ICS 340 Programming Project, Deliverable C

Specification:

Start with your Java program "prog340", it should be working for Deliverable A and B.

Using Prim's Algorithm, create a minimum spanning tree of the graph, starting from the node with value "S". Break ties alphabetically by name. Your graph is guaranteed to be connected.

Print the included edges as well as the total cost of the MST.

As will always be the case in this class, the program must be written in Java and must run on the University Windows computer systems.

Submit the package to the open Deliverable C submission folder.

Output:

Please see the test files and corresponding output files in D2L under Deliverable C/Test Files. Note that Test File c0 is the same graph as the example worked in the slides and Test File c1 is the same graph pictured in the class exercises.

Submit:

Submit your code as an Eclipse package, or submit all the ".java" source files in a zipped archive. You must submit to the "Deliverable C" dropbox in D2L. The time of submission is the time that D2L lists the file as submitted. If there are multiple submissions, the last submission is the one that is graded.

Grading:

This deliverable is worth 60 points: Correctness will be assessed for 5 files, including both of the test files provided. You will get 10 points for each correct test file and 5 points each for regression testing of Deliverables A and B. **If Prim's algorithm pseudocode (as discussed in class and presented in slides) is not clearly visible in your code you will get 0 points for this assignment (including the check-ins).**

Due Dates:

The program must be submitted on or before the due date listed in the class schedule.

You may resubmit up to one week after the due date provided the following conditions are met:

- You made significant progress in the original submission. (At least 50%)
- You clarify what mistakes were made and the steps you took to correct them. This can be in a separate (word or pdf) document, or it can be included as comments in the code.