CEGEP VANIER COLLEGE
CENTRE FOR CONTINUING EDUCATION
Web Services
420-941-VA

Teacher: Samir Chebbine **Lab 4** **Oct 09 2024**

Lab 4: Jersey Client Consuming REST Web Services

Complete all these following programs in class**.** All *missing coding statements* are presented during class time and in Presentation 4.

Create and Submit a Word file ***Lab4WebServicesYourName.doc*** which contains Answers of theory questions if any and output screenshots for every Java EE Project. Submit the Java projects too and submit the whole Lab 4 as compressed zip file

1. Creating Client Maven Project

a) Create a Maven project called **ClientHelloRESTProject**.
b) Add **Maven Project dependencies** as stated in my YouTube Video Lab 4 in **pom.xml**. Create new package called **clientHelloREST** as shown in Figure 1.
c) Run Jersey client project **ClientHelloRESTProject** as Java application consuming REST Web Services **WebHelloRESTProject** of Lab 3.

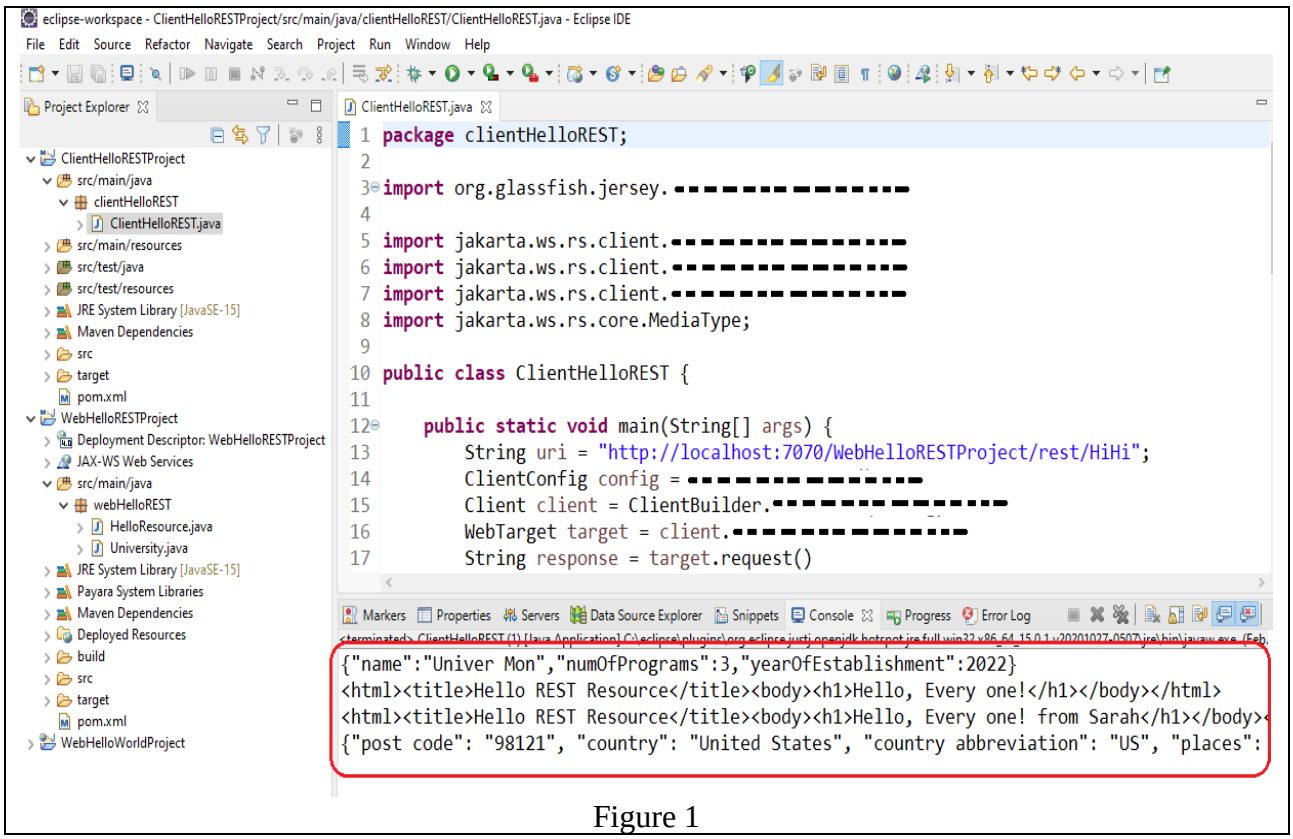

Figure 1

d) Add appropriate statements to consume **one of the public REST Services** you provided in Lab 2. Provide screenshots in word document showing the output as in Figure 1.

2. Maven Project: ClientMathOperationsRESTProject

a) Create a new **Maven project** called **ClientMathOperationsRESTProject**.

b) Add **Maven Project dependencies** in **pom.xml**. Create new package called **clientMathOperationsREST**.

c) Create a console Java Client **ClientMathOperationsREST.java** using Jersey Client Framework to consume the REST Web Service **ClientMathOperationsRESTProject** developed in **Lab 3.** You need to deploy **ClientMathOperationsRESTProject** within GalssFish Server.

d) Add appropriate statements in Java Client to invoke the REST resource using **query string parameters** `x, y, z` that calls implemented methods `calculateSum()/calculatePrd()` in path URL mapping ("MathOp"), display media type HTML as shown hereafter.

e) Add appropriate statements in Java Client to invoke the REST resource using path URL mapping ("/displayListZYZ…"), include appropriate media type and display the output as shown hereafter.

f) Add appropriate statements in Java Client to invoke the REST resource using path URL mapping ("/OpHashMap …") using path parameter x as search parameter to access REST resource searching into Hash Map, include appropriate media type and display the output as shown hereafter.

```
<terminated> ClientMathOperationsREST [Java Application] C:\eclipse\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_15.0.1.v20201027-0507\jre\bin\javaw.exe (Feb. 20, 2024, 2:29:0
Please Enter x: 1
Please Enter y: 2
Please Enter z: 3
<html><title>Hello Math Op Resource</title><body><h1>Calculate (x+2*y+3*z) Output is: 14.0</h1>
                                    <br/><br/><h1>Calculate (x*2*y*3*z) Output is: 36.0</h1></body></html>


<html><title>Hello REST Resource</title><body><h3>listXYZ Array List:<br/> Array List Element: 0:
              MathOp [x=1.0, y=2.0, z=3.0]<br/> Array List Element: 1:MathOp [x=4.0, y=5.0, z=6.0]
              <br/> Array List Element: 2:MathOp [x=7.0, y=8.0, z=9.0]<br/></h3></body></html>

Please Enter x for search into HashMap Collection: 7
{"x":7.0,"y":8.0,"z":9.0}
```