SENG1050 – DATA STRUCTURES

MAJOR ASSIGNMENT 3 - USING THE MULTIMAP STL CONTAINER

OVERVIEW

- Rewrite assignment #1 to use a multimap STL container instead of the linked lists.
    - You should use your code for Assignment 1 for this (but you are not required to do so) but you will have to remove **all** code that is not relevant to this assignment.

OBJECTIVES

- Use the multimap STL container.
- Use common algorithms to enhance software development.
- Use best practices to effectively produce quality software.

ACADEMIC INTEGRITY AND LATE PENALTIES

- Link to Academic Integrity Information
- Link to Late Policy

EVALUATION

- The evaluation of this assignment will be done as detailed in the Marking lecture in Week 2 of the C course.

PREPARATION

- Complete Major Assignment 1 to stated requirements.

REQUIREMENTS

Changed Requirements

- Your code must work to the requirements of Assignment 1 (with the exception of linked list-related requirements and the storage of the strings).
- You must use the multimap STL container instead of a linked list.
    - Do not start this assignment until you have learned about the multimap container.

- Instead of storing the destination and date as pointers to char which are allocated using malloc, store them in C++ string objects.
- The fare must still be stored as a floating-point value.
- Do not hand in any linked list code. It must be removed completely from your source code files. Don't even mention linked lists in your comments.
    - Yes, I will be searching for any mention of linked lists in your source code.

GIT REQUIREMENTS

- Use GitHub Classroom for revision control, similar to Focused Assignment 2.

CHECKLIST REQUIREMENTS

- Create a requirements checklist. This should contain the specific requirements from this assignment as well as any relevant requirements that have been covered in lecture or that are found in the SET Coding Standards or SET Submission Standards. Do it in whatever form you wish. Hand in your completed checklist in PDF form as checklist.pdf. Not having this checklist will result in a cap of 80 on your mark.
    - Yes, it is possible that this checklist could be very short.

FILE NAMING REQUIREMENTS

- You must call your source file m3.cpp.
- You must call your checklist checklist.pdf.

SUBMISSION REQUIREMENTS

- Do not hand in any other files.
- Submit your files to the *DS: Major Assignment 3* Assignment Submission Folder.
- Once you have submitted your file, make sure that you've received the eConestoga e-mail confirming your submission. Do not submit that e-mail (simply keep it for your own records until you get your mark).