Programming with Persistent Data CMPU 1028

Lab 1: Exercises with text files

1. Copy a file line by line:

Create a C program to copy a text file line by line using fgets() and fputs(). You might refer to the example done in class using fgets() and fputc().

Hint: look in the given C code in webcourses.dit.ie

2. Count the number of chars in a text file

Write a C program to count the number of character in a text file. The output of the program should be:

a) The total number of characters

You can test your program using the text file num_let.txt

3. Count the number of digits in a text file:

Write a C program to count the number of character in a that represents digits (‘0’,’1’,...,’9’). The output of the program should be:

a) The total number of characters representing digits
b) A message “Too many numbers!” if the percentage of characters representing number is above 20% of the total number of characters.

You can test your program using the text file num_let.txt

Hint: test the value with digit comparisons '0' or is there a useful function?

4. Separate a text file

Create a C program that reads a text file line by line and create two text files: even_lines.txt and odd_lines.txt. The program saves into the file even_lines.txt the content of all the odd lines read (first line, third line, fifth line...) and it saves into even_line.txt the content of the even lines (second, forth, sixth line....).

Test the program with a text file of your choice.

HINT: count the lines numbers and use the mod operator (% 2) to check if the line number is odd or even.