

## “Statistics”

Statistics is a menu driven program, that has 9 options of menu.

### Users’ manual

The program is able to take several inputs through keyboard and file handling. Initially, when the user has not entered input, the program will show such options:

1. Text input from file – this menu is for take input from text file. First, the user need to type the file path that he wants to take input from.
2. Text input from keyboard – here user can type text from keyboard as an input to the program.
0. Exit – to exit.
8. History – if the user choose this one, he can see all history of the program. (what were outputs, what were input, and the date)

Once, the user entered some input, the program will show such options additionally:

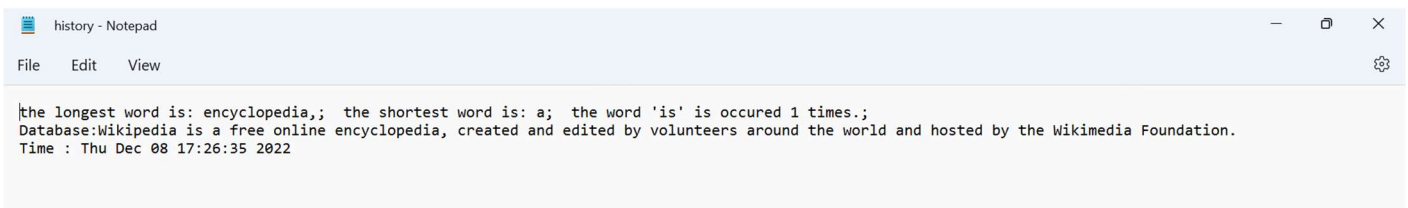
3. The longest word – to find the first longest word from the input that the user entered.
4. The shortest word – to find the first shortest word from the input that the user entered.
5. Occurrence – if the user choose this option, the program will want the user to enter a word that to be counted its occurrence. When the user entered the word, the program will show an occurrence of the word.
6. Most occurred – this is to find the first word that most occurred from the input.(if both of the words ‘if’ and ‘is’ occurred most times, the program will return one of them depending on their position. If the word ‘if’ appears first, the result will be the word ‘if’.
7. Least occurred – to find the first word that occurred least times.

Furthermore, the program is able to write every result and the date into a file called ‘history’.

### Data structures, design considerations

The program controls the menu using switch statement and store words into database using linked list.

That is the way the result written into the ‘history’ file:



```
history - Notepad
File Edit View
the longest word is: encyclopedia,; the shortest word is: a; the word 'is' is occurred 1 times.;
Database:Wikipedia is a free online encyclopedia, created and edited by volunteers around the world and hosted by the Wikimedia Foundation.
Time : Thu Dec 08 17:26:35 2022
```

### Description of the functions

Description of the every function is written in the c code as a comment.