**Number Converter**

**Project Design**

* While Loop the menu
  + Display conversion type choices
  + Get user choice of conversion type
    - If 1 (decimal to hexadecimal)
      * Get user decimal input value (WORK IN PROGRESS)
      * Convert decimal to hexadecimal (WORK IN PROGRESS)
      * Print decimal and hexadecimal (WORK IN PROGRESS)
    - If 2 (decimal to octal)
      * Get user decimal input value (WORK IN PROGRESS)
      * Convert decimal to octal (WORK IN PROGRESS)
      * Print decimal and octal values (WORK IN PROGRESS)
    - If 3 (decimal to binary)
      * Get user decimal input value to be converted to binary (WORK IN PROGRESS)
      * Convert decimal to binary (WORK IN PROGRESS)
      * Print decimal and binary values (WORK IN PROGRESS)
    - If 0 ( I changed to 0 for now to make the same data type with the user\_input)
      * Exit program

*Early Submission Current Progress:*

I have finished writing the menu program. The number conversion is the hard one and I left it for the end of the assignment. However, the menu was the easy part to code. I implemented if statements and while loops so that the user input be valid thro the menu. I think I will add a do-while loop once I finished the program so the menu repeats until the user wants to quit. I haven’t done the conversion section because of matter of traveling and time. Also, I have to watch some videos how the conversion works because I don’t quite remember how, and then translate these processes to code.

I have finished writing most of the program. I think there might be something wrong with the way I implemented while loops. I wrote the binary conversion section first and debugged it separately from the rest of the program, and it worked well. I added it into the larger program and encountered runtime errors. Now even if I try to run the binary conversion section by itself it does not finish running, even though it work perfectly. I might have too many while loops?

**Test Cases and Screenshots**

**Learning Experience**

* I did not encounter any issues so far

**Assumptions**

* The user will choose an integer number to choose a type of conversion
* The user will enter an integer in the range of 0 and 1024
* The user will enter an integer in the range of 0 and 256 for binary conversion