

Advanced Programming Lab **Project Report**

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Project - TextEditor

Project Description

It is a Text Editor which is useful for writing text documents and saving them.

Project Functionalities

It has the following functionalities :

- It can edit the text in the given text file.
- It can format the text like changing the size of letters,Bold,Italic.
- It can undo and redo the edits made by the user.
- It can also do spell check, auto complete and search a specific word.
- As a later part we would do the find and replace and also different format of letters like TimesNewRoman etc.

Implementation Details

- The editor can perform all the basic jobs like Open,Edit,Save,Save As etc.
- Used JEditorPane to edit text and tabs were implemented using JTabbedPane.
- We can change the font styles,sizes and make it bold,italic and underlined although we are unable to encode and save them. We used the java in-built *GraphicsEnvironment* library to do it.
- We have implemented undo and redo by using undo Manager in java.
- We have used the *Damerau - Levenshtein* Distance as the edit distance between two strings. We have used *BKTrees* to search through the Dictionary.
- We have used *Trie* which is constructed dynamically from the file and gives suggestion.
- We have also implemented Find and Replace by naive search and also added a edit bar.
- We have also added *KeyBindings and Accelerators*. KeyBindings are added for closing and shifting through tabs.
- Threading is also implemented for Dynamic Trie construction and initial BKTree construction from Dictionary.