DA376E - Lab #2

INSTRUCTIONS

This assignment consists of one task. This is an individual assignment. The lab will be graded pass or fail.

TASK 1 – CLOUD CALCULATOR

This lab assume that you already have a free Heroku account that you did the initial setup for in lab#1.

Use node.js with express as I did on lecture 6 and create a simple backend. The backend shall be able to handle a HTTP Get request "calc" that has the following parameters:

- operation (add, sub, div, mul)
- numberone (Integer)
- numbertwo (Integer)

Implement the following function in your backend

- If the operation is "add" then the backend shall respond back with numberone + numbertwo

- If the operation is "sub" then the backend shall respond back with numberone - numbertwo

- If the operation is "mul" then the backend shall respond back with numberone * numbertwo

- If the operation is "div" then the backend shall respond back with numberone / numbertwo

To test your "backend" locally you can use the browser and send for example the following request to test it.

http://127.0.0.1:3000/calc?operation=add&numberone=3&numbertwo=4

The backend shall respond back with "7".

http://127.0.0.1:3000/calc?operation=sub&numberone=8&numbertwo=4

The backend shall respond back with "4"

http://127.0.0.1:3000/calc?operation=mul&numberone=3&numbertwo=4

The backend shall respond back with "12"

http://127.0.0.1:3000/calc?operation=div&numberone=8&numbertwo=4

The backend shall respond back with "2"

Now deploy the backend on Heroku Cloud and leave it running until it has been graded.

Based on my lecture 6 Java-program. Modify it and create a simple java program that will send some requests towards your calculator backend on the Heroku Cloud and test that it is working and Is responding back with the correct answers. You don't have to make any fancy GUI just simple console application. You can use the requests above to test. Don't forget to use the URL for your application on the Heroku Cloud and not the local host ("127.0.01").

As an alternative to the Java-client you can create a simple test-program in any programming language that will send requests towards your deployed Cloud calculator.

- Create an archive of your source code and include both the code for the backend and the console application. **Do not include the directory "node_modules".**

EXTRA CHALLENGE (NOT MANDATORY)

Implement a GUI/frontend instead of console application to test your Cloud calculator.