Write a command line program that reads files as arguments form the user where each file contains some English text. For each File you are required to make a separate thread and the name of the thread should be same as the filename. All files should be processed in parallel (**multi-Threading**).

Your program will be test like this:

java MyProgram.java vocabulary.txt inputfile1.txt inputfile2.txt ……….

- Vocabulary file contain words used to form English sentences

- Input Files contain English sentences

In this case Your program will create three threads named as vocabulary, input1, and input2 respectively.

Main thread of the program will work as a console-based UI through which user will interact with your program.

Description:

- Your Program displays the number of files and name of the files input.

- Read the vocabulary file and build a binary search tree from the read file.

- Read the input files, tokenize each files sentence into words and store them in temporary collection (vector etc.).

- Match each word of files in binary search tree and if match found, create instances of class word for each matched word.

- For more than one occurrence of same word increment the frequency of that word.

- Prompt the user to enter a query and check whether there exists a match file or not.

- Display the relevant messages, which shows how many words of query exists in files, number of matches found in each file, which file has a proper match in term of numbers matched as well as frequency of words in each file and any appropriate message that you think should be displayed.

- Do also produce exceptions where applicable. The program should not crash and display relevant messages for each scenario, Robustness of the program must also be guaranteed.

- Your main Thread should have the following menus: -

    1) Displaying BST build from Vocabulary File.

    2) Displaying Vectors build from Input files.

    3) Viewing Match words and its frequency

    4) Searching a query->It should display all the files query found in.

    5) Enter 5 for Exiting

Evaluation Criteria

Tasks	Marks
Multithreading	40
Match words and Frequency	10
Searching Query	10
Exception Handling	10
Menu	10
Demo	20