

Project name: - Text Editor

Project Members: -

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1. Problem statement

→ We are trying to implement c++ code which can perform basic tasks of Text editor like make new file, delete file, open it, edit it, manage them, save them, undo and redo, find and replace etc.

→ We used Linked list and stack data structure in our project.

2. Approach towards the project

→ here we show which classes and structure we defined.

Classes	Structures
Paragraph	word
File	Node_para
Texteditor	file_node

→ Here, our Paragraph class used pointer of word structure, as there order File and Texteditor class used pointers Node_para and file_node respectively.

Class Paragraph:

- ➔ This is basic class of our node we perform all our editing operations like undo and redo (using stack), find and replace, append, edit etc.
- ➔ This class operates with word structure which has string and next word as its data members.
- ➔ Here instead of using inbuilt stack of STL we used user define stack for undo and redo operation.
- ➔ In that class only first and last pointers contains all data of file.
- ➔ And here our stack was made by two pointers first_node and last_node they are stored all elements which we undo if we want to redo it again, then we need that data that stored by this two pointer, and we have two functions for it push_undo and pop_undo for pushing and popping any element in stack.
- ➔ Our push_word and pop_word functions manage all data of paragraph and new_para function make new paragraph for file.
- ➔ We used find and replace functions by traditional method and it returns all positions of that word in paragraph which we want to find.
- ➔ And replace function replaces that word in whole paragraph.

Class File

- ➔ In this class we manage all texts, sentences, paragraphs this class used structure named node_para which has paragraph class pointer object.
- ➔ node_para store all paragraphs which was included by that particular file.

Class Texteditor:

➔As we are going to use linked list and stack for our project, first we make Class named Texteditor, which manage all files, delete them, open and display content of file and edit it.

➔separate function for each operation is there in Texteditor.

➔It used structure named file_node which has data members as file name, file pointer and next pointer.

➔Texteditor class manage all its data by Linked list of file node and perform further operations by this pointers.

➔It has some new functions like edit_file and delete_file for edit and delete file.

➔At last, we implement menu driven programs and call our functions in by there cases.

➔In main we always give users to perform any undo, find, append or any further operation after every time they insert of append any data of file so he/she can edit its paragraph at every instance.

3. What we learn by this project.

➔we learned how to manage more then one class in our code.

➔using them in efficient manner we learned how to handle dynamic memory and mange it in Linked list.

➔we also learned how to implement undo and redo operations with the help of stack data structure.

4. Limitations of our code

➔After all undo redo and other functions if we saved that data then we can't able to change(undo) it, we can append new data on it or we can replace our data but we can't perform undo and redo after saving.

➔because after saving paragraph file class declare new paragraph for further addition so we can't undo previous para after saving.

➔And we can't move our cursor to particular word and can't able to select them so we don't able to implement cut and copy operation.

➔As this This limitation we are surely looking to resolve it and make our interface more user friendly.

THANK YOU