CSCI 1320 Computer Science I: Engineering Applications – Fall 2018
Instructor: Zagrodzki
Lab 5
Due Friday, October 12, by 6pm

Sound Effects and Analysis Tool: Pseudocode and Skeleton Code

In this week's assignment you will be creating an audio effects and analysis tool. For the lab, you need to create a skeleton code that will serve as your template for the assignment. As exemplified in lecture, a skeleton code is MATLAB program that contains the main script as well as all the function calls needed for the final program. You do *not* need to have your actual functions implemented at this point. Instead, you should have function stubs. A function stub can be called with the expected (or simulated) inputs and it returns an output that *looks* like the intended output, but dummy (or simulated) data is used at this point.

At this point find the Assignment 5 write up and read through it carefully

The aspects of your program that should be functional by the time you finish the lab:

1. Graphical User Interface using the MATLAB *menu* function. Make sure you use a *while* loop so that your GUI stays active until the user decides to exit.

2. Have your 3 function stubs (`soundEcho, compress, fftBar`) that get called with dummy variables (correct number of input and output arguments as well as correct data types.)

3. Inside each of your function files, use comments to write pseudocode for each function's actual algorithm. A function stub should look something like this:

```
function sumOf3 = sumOfThreeNumbers(x,y,z)
   % THIS IS A FUNCTION STUB RETURNING DUMMY DATA
   % 1) Verify that x,y, and z are numerical scalar variables
   % 2) sum the numbers together
   % 3) output the sum
   sumOf3 = 8; % DUMMY data.
end
```

Submitting the assignment:
Make sure your m-files are well commented and include in the header your name, student ID, course number, lab number and recitation section. Submit the files in as a zip-file through Moodle as Lab 5 by due date.