**[Lab1](http://courses.washington.edu/css342/zander/Labs/lab1s14.pdf)   
    Part 1, Part 2   due Wednesday, Apr 9,   10:30pm   
    Part 3   due Wednesday, Apr 9,   5:45pm (in class)**   
    Part 3 clarification: all questions refer to turn-in code   
    (not when you ask me questions as you develop your code).   
*There is no pair programming on this assignment*   
The main to use with your lab1:     [lab1.cpp](http://courses.washington.edu/css342/zander/Labs/lab1.cpp)     
Sample data file (does not thoroughly test your code):     [data1.txt](http://courses.washington.edu/css342/zander/Labs/data1.txt)   produces   [this output](http://courses.washington.edu/css342/zander/Labs/lab1output.txt)   
  
**Hardcopy turn-in:**   just the file lab1.cpp   
Turn in during lecture or at my office, UW1-353.   
If you turn in a hardcopy at 5:45pm and only make small changes after that time, that is fine.   
      -- Use no cover page.   
      -- Use a non-proportional font (e.g., courier new, 10pt).   
      -- Print in portrait mode on one side of the paper (no code wrap).   
          You will lose one point for every line of code/comment beyond 80 columns until you drop one whole grade.   
      -- Hand write your name and UWNetID in the upper right-hand corner.  
**Electronic turn-in:**   (2 files, not a zip, not in a folder) -- source code (must be all lowercase filename)   
called lab1.cpp and the typescript file   
      -- Test your program with different data files to make sure it works correctly under all situations.   
      -- Make sure the file name is named correctly:   ifstream infile("data1.txt");   
      -- Submit as many times as you wish; only the final submission before the deadline will be graded.   
You will compile and run the code on our linux machines to obtain the typescript file.   
  
**Obtaining software to transfer files and for a terminal window**   
You need two different software applications: one to transfer files and the other to get a terminal window to compile, etc. Any software will do. Here are the ones used in the CSS labs:   
**Secure File Transfer software:**   use software links from the   [UW IT Connect page](http://www.washington.edu/itconnect/security/securing-computer/).   
    Use WinSCP if you have a windows machine.   
**Secure Terminal Window:**   use either the [latest version of TeraTerm](http://www.ayera.com/teraterm/) (NOT UW's) or [putty](http://www.chiark.greenend.org.uk/~sgtatham/putty/)   
  
**Obtaining lab1 output on our linux machines**   
To log onto the linux machines in UW1-320 remotely, use the secure file transfer program you installed with the host address   
      uw1-320-lab.uwb.edu   
Use your UWNetID and password to log in. Transfer your .cpp file to the linux machine.   
You can find more information at [Lab 320 Linux Guide](http://www.bothell.washington.edu/css/facilities/unix).   
Here are some [basic unix commands and information](http://courses.washington.edu/css342/zander/Notes/basicunix)   and detailed instructions on   [how to transfer files and compile under linux](http://courses.washington.edu/css342/zander/linux).   
  
Now use the secure window terminal software you installed, same host machine: uw1-320-lab.uwb.edu   
Again, use your UWNetID and password to log in. Compile with the command   
      g++ lab1.cpp  
If g++ compiles successfully, a file called a.out is produced. To run it, enter   
      ./a.out   
The "./" says to use the one in this directory. If you get errors, edit on your local machine and upload and compile again. The data1.txt file must be in the directory with your lab1.cpp.   
  
**How to create the typescript file of your output (on our linux machines remotely):**   
Do this when you are completely done. The lab1.cpp and data1.txt have been uploaded to our linux machines.   
To produce a file of your output, enter the following. If you mess up, **stop** (enter Ctrl+d), and start over.   
      script  
      g++ lab1.cpp  
      ./a.out  
      Ctrl+d  
The "script" command captures everything displayed at the screen (until Ctrl+d is entered) into   
a file called typescript. (Note that you cannot create typescript using WinSCP.)   
Use the given data1.txt file for the typescript.   
  
**How to create a datafile on linux machine**   
Windows and linux store files differently. While usually transferring data files from windows to linux is fine, sometimes unintended characters are inserted into the file. If weirdness occurs, create the file on linux, instead of transfering from windows. To do this, use the pico editor. Suppose you want datafile data1.txt, enter:   
      pico data1.txt   
Copy and paste the data from the website into the file. Backspace so the cursor is on the last line of data. Then save:

^x // caret means to use Ctrl, so Ctrl-x

y // for "yes" to saving modified buffer

Enter // to save under the file name you gave it