

Program 4

46 Points

Due: February 21, 2014 at 11:59 p.m.

A Cross Reference Generator in C++

This program focuses on using tree data structures to store information. This assignment is to be done by two-person assigned teams in C++ and the use of binary trees or another **approved** data structure is required for this assignment.

This assignment requires creating a case-insensitive cross reference generator[1]. The program will take an ASCII text file as input (e.g. Lincoln’s Gettysburg Address). After reading in the file, the program prints out an alphabetized list of all the words in the file, approximating the following format:

WORD	NUMBER OF OCCURENCES	LINES THAT THE WORD APPEARED ON
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For example, given the poem “There are holes in The Sky” by Spike Milligan and excluding the title, the cross generator program would print out the table below.

**There are holes in The Sky**

There are holes in the sky  
 Where the rain gets in  
 But they’re ever so small  
 That’s why the rain is thin.

Word	Count	Lines
are	1	1
but	1	3
ever	1	3
gets	1	2
holes	1	1
in	2	1, 2
is	1	4
rain	2	2, 4
sky	1	1
small	1	3
so	1	3
that’s	1	4
the	3	1, 2, 4
there	1	1
they’re	1	3
thin	1	4
where	1	2
why	1	4
<b>Total UniqueWords</b>	<b>18</b>	

## What to turn in for Program 4

Official test input files will be made available a few days before the due date. Turn in your assignment using the **turnin** program on the CCC machines. You should turn in a tarred file that includes your source code, a make file and a README file. The README file should provide any information to help the TA or SA test your program for grading purposes.