Keil Programming Challenge: Part I - Overview

(Completed either before or after your screening appointment)

You will create a simple program in C using the KEIL IDE and C51 compiler.

1. Download the Keil's C51 Eval software (Keil uVision2) from the following link if you do not already have it:
   http://www.dpstele.com/xfer/KEIL/ek51v720.exe

2. Install Keil C51 Eval software. Refer to the Keil Startup guide on how to create a new project and how to compile or use one of the included example programs as a template. (The startup guide and two example projects are included in the following archive http://www.dpstele.com/xfer/KEIL/Examples.zip)

3. Running in the uVision2 Debugger, the program receives a sentence from the user.

   a. Output a user prompt.
   b. User types in a free form sentence and presses ENTER.

4. When the user presses ENTER, the program performs the following:

   Note: Please do not use the strtok() function.

   a. Redisplay the sentence as typed.
   b. Reverse the order of each word in the sentence.
      i. "Smart Label Printer" will become "Printer Label Smart"
   c. Alphabetically sort each word in the sentence.
      i. "Smart Label Printer" will become "amrSt abeLl einPrrt"

5. Type a brief summary on how to run your program, and what to expect. Provide an example of what output you would expect from your program given certain input.

6. What parts of this project did you find easy?

7. What parts of this project did you find challenging?

8. How much time did you spend on this project? What were the most time consuming parts of the project? Knowing what you know now, how long would a similar assignment take you to complete?

9. Zip and Email your entire project directory to DPS Telecom for review.
   Code must be able to compile and run within the provided KEIL IDE before we can evaluate.
   Email to: mcarberry@dpstele.com
   Cc: resume1@dpstele.com
   Subject: Keil Programming Assignment Part I