



THE UNIVERSITY OF THE WEST INDIES
ST. AUGUSTINE, TRINIDAD & TOBAGO, WEST INDIES
DEPARTMENT OF COMPUTING AND INFORMATION TECHNOLOGY

Data Structures – Assignment 3

Due date: 20-11-2017 at 9AM

Note:

*The solutions should be placed in a **Zipped folder** and uploaded using the **myelearning** submission link for this assignment.*

Please ensure that the submission contains your student ID number and name at the top of the program.

Submissions will be checked for plagiarism and copying. You may discuss high level design issues with your colleagues, but sharing work or obtaining solutions from another source constitutes academic dishonesty and will result in a mark of 0.

Write a program to produce a cross-reference listing of the user identifiers in a C/C++ program.

Output consists of the given program with the lines numbered. This is followed by an alphabetical listing of the identifiers; each identifier is followed by the line number(s) in which the identifier appears. Identifiers within string constants (delimited by double quotes) or comments (delimited by `/*` and `*/`) are not to be included. Identifiers within `//` comments are not to be included. Identifiers within single quotes (character constants) are not to be included. Reserved words are not to be included.

Identifiers must be kept in a binary search tree and the line number(s) for a given identifier held on a linked list.

Input: List of reserved words (in no particular order and any number per line) terminated by the word ENDOFLIST on a line by itself. This is followed by the program to be cross-referenced.

<< END OF ASSIGNMENT >>