

Tutorial: Using PHP, SOAP and WSDL Technology to access a public web service.

**** Created by Snehal Monteiro for CIS 764 ****

In this small tutorial we will access the Kansas Department of Revenue's web service to get sales tax information for a particular area in Kansas. We just send the Zip Code of a particular area in Kansas to the web service and it returns the sales tax for that region.

Pre-requisites:

- 1)The server should support PHP. Since the server for the CIS Department supports PHP scripts, this would not be a problem for us.
- 2)All our html and php documents will be saved in the public_html folder in the U drive.
- 3)A text editor like notepad where we write html and php code.

Tutorial Steps:

There are 4 major steps involved:

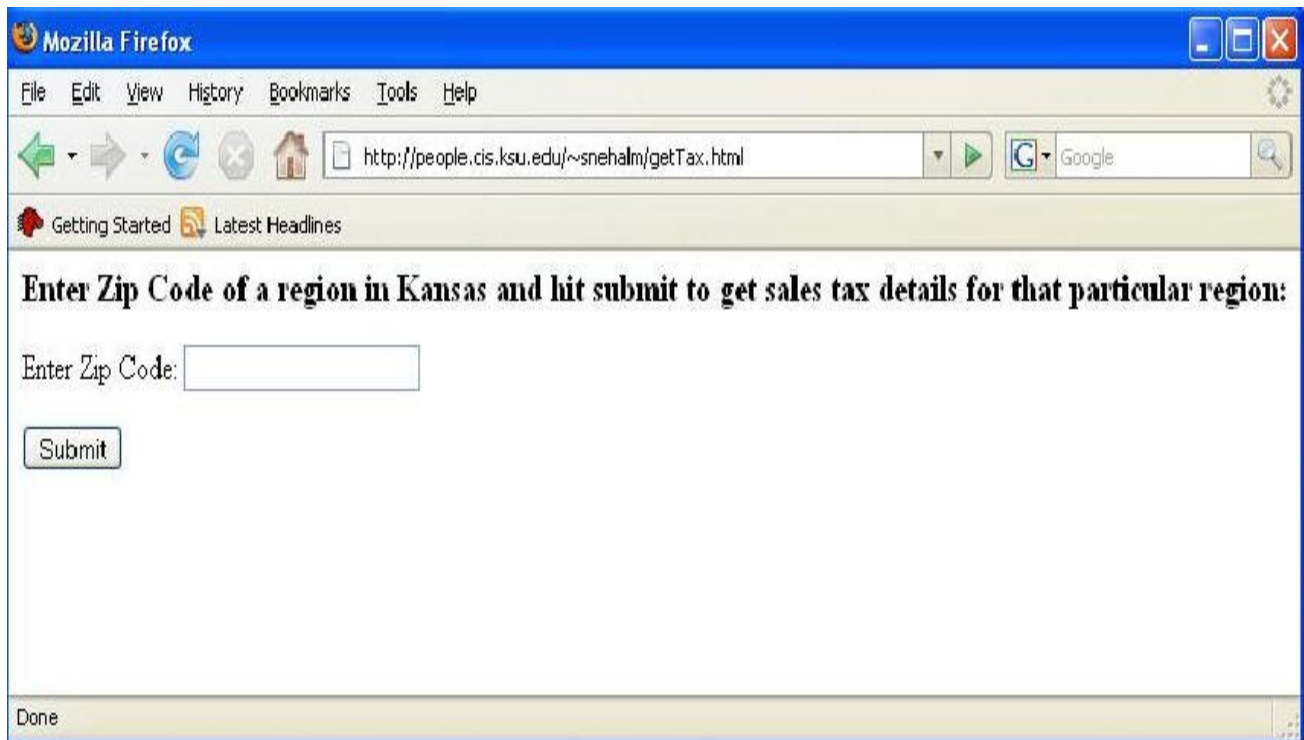
- 1) [Creating a simple HTML page , which has just one text box to enter the Zip Code.](#)
- 2) [Download the nusoap.php document and save it the public_html folder.](#)
- 3)[Create the getTax.php which will access the web service using WSDL\(Web Service Description Language\) file published by the Kansas Department of Revenue.](#)
- 4)[Run the web application.](#)

1)Creating a simple HTML page , which has just one text box to enter the Zip Code:

Copy paste or type the following code in a note-pad and save the file as getTax.html in the public_html folder.

```
<html>
<head>
<title>Get Tax Details</title>
</head>
<body>
<b><font size="4">Enter Zip Code of a region in Kansas and hit submit to get
sales tax details for that particular region:</font></b>
<form name="form1" method="post" action="getTaxDetails.php">
<p>Enter Zip Code:
<input name="Zip" type="text" id="Zip" size="20">
</p>
<p>
<input type="submit" name="Submit" value="Submit">
</p>
</form>
</html>
```

After opening the getTax.html page in the browser you can see the following web page:



2)Download the nusoap.php document and save it the public_html folder:

Here we access nusoap.php which is open-source and available freely. We reference the nusoap.php document in our getTaxDetails.php.

