Algorithm:

1. Declare a class Node which is the basic structure for Doubly linked list.

2. Make an ADT to perform operations which a texteditor does.

3. The ADT's constructor has a variable head which initialises Node('|') that is the cursor for our text editor.

4. Declare the methods insert, left, right, delete, printL, save, get, help.

4.1. Insert()

4.1.1. Gets a character from the user and initialise the character-{data} as Node(data) to the newNode.

4.2.2. Checks if head value is ‘|’. If yes, then insert the newNode before the head and give its necessary links and change the head to newNode.

4.2.3. Else. save the head to temp and traverse it till the Node(‘|’) is found. Then save get the next Node to the temp and save it as temp2. Now insert the newNode in between temp and temp2.

4.2. Left()

4.2.1. save the head to temp

4.2.2. Traverse the temp till the Node(‘|’) is found.

4.2.3. if temp.prev is None then PASS

4.2.4. else save prev Node to the temp to temp2. Swap the values in temp and temp2

4.3. Right()

4.2.1. Save the head to temp

4.2.2. Traverse the temp till the Node(‘|’) is found.

4.2.3. If temp.next is None then PASS

4.2.4. Else save next Node to the temp to temp2. Swap the values in temp and temp2

4.4. Delete()

4.4.1. Save the head to temp

4.4.2. Traverse the temp till the Node(‘|’) is found.

4.4.3. If next of temp is None then pass

4.4.4. Else

4.4.4.1. if next of next of temp is None then save next of temp to temp2 and remove the links of temp2.

4.4.4.2. else save the next of temp to temp2 then change next of temp to next of temp2, next of temp2 to temp2, temp to prev of temp2.

4.5. printL()

4.5.1. Save the head to temp.

4.5.2. Traverse the temp till it’s not None.

4.5.3. Print the value of temp while traversing.

4.6. Save()

4.6.1. Open the file with the given file name by user.

4.6.2. Save the head to temp.

4.6.3. Traverse the temp till it’s not None.

4.6.4. if value of temp is ‘|’ traverse it.

4.6.5. else append the value of temp and save it into the file and traverse it.

4.7. Get()

4.7.1. Assign self.head as Node(‘|’)

4.7.2. Save the head to temp.

4.7.3. get the values of string from the file.

4.7.4. Traverse till the string is not None.

4.7.4.1. Save the Node with the character as its value to the newNode

4.7.4.2. Link the newNode next to the temp using dll implmentations.

4.8. Help()

4.8.1. Print the necessary methods to perform for a better user interface.

5. Define a User Interface to use the texteditor\_ADT and perform its operations