

Project SG2 for Keith Miller @ CS4500

SG2 (Group 5) Developers:

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- No major revisions for design document started and completed on 11/10/2025 by De'Ja Thompson

Pseudocode:

DISPLAY welcome message and explain SG2 features

Initialize lists for files, seen filenames, and queries

REPEAT

    Prompt user for a .txt file

    IF invalid or duplicate THEN display error

    ELSE extract lowercase words, count total and distinct  
        store file data and display summary

UNTIL user stops or 10 files added

IF no files loaded THEN end program

DISPLAY table of filenames, totals, and distinct counts

REPEAT

    Ask user for a word to search

    FOR each file display how many times word appears

    Record search results

UNTIL user stops

DISPLAY summary of all searched words

Assign each file a number in order added

Build concordance mapping each word to all file-line-word locations

Sort words alphabetically and write concordance to screen and CONCORDANCE.TXT

Create word statistics for total counts and file appearances

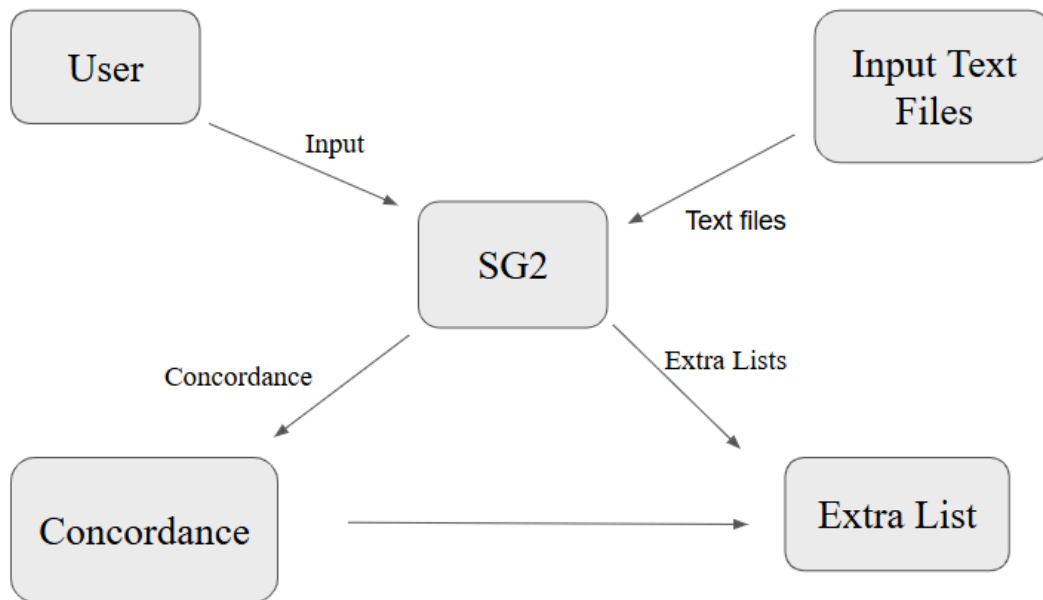
Generate three extra lists:

1. Top ten words with total occurrences and number of files
2. Words appearing in all files
3. Words appearing only in one file with its file number

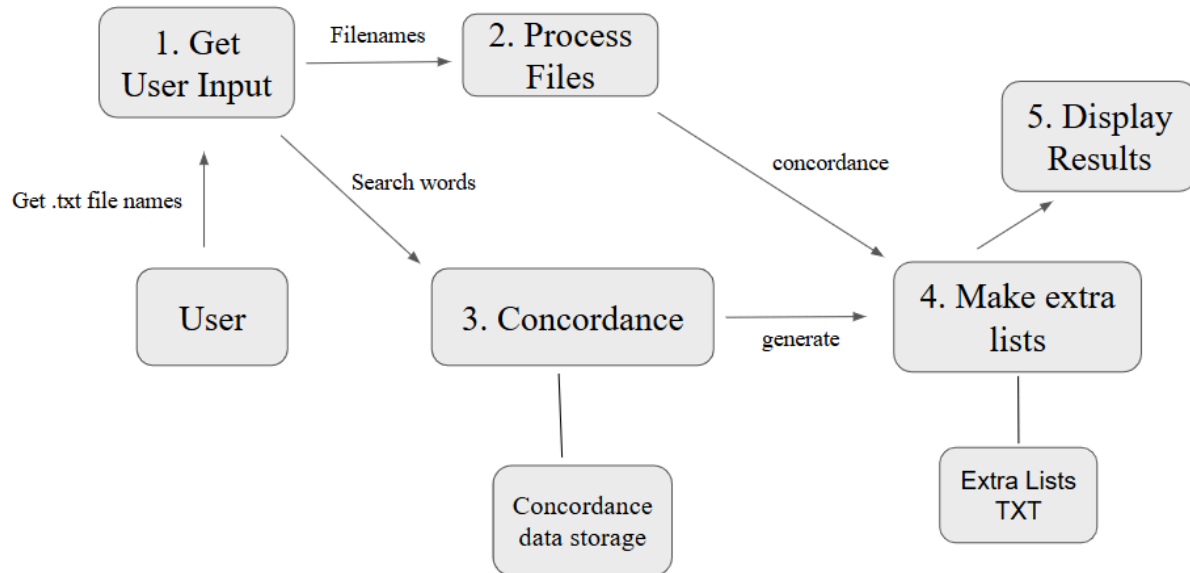
Write all lists neatly formatted to screen and ExtraLists.txt

DISPLAY completion message and end program

## SG2 Level 0 Data Flow Diagram



## SG2 Level 1 Data Flow Diagram



## SG2 Static Graph

