User Guide for Console Based Text Editor

Group Member Contributions

Team Member	Contribution (%)	Responsibilities
Pawan Khanal	25%	Developed Classes and Implemented insert, undo and Redo functions
Kismat Basnet	25%	Developed display and search functionality and handled submission.
Ashish Rokka Magar	25%	Built Main function and User Interface
Sharjeel	25%	Implemented Edit and Delete functionality and handled user Guide

1.Introduction

We have developed a Console based Text editor which allows user to perform multiple text editing operations. We used Concepts from Linked list and Stack, especially doubly linked list and Used C++ programming language. It allows users to perform basic and advanced text editing operations such as insert, delete, search, edit, undo, and redo. The application demonstrates core data structure concepts like linked lists and stack management.

2.How To run the program.

Follow these steps to compile and run the program on your local machine:

For Windows OS:

1. Make Sure you have a C++ compiler installed, such as MinGW or Visual Studio.
2. Save the source code file with the name Yourprojectfilename.cpp.
3. Open Command Prompt and navigate to the folder containing the file using: cd path\to\your\file
4. Compile the program with the following command (using MinGW): g++ LinkedList.cpp -o TextEditor.exe
5. Once compiled, run the program by typing: TextEditor.exe

For Linux or Mac OS:

1. Make sure the g++ compiler are installed. If not, install it using your system's package manager (e.g., apt,). or You can use VS code provided extension as wel.
2. Save the source code file as LinkedList.cpp.
3. Open the Terminal and go to the directory where the file is saved: cd /path/to/your/file
4. Compile the program using this command: g++ LinkedList.cpp -o TextEditor
5. After compilation, run the program with:/Text Editor

3. Menu Options and Functionality

Upon running the program, the following menu options are available:

Option	Description
Insert at Beginning	Adds a new line to the beginning of the text.
Insert at End	Adds a new line to the end of the text.
Insert at Position	Inserts a new line at a specific position.
Delete Line	Deletes the line at the specified position.
Edit Line	Modifies the content of a line at a specified position.
Display Text	Displays all lines of the current text in order.
Search Keyword	Search for a specific keyword within the text.
Undo	Reverts the most recent operation.
Redo	Reapplies the most recently undone operation.
Exit	Exit the application.

4.Screenshots


```
Last login: Wed Apr 23 17:13:36 on ttys112
/Users/pawankhanal/Library/Mobile\ Documents/com\~apple\~CloudDocs/DSA/Finalcode/build/Debug/outDebug ; exit;
pawankhanal@Pawans-MacBook-Air ~ % /Users/pawankhanal/Library/Mobile\ Documents/com\~apple\~CloudDocs/DSA/Finalcode/build/Debug/outDebug ; exit;

Text Editor Menu:
1. Insert at beginning
2. Insert at End
3. Insert at Specific Position
4. Delete at Specific Position
5. Edit at Specific Position
6. Search for a keyword
7. Display the content
8. Undo
9. Redo
10. Exit
Enter your choice: 
```

Figure 1. Main menu interface

```
Last login: Wed Apr 23 17:13:36 on ttys112
/Users/pawankhanal/Library/Mobile\ Documents/com~apple~CloudDocs/DSA/Finalcode/build/Debug/outDebug ; exit;
pawankhanal@Pawans-MacBook-Air ~ % /Users/pawankhanal/Library/Mobile\ Documents/com~apple~CloudDocs/DSA/Finalcode/build/Debug/outDebug ; exit;

Text Editor Menu:
1. Insert at beginning
2. Insert at End
3. Insert at Specific Position
4. Delete at Specific Position
5. Edit at Specific Position
6. Search for a keyword
7. Display the content
8. Undo
9. Redo
10. Exit
Enter your choice: 1
Enter the line to insert at the beginning: My name is Pawan.

Text Editor Menu:
1. Insert at beginning
2. Insert at End
3. Insert at Specific Position
4. Delete at Specific Position
5. Edit at Specific Position
6. Search for a keyword
7. Display the content
8. Undo
9. Redo
10. Exit
Enter your choice:
```

