Exercise P2b

Submit Assignment

Due Sunday by 11:59pm **Points** 15 **Submitting** a file upload
File Types txt and cpp **Available** Apr 29 at 9:15pm - May 10 at 11:59pm 11 days

1. modify email1-algorithm.txt to create email2-algorithm.txt to prompt the user for the input and output filenames, open and read the input file, and output to the console the lines that contain the character @. If a line contains the character @ more than once, it should be output once for each. If a line contains no @ at all, it should NOT be output. Additional requirements: if either the input or output filenames are not a valid filename and do not end with ".txt", output a specific error message, and repeat the input process using variable prompts and default input and output filenames algorithm from exercise P2a.

2. Write email2.cpp from email2-algorithm.txt
The program should prompt the user for the input and output filenames, open and read the input file, and output to the console the lines that contain the character @. If a line contains the character @ more than once, it should be output once for each. If a line contains no @ at all, it should NOT be output.

Use an EOF loop to process the input file. Adapt the for-loop from the nsaEncoder.cpp program, to traverse each line that you input. In the loop, test each character in the line to see if equals the character @, and if it does, output the line to the console, and continue through the rest of the line, looking for more @'s.

Here are some guidelines:

Required subprograms for:

void introduction(string obj, string dir); //program introduction and user instructions
string getFileName (string fileType, string dFileName); //outputs variable prompt with default filename and gets a filename (either input or output) using input validation and returns the fileName depending on user input. fileType = "input" or "output". This function is called TWICE: 1st. input file name then 2nd: output file name.
int processLine(string lineFromFile); //output the line each time an @ is found in the line and return number of @'s

Optional until Exercise P2C, but once you get those functions to work, add a function:

void readFile(string iFileName); //reads input file until EOF that calls function processLine for each line read from the input file

If you open the output file, you are not doing this right.
If you do not have nested loops, you are not doing this right.
If you do not process the text a line at a time, you are not doing this right.
If you do not using the for-loop from the nsaEncoder.cpp, you are not doing this right.
If you use pointers or char arrays or C-style coding or C-library functions, except for ones demonstrated in our textbook, you are not doing this right.
If you do not create your own input files with which to test your program, you are not doing this right.
If you do not test your program first with the simplest test case then with the ten .txt files provided in the project writeup, and possibly create some more test cases on your own, you are not doing this right.
Compile and run the program. Submit the source file to the class website for credit.

Program I/O. The program should prompt the user for the input and output filenames, and then output the input file's lines to the console with the character @, once per occurance. There is NO file output in this version.

Example. Your program's console I/O should look something like this, (excluding your program introduction information):

Enter input filename [default: fileContainingEmails.txt]: x.txt
Enter output filename [default: x.txt]: y.txt

input filename: x.txt

output filename: y.txt

press any key to continue:

...

<you need to figure out for each input file used, what the output is going to be depending on how many @'s are on each line in the file>

0.txt 1.txt 2.txt 3.txt 4.txt

Minimize File Preview


```
dbach@dvc.edu; jbrecha@dvc.edu; rburns@dvc.edu; scmiller@dvc.edu;
mcollazo@dvc.edu; cduke@dvc.edu; DEckel@dvc.edu; KEdwards@dvc.edu;
PFarmer@dvc.edu; LFratessa@dvc.edu; EFreiden@dvc.edu; CHaynes@dvc.edu;
DJohnson@dvc.edu; KKeating@dvc.edu; GKhaja@dvc.edu; LKnight@dvc.edu;
HKow@dvc.edu; HaKresch@dvc.edu; PLeitner@dvc.edu; TLevy@dvc.edu;
LLin@dvc.edu; CLokke@dvc.edu; PLou@dvc.edu; JMagee@dvc.edu;
SMoore@dvc.edu; JMoran@dvc.edu; TMowry@dvc.edu; SNeedham@dvc.edu;
TNirgiotis@dvc.edu; BOsborne@dvc.edu; WParks@dvc.edu; DPrapave@dvc.edu;
MReynold@dvc.edu; SSarkis@dvc.edu; JeSmith@dvc.edu; KStallin@dvc.edu;
AWestcott@dvc.edu; RWestlake@dvc.edu; CWilcox@dvc.edu; PWillett@dvc.edu;
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5.txt 6.txt 7.txt 8.txt 9.txt

3. Please submit the following files:

email2-algorithm.txt

email2.cpp