Department of Mathematics and Computing Science
CSCI 3430.1 - Principles of Programming Languages

Assignment #10 (the last of the last - at last)

Assigned : 20 November, 2017
Due : 28 November, 2017

Please add all source code into one big zip file and post that to Moodle, it won't take more than **ONE** file. If it's too large to upload to Moodle, you likely have more than source code. If you are still stuck and can't upload the file, email it to me, cc to yourself then see me in class.

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1. (5 pts) Write the Pong game in any other language than VB or C#. Options include shell scripts, java, javascript, TCL, python, ruby, prolog, or even something really old like FORTRAN.

2. (5 pts) Write code that demonstrates one computer language calling and receiving data back from another language. At the risk of repeating, the caller must be one language, the receiver a different one. The first language reads three integers from the user (A, B, C) and passes them as binary values to a **separately compiled** function written in a different language. That second function divides the first number by the second and subtracts the third (A/B-C), then returns the result to the caller as an integer. That first language then prints the integer it received from the second language out to screen. One language or the other must check and prevent or trap for division by zero.

   You can use any method of inter-language static or dynamic linkage or inter-process communications (**CORBA**, **ZMQ**, **DCOM, Twisted, Node.JS, dynamic linking**. **static linking**, **C++ DLL**, **RPC**, **JNI** etc). The two parts must be distinctly different languages and both parts supplied in source code format (for example VB calling unmanaged native C/C++, Python calling C, C# calling C++, C calling Pascal, Python calling Java, Python calling C, Java calling Pascal, LabView calling a DLL, etc). **Please do not use javascript, HTML or something calling Assembler (that's just way too easy)**. Please identify which versions of the languages, compilers, operating systems and developer environments you used.