1] Click on this link: <http://dietrich.ganx4.com/nusoap/index.php>

2] Navigate through the web-site. Click on the nusoap-0.7.3.zip file and download it.

3] Unzip the nusoap-0.7.3.zip file.

4]Then open the folder nusoap-0.7.3. Then open the lib folder. You will see many php documents inside the lib folder.Copy the file named nusoap.php and paste it in the public_html folder.

nusoap-0.7.3.-> lib-> nusoap.php

3)Create the getTax.php which will access the web service using WSDL(Web Service Description Language) file published by the Kansas Department of Revenue:

Copy paste or type the following code in note-pad and save the file as getTaxDetails.php in your public_html folder:

----- Code starts here-----

```
<?
# Query the Kansas Department of Revenue and Retrieve Tax Rates

# First, we need to bring in the library file. The require_once command will
make sure the functions are only added once into our script.
require_once('nusoap.php');

#Next step we will define where the WSDL is located and create an instance of
the soapclient class to access the web service.
$wsdl="http://services.taxwatch.biz/rates/kansas/sstp.wsdl";
$client=new soapclient($wsdl, 'wsdl');

$zip = $_POST['Zip'];
```

```

# We then send in two parameters through the SOAP client: the zipcode and date
$param=array(
'intZipCode' => $zip,
'dtPaymentDate' => '2007-10-19'
);

# Finally, the web service responds with the result of our query wrapped in a
SOAP message.
$result = $client->call('GetFIPSBy5ZipOnly', $param);

$FIPSRecordList = $result['FIPSRecordList'];
print_r($result);

$stateGeneralTaxRateIntrastate = $FIPSRecordList[0]['strGeneralTaxRateIntrastate'];
$countyGeneralTaxRateIntrastate =
$FIPSRecordList[1]['strGeneralTaxRateIntrastate'];
$cityGeneralTaxRateIntrastate = $FIPSRecordList[2]['strGeneralTaxRateIntrastate'];

$GeneralTaxRateIntrastate = $stateGeneralTaxRateIntrastate +
$countyGeneralTaxRateIntrastate + $cityGeneralTaxRateIntrastate;

echo "<p>Total General Tax Rate for Zip Code $zip = " . $GeneralTaxRateIntrastate .
'%</p>';

?>

```

----- Code ends here-----

4)Run the web application:

