CSU4400 Internet Applications

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Laboratory 1 – Simple Javascript & Promises

The objective of this laboratory session is to get students started writing simple Javascript programs in both Node.JS and Browser environments. The 2nd part of the excise will involve the simple use of the “promise” construct.

Part 1 – Using the Tools in Server (Node.js) and Client (Google Chrome) Environments

1. Fire up the preferred Javascript Editor – Microsoft VS-Code. Write a simple program that counts down from 25 to 0 – printing out the countdown clock as it goes using console.log ( 25..20..15 etc)
2. Run the program standalone using Node. Js – bring up a windows console and run “node”
3. Use the Debug feature of VS-Code to set a breakpoint in your code and stop and inspect some variables
4. Using your working Node.js code as a template – write a 2nd program to do the same thing by targeting running in a web browser. Save the code in a .html file with Javascript enclosed in <script> tags
5. Using Google Chrome Developers tools – load the page into the browser – invoke…More Tools…Developer Tools
6. Inspect the code – set a breakpoint in the Chrome Debugger; inspect a few variables
7. Modify the browser code so that it writes the result (35..30..15 )to the webpage via the DOM

Part 2 – Experimenting with Promises

1. Modify the code you produced in part 1 to introduce a space of 5 seconds in between the countdown digits (25..<wait for 5 seconds>..20…<wait for 5 seconds> - start this a console.log and move to a Browser Compatible version
2. Modify the above code – browser version – so that when the countdown reaches 0 – the user is prompted “Do you want to go again” – use the built-in ‘confirm’ function to prompt for this

Final Act:

In future exercises, you will need to access Cloud Computing resources and the Amazon Web Services (AWS) console. TCD have been generously supported by grants of free academic credits through the AWS Educate programme. We use a 3rd party provider to help up manage this credit for our students. They login via this third party provider and are then given access to the AWS console with an initial allocation of credit.

In order to prepare for this in CSU4400 – we ask you to Register on <http://tcd.rosettahub.com> – provide your personal details to them – enter Entity of “SCSS-BA” or “SCSS-BAI” as appropriate. They will in turn register you with Amazon Web Services. Please attempt this registration before you leave the lab.