CSCD 240

Lab 7

Dynamic Arrays/Files

PROGRAM SPECIFICATIONS

Meteorologists love to keep statistics on the weather. They often tell us the maximum temperature for some date, or the minimum value for some date, or even how long it has been since Spokane experienced a 60-degree day. Your task is to use dynamic arrays to provide similar statistics.

Your task:

• Your data will come from a file named temps.txt. The provided starter code prompts the user for the filename.

• The first line in the file will contain the number of days to be read

• The file will then contain that number of entries for the number of days, one per line.

• Create an array of the exact size needed

• Fill the array with the values from the file.

• Repeatedly display the menu that has the following choices:

1) Find and display the max temperature

2) Find and display the min temperature

3) Find and display the mean (average) temperature for the month

4) Find and display the median temperature for the month

6) Allow the user to load a new file

7) Quit

You must range check menu entries (menu choice must be a valid menu option)

The starter code called cscd240Lab7.c is provided. Do not change this code.

Stubbed-out (i.e. starter) methods are provided in lab7.c and fileutils.c. You will need to add your own code to other methods.

TO TURN IN:

A zip file named your last name, first initial, course name and section, LAB7 (example: JOHNSONSCSCD240001LAB7 that contains:

• All code required to compile and execute your program (both the code written by you and the provided starter code)

• A valgrind run showing that memory is not leaked, named cscd240lab7val.txt

• A single output run of your program named cscd240lab7out.txt