**TEA (Text editor and analyzer)**

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# Overview

**tea** – just simple console text file editor. This program can be used to work with config files of different types. This program may effectively work with big text files, but with a not very long lines in it.

But first of all it is just a test application which allows me to show my knowledge (see [Required knowledge to implement the project](#_Required_knowledge_to)) and skills.

# Required knowledge to implement the project

1. Base knowledge of Java SE
2. Collection API
3. File System access API

# Program modes

|  |  |  |
| --- | --- | --- |
| **Mode** | **Prompt** | **Description** |
| Menu | menu> | Allows to choose a file to be read/updated/created. |
| Read | read> | Allows to read a file without alteration. |
| Update | update> | Allows to update a file. |

# Command line arguments

|  |  |  |
| --- | --- | --- |
| **Argument** | **Description** | **Mode after the program run** |
| Without any arguments | Opens the program in the menu mode. | Menu |
| -c <Filename> | Creates new file for editing. Opens the program in the update mode. | Update |
| -u <Filename> | Opens the file for updating. Opens the program in the update mode. | Update |
| -r <Filename> | Opens the file for reading. Opens the program in the read mode. | Read |
| -help | Prints how to use the program and exits. |  |

# Commands

|  |  |  |
| --- | --- | --- |
| **Command** | **Description** | **Supported in modes** |
| help | Prints a list of applicable for the current mode commands. | Menu, Read, Update |
| help verbose | Prints all applicable for the current mode commands in details. | Menu, Read, Update |
| <any command> ? | Prints message how to use the command in details. Supported only for the commands of the current mode. | Menu, Read, Update |
| exit | Exits the program. | Menu, Read, Update |
| cp <path> | Goes to the denoted directory. | Menu |
| ls | Prints the absolute path of the current directory and list of files and directories in it. | Menu |
| create <filename> | Creates new file for editing and switches to the update mode. | Menu |
| update <filename> | Opens the file for updating and switches to the update mode. | Menu |
| read <filename> | Opens the file for reading and switches to the read mode. | Menu |
| show | Shows the current line and its number.  If the file just opened and not empty shows the first line from the file. | Read, Update |
| show next | Shows the next line and its number and moves cursor to it. | Read, Update |
| show prev | Shows the previous line and its number and moves cursor to it. | Read, Update |
| show <num> | Shows the line number <num> and moves cursor to it. | Read, Update |
| show all | Shows all lines from the file with their numbers.  Lines are shown in portions of 25 lines.  To print the next portion press the Enter button.  To stop printing type STOP and press Enter. | Read, Update |
| show <from>-<to> | Shows lines from the denoted range with numbers. | Read, Update |
| show sorted <alpha|length> | Shows all lines with numbers from the file in the sorted order.  alpha – sorts lexographically.  length – sorts according to the length of each line. | Read, Update |
| show uniq words [number] | Shows uniq words in the text in sorted order.  If <number> key word specified, then also shows number of occurrences. | Read, Update |
| show buffer | Shows content of the buffer. | Read, Update |
| search [ci] [whole] phrase <phrase> | Searches and shows lines which contains the specified phrase.  If <whole> key word specified, then shows only lines which contain exact the same word as in <phrase>.  <whole> option is applicable for single word phrase only.  <ci> option allows to find lines case-insensitively.  Lines are shown in portions of 25 lines.  To print the next portion press the Enter button.  To stop printing type STOP and press Enter. | Read, Update |
| menu | Closes the file and switches to menu mode. | Read, Update |
| stat num signs | Shows number of signs in the text. | Read, Update |
| stat num words | Shows number of words in the text. | Read, Update |
| stat num uniq words | Shows number of unique words in the text. | Read, Update |
| stat num lines | Shows number of lines in the text. | Read, Update |
| add <before|after> <num> [buffer] | Adds new line before or after the line with index <num> and offers to type it. Sets cursor to the new line.  If the <buffer> key word is specified, then the line from the buffer is inserted. | Update |
| remove <num> | Removes line with index <num>. Sets cursor to the next line. The removed line is placed into the buffer. | Update |
| replace [buffer] | Clears the current line and offers to type new content.  If the <buffer> key word is specified, then the line from the buffer is inserted. | Update |
| replace [ci] [whole] [<from>-<to>] phrase <phrase> | Replaces all occurs of <phrase> with new phrase.  If <whole> key word specified, then searches only lines which contain exact the same word as in <phrase>.  <whole> option is applicable for single word phrase only.  <ci> option allows to find lines case-insensitively.  If <from>-<to> option specified, then replaces the phrase only in the specified range. | Update |
| copy [num] | Copies current line or line of number <num> to buffer. | Update |
| undo | Undoes previous command. | Update |
| redo | Redoes previously undone command. | Update |
| save | Save changes to the file.  Note: after this step changes cannot be undone by <undo> command . | Update |