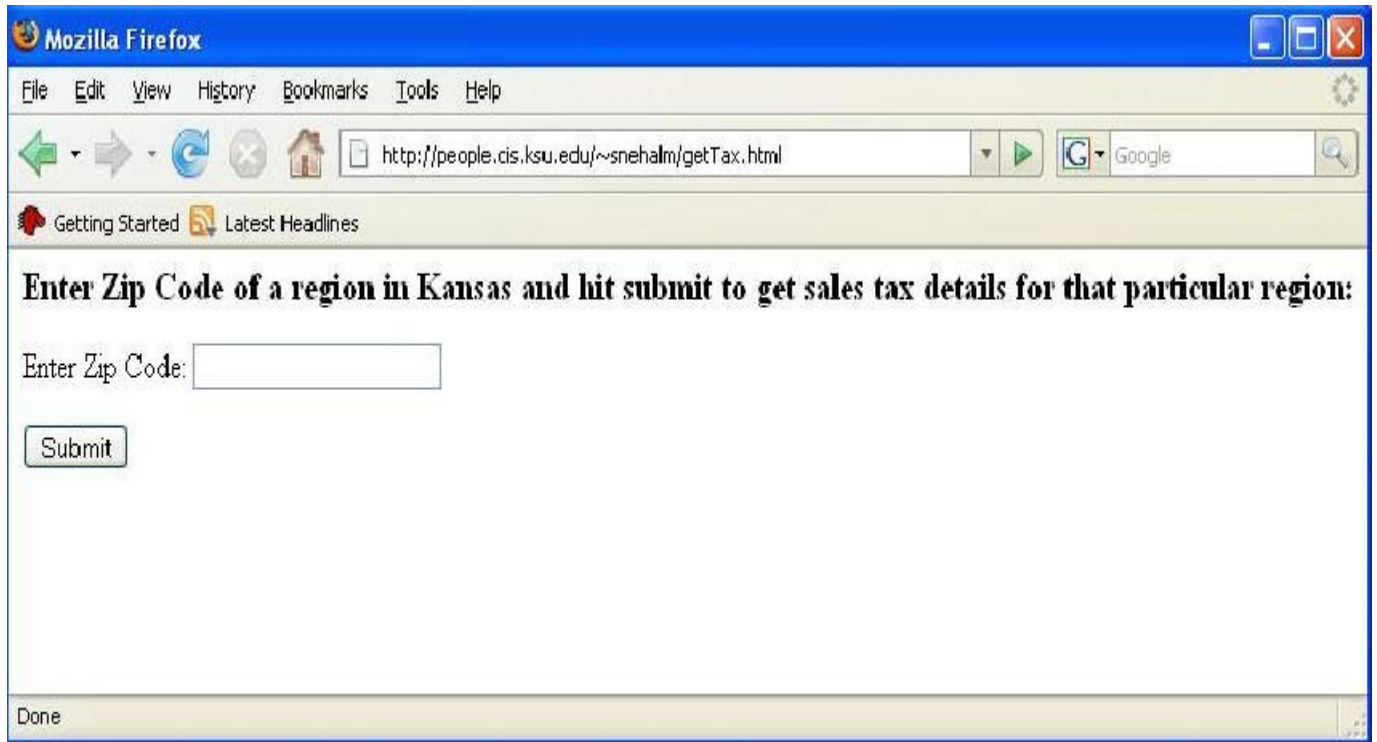
Any files to be accessed by the web server must be publically readable, but none of your PHP files (nor the directory containing them) may be group or publically writable. Following are the commands you can use for setting the permissions in linux:

```

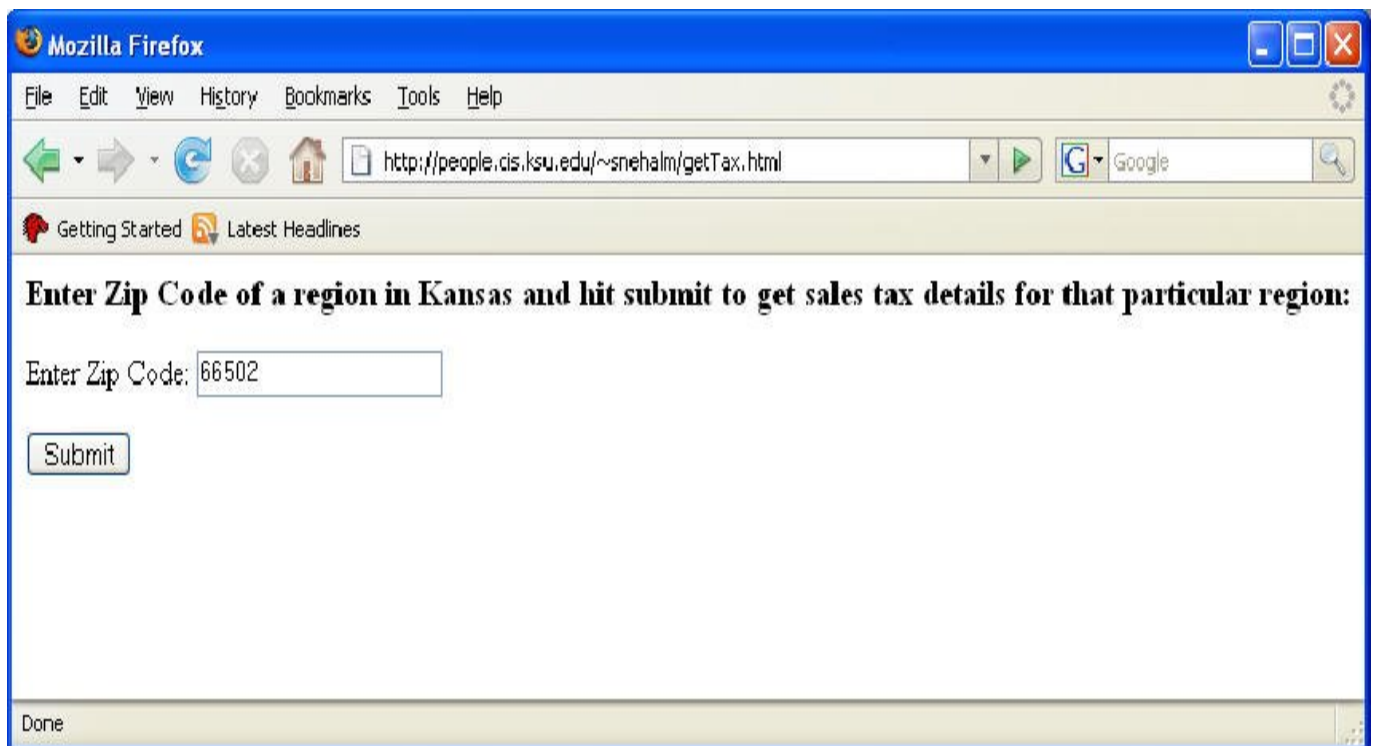
chmod 644 public_html/getTaxDetails.php
chmod 644 public_html/nusoap.php

