Homework 5

Due: Friday December 11th -- 11:59 PM

We debated calling this homework: Tartarus Tribulations, Nightmares aren't Meant to End so Easy, and Homework 5: Return of Homework 4. All jest aside, it really isn't too hard.

This homework will build off the last one. We will be adding some automated testing to the encryption program. You will need to make your program accept a file as input, encrypt the contents of that file, then check it against another file -- and vice versa. You must save the results to an output file so comparisons are made all the easier [sic] (so say Ben and Matt).

Your program will receive a file in the following format:

- If a line contains a colon, it should be treated as an options line
  - e.g., swap distance:shift distance
    - Note, there could be white space that you need to remove
- All lines below that options line should be encrypted (or decrypted) using the options in the file -- that is until another options line is found below
- Offer two radio buttons, "Encrypt" and "Decrypt", that execute the operation after the input file is loaded
- Display the resulting text to an output label inside the program
- Prompt the user to save said message to a file location of their choosing
- Have a button that checks whether the output file matches the expected output
- You are expected to use several functions or subprocedures. Make sure each procedure does only one thing. For example, one to read from the file, one to write to the file, one to shift, and one to swap.
- Make sure you use arrays in this homework, demonstrate that you understand how to go over every element in an array. This is most easily done by being able to handle any number of lines of input.