Figure 2. Insert a line at the beginning


```
Last login: Wed Apr 23 17:13:36 on ttys112
/Users/pawankhanal/Library/Mobile\ Documents/com~apple~CloudDocs/DSA/Finalcode/build/Debug/outDebug ; exit;
pawankhanal@Pawans-MacBook-Air ~ % /Users/pawankhanal/Library/Mobile\ Documents/com~apple~CloudDocs/DSA/Finalcode/build/Debug/outDebug ; exit;

Text Editor Menu:
1. Insert at beginning
2. Insert at End
3. Insert at Specific Position
4. Delete at Specific Position
5. Edit at Specific Position
6. Search for a keyword
7. Display the content
8. Undo
9. Redo
10. Exit
Enter your choice: 1
Enter the line to insert at the beginning: My name is Pawan.

Text Editor Menu:
1. Insert at beginning
2. Insert at End
3. Insert at Specific Position
4. Delete at Specific Position
5. Edit at Specific Position
6. Search for a keyword
7. Display the content
8. Undo
9. Redo
10. Exit
Enter your choice: 4
Enter the position to delete: 1
Line deleted at position 1

Text Editor Menu:
1. Insert at beginning
2. Insert at End
3. Insert at Specific Position
4. Delete at Specific Position
5. Edit at Specific Position
6. Search for a keyword
7. Display the content
8. Undo
9. Redo
10. Exit
Enter your choice:
```

Figure 3. delete a line at specific position

```
Text Editor Menu:
1. Insert at beginning
2. Insert at End
3. Insert at Specific Position
4. Delete at Specific Position
5. Edit at Specific Position
6. Search for a keyword
7. Display the content
8. Undo
9. Redo
10. Exit
Enter your choice: 7
Text Editor Content:
1: hello world this is a text editor app
2: bye!!!!

Text Editor Menu:
1. Insert at beginning
2. Insert at End
3. Insert at Specific Position
4. Delete at Specific Position
5. Edit at Specific Position
6. Search for a keyword
7. Display the content
8. Undo
9. Redo
10. Exit
Enter your choice: █
```

figure 4. Display the text

```
Text Editor Menu:
1. Insert at beginning
2. Insert at End
3. Insert at Specific Position
4. Delete at Specific Position
5. Edit at Specific Position
6. Search for a keyword
7. Display the content
8. Undo
9. Redo
10. Exit
Enter your choice: 7
Text Editor Content:
1: hello world this is a text editor app
2: bye!!!!

Text Editor Menu:
1. Insert at beginning
2. Insert at End
3. Insert at Specific Position
4. Delete at Specific Position
5. Edit at Specific Position
6. Search for a keyword
7. Display the content
8. Undo
9. Redo
10. Exit
Enter your choice: 8
Undo successful

Text Editor Menu:
1. Insert at beginning
2. Insert at End
3. Insert at Specific Position
4. Delete at Specific Position
5. Edit at Specific Position
6. Search for a keyword
7. Display the content
8. Undo
9. Redo
10. Exit
Enter your choice: 7
Text Editor Content:
1: hello world this is a text editor app

Text Editor Menu:
1. Insert at beginning
2. Insert at End
3. Insert at Specific Position
4. Delete at Specific Position
5. Edit at Specific Position
6. Search for a keyword
7. Display the content
8. Undo
9. Redo
10. Exit
Enter your choice: ▉
```

Figure 5. Undo functionality

```
Text Editor Menu:
1. Insert at beginning
2. Insert at End
3. Insert at Specific Position
4. Delete at Specific Position
5. Edit at Specific Position
6. Search for a keyword
7. Display the content
8. Undo
9. Redo
10. Exit
Enter your choice: 7
Text Editor Content:
1: hello world this is a text editor app

Text Editor Menu:
1. Insert at beginning
2. Insert at End
3. Insert at Specific Position
4. Delete at Specific Position
5. Edit at Specific Position
6. Search for a keyword
7. Display the content
8. Undo
9. Redo
10. Exit
Enter your choice: 9
Redo successful

Text Editor Menu:
1. Insert at beginning
2. Insert at End
3. Insert at Specific Position
4. Delete at Specific Position
5. Edit at Specific Position
6. Search for a keyword
7. Display the content
8. Undo
9. Redo
10. Exit
Enter your choice: 7
Text Editor Content:
1: hello world this is a text editor app
2: bye!!!!

Text Editor Menu:
1. Insert at beginning
2. Insert at End
3. Insert at Specific Position
4. Delete at Specific Position
5. Edit at Specific Position
6. Search for a keyword
7. Display the content
8. Undo
9. Redo
10. Exit
Enter your choice: █
```

Figure 6. Redo Functionality

6. Troubleshooting Tips.

If the program does not build, check that you have a C++ compiler installed.

To minimize memory leaks, practice cautious memory management.

The application currently only handles plain text and does not interface with file storage.

7. Conclusion.

This text editor project effectively shows the use of basic data structures like linked lists and stacks in actual program development. It allows users to execute simple text manipulation activities in a terminal environment while learning essential programming principles like memory management and UI design in C++.