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This reflection is to be completed individually, although consultations with TAs and classmates are encouraged as long as they are appropriately acknowledged.

This assignment, number 14, is designed for you to work with a C++ program that uses recursion to print the digits of a number in a new base, creating a Python version of that program.

This reflection document is intended to help you think about (1) some of the surface level differences between C++ and Python versus some of the fundamental similarities between the two languages and (2) the structure of a recursive function in solving a problem. To start, describe what is used in C++ to define the beginning and end of a block of code, one advantage and one disadvantage of that strategy.

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| 1. Description:   It is defined by curly barites. To start a block of code in C++ one must state the main function. To create a main function you must state the type then after give the function its name then you have to use an open curly bracket which tells the computer that the code starts here and continue until the a closed bracket which tell the computer to stop reading.   1. Advantage:   Because the computer can clear tell what to read. This is because the computer only has to worry about if it is inside the brackets or not.   1. Disadvantage:   It is confusing to read the code as a human. As a human it can confusing if there are many lines of bracked code because it is not clearly visible to see. |

Explain why the recursive function *printDigits()* does not work correctly when number of be converted is negative.

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| It because printDigits recursion process keeps dividing the number by the base until it reaches a number between the zero and the base. Which mean if the base became a negate value because of the assert (base > 1 ) it will error message. |

The recursive part of the *printDigits()* function has the recursive function call before the statement to output the digit at that particular point. What happens when these two lines (numbered 31 and 32 in the C++ version) are reversed? Briefly explain why this happens.

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| The program error messages because the code “cout” the variables which cause the program to freak out because the module operate turn the variable into floats and function parameter call ints and so C++ errors messages. |

Describe the pseudocode for an iterative version of this function. *Hint: you have encountered a version of this algorithm before*.

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| The pseudoocode for the iterative version of this function needs to be called if the base is not great than the num. It then needs to be printed out and the same function called again so that if can do the same check and print again. The program needs to do this process to find the answer to the division. |