

EGRE 347 Applied Object Oriented Programming

Homework #7 – Programming with Python

This homework must be your own (individual) work as defined in the course syllabus and discussed in class.

For this homework, you will program a solution for the problem presented in either homework #1 (the parts catalog), or homework #5 (the GPS parsing state machine). For both solutions, you need to code all of your functions in a separate file from your calling program that you run with the Python interpreter.

- 1) If you decide to implement the solution for homework #1, you must meet the following specifications:
 - Utilize a separate function to read the catalog information from the catalog text file.
 - Prompt the user for the name of the catalog text file and exit with an error message if the file does not exist.
 - Print the catalog exactly as it was read from the file
 - Prompt the user if they want to sort by part number, price, or supplier
 - Print out the sorted catalog

Note that for the Python solution, you do NOT have to store the information in a 2-level data structure as the C/C++ implementation did (i.e., a struct within a struct)

- 2) If you decide to implement the solution for homework #5, you meet the following specifications:
 - Read the characters from the file a single character at a time
 - Utilize separate function to implement the state machine that parses the GPS messages
 - Print out the result of the message parsing the same as required in homework #5 for input files gps1.log, gps2.log, and gps3.log

Note for this assignment, you must print out the checksum read in from the file, but you do NOT have to calculate the checksum of the message itself to compare with that read in. You can ignore the checksum error in the gps2.log file.

For this assignment, you must turn in a git bundle file (hw7.bundle) with all of your Python source files. Turn in your assignment by attaching the git bundle file to the assignment submission page.

Remember the class policy on late submissions – no late submissions are allowed unless prior arrangement is made with the instructor.