xml; charset=utf-8
Vary: Accept-Encoding
Server: Microsoft-IIS/10.0
Web-Service: DataFlex 19.1
Date: Tue, 18 Feb 2025 15:30:49 GMT

<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <m:CountryCurrencyResponse xmlns:m="http://www.oorsprong.org/websamples.countryinfo">
      <m:CountryCurrencyResult>
        <m:sISOCode>IN</m:sISOCode>
        <m:sName>Rupees</m:sName>
      </m:CountryCurrencyResult>
    </m:CountryCurrencyResponse>
  </soap:Body>
</soap:Envelope>
```

Auth Headers (0) Attachments (0) WS-A WS-RM JMS Headers JMS Property (0) SSL Info WSS (0)

## Test case -04 :Get Country Phone Code Of Country

### Operation : ISO code



**Request 1**  
http://webservices.oorsprong.org/websamples.countryinfo/CountryInfoService.wso

**Raw XML**

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/>
  <soapenv:Header/>
  <soapenv:Body>
    <web:CountryIntPhoneCode>
      <web:sCountryISOCode>IN</web:sCountryISOCode>
    </web:CountryIntPhoneCode>
  </soapenv:Body>
</soapenv:Envelope>
```

**Raw XML**

```
HTTP/1.1 200 OK
Cache-Control: private, max-age=0
Content-Type: text/xml; charset=utf-8
Vary: Accept-Encoding
Server: Microsoft-IIS/10.0
Web-Service: DataFlex 19.1
Date: Tue, 18 Feb 2025 15:42:13 GMT

<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <m:CountryIntPhoneCodeResponse xmlns:m="http://www.oorsprong.org/websamples.countryinfo">
      <m:CountryIntPhoneCodeResult>91</m:CountryIntPhoneCodeResult>
    </m:CountryIntPhoneCodeResponse>
  </soap:Body>
</soap:Envelope>
```

response time: 666ms (361 bytes) 5:33

**Test case -05 : Load test (GetCountryInfo) : 1000 threads**

**Operation : load test.**

**OUTPUT :**

LoadTest 1

Limit:

60

Seconds

100%

Threads:

1.000

Strategy

Simple

Test Delay

1000

Random

0.5

Test Step	min	max	avg	last	cnt	tps	bytes	bps	err	rat
SOAP Request	167	3365	208.63	184	12205	202.72	110089...	182860	0	0
TestCase:	167	3365	208.63	184	12205	202.72	110089...	182860	0	0

Show Types: - All -

Show Steps: - All -

time	type	step	message
2025-02-18 00:29:31.853	Message		LoadTest started at Tue Feb 18 00:29:31 IST 2025
2025-02-18 00:30:31.856	Message		LoadTest ended at Tue Feb 18 00:30:31 IST 2025

2 entries

LoadTest Log

LoadTest Assertions

Setup Script

TearDown Script

### Learning outcome of this testcase

- ☐ SOAP & WSDL Basics – Learned how SOAP works with WSDL.
- ☐ Importing WSDL – Successfully added WSDL in SoapUI.
- ☐ Sending SOAP Request – Tested FullCountryInfo using a country code.
- ☐ Understanding SOAP XML – Modified request parameters in XML format.
- ☐ Interpreting Response – Extracted country details like name, capital, and currency.