```

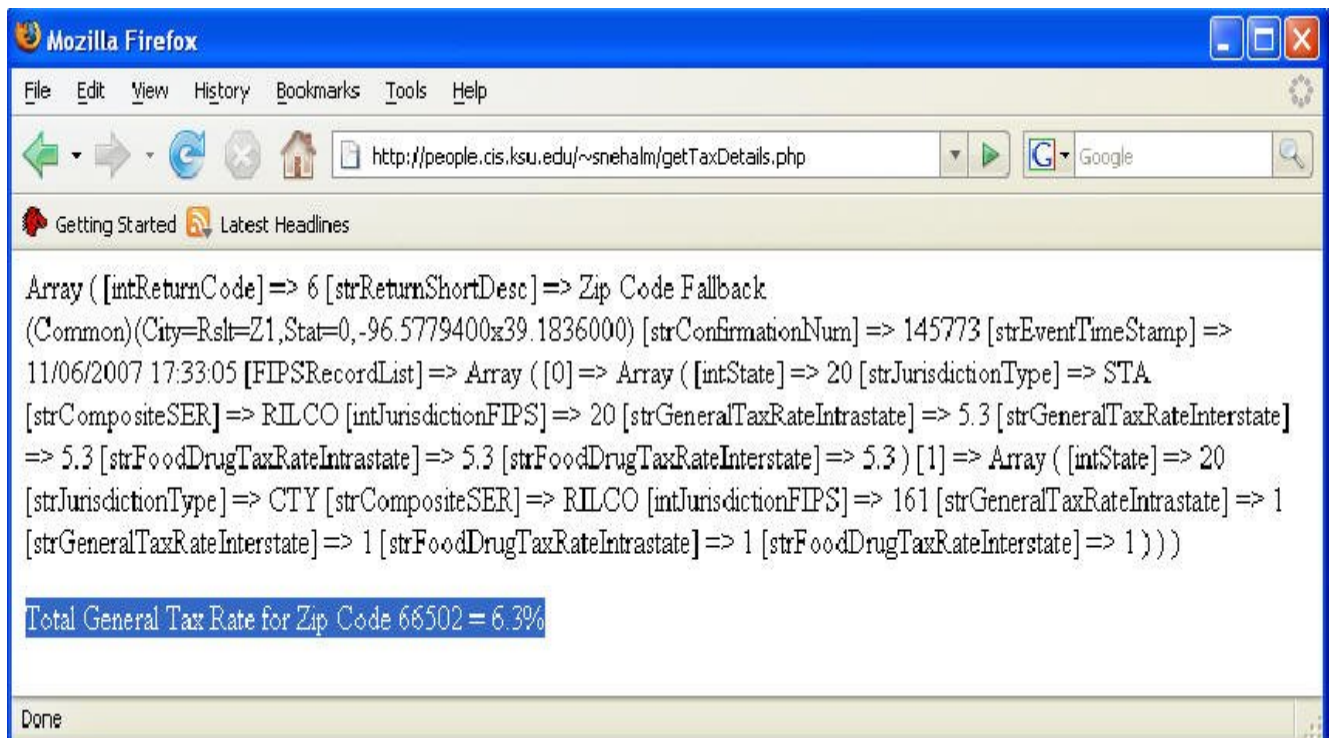
Now type the `getTax.html` URL in your browser. You will see the following page:



Then enter any Zip Code from Kansas in the text box:



Then you hit submit. You should get the following output: The highlighted part shows the Sales Tax as 6.3 % for Zip Code 66502



In this Tutorial we learnt that accessing and using a web-service is very easy.

Key Concepts:

1) Web services allow you to share data across many platforms and hardware configurations. For example, you can create a Java web service and someone else can consume it using a .NET client without having to learn one line of Java code.

2) WSDL stands for Web Services Description Language, an XML file which describes the interface of a web service. We used the WSDL file published by the Kansas Department of Revenue. We observe the parameters in this WSDL and write our php script accordingly.

3) SOAP is designed as an XML wrapper for web services requests and responses. NuSOAP is a powerful API developed for the PHP platform. The required libraries are contained in a file called nusoap.php.

4) In our tutorial we used SOAP (nusoap.php) to access a web-service, which is described as a WSDL published by the Kansas Department of Revenue.

5) Description of the Kansas Department of Revenue web service can be found out at the following link

<https://www.taxwatch.biz/cgi-win/Kansas/TxWStateSite.exe/Lookups>