# DS Project

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## Project Title: Text Editor

## Description: Text editors are the most commonly used software for writing documentation, plain texts and project source codes. Notepad, WordPad, etc. are some of the popular text editor tools with various features and options. After our basic UI we will add more unique features, including Vocabulary Check, Dictionary and Thesaurus, Find and Replace options, Parenthesis Checking for Programmers and Image Insertion. These all features will use various Data Structures which are best suited for these features.

## Design:

* We can use Gap Buffer or Rope Data Structure to insert delete and edit our data in our live environment.
* Interval trees will provide a good interface for a range of strings for implementing highlights and annotations.
* Stacks can be implemented for Parenthesis Checking.
* To implement Spell checking from a Dictionary, BST or BK trees can be taken as a suitable data structure.
* Double Linked List can be used to have multiple tabs in a single window.
* Data for Vocabulary can be collected from an online source.