

PROJECT PROPOSAL

DELHI TECHNOLOGICAL UNIVERSITY

Department of Applied Mathematics <u>III Semester</u>

▶ Project Details

Topic: Command based Text Editor Subject: Data Structures (CS 251)

> Project by

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> Project Introduction

In this project we will discuss about Linear Data Structures and their real world applications.

There are so many applications of Linear data structures. Linear data structures are used almost everywhere around us like,

- 1. Integer sequence is an Array which is a Linear data structure.
- **2.** Everyday sentences we used to write is String which is Linear data structure.
- **3.** The arrangement of plates or books (vertically) is Stack which is Linear data structure and uses LIFO fashion i.e. Last In First Out.
- **4.** The queue we used to make for trains, buses, etc. are Queue which is Linear data structure and used FIFO fashion i.e. First In First Out.
- **5.** Train blocks linked with each other by a connector which is an example of Linked List which is also a Linear data structure.

and there are many more real life examples.



So, as we can see that Data structures is used and inspired from our day to day life.

So, we are going to create a text editor with as many functionalities as we can with the help of different Data structures. We will also go through the definitions and basic code for some of the Data structures first.

Text editor is something which helps us to create or edit different text files.

Text files have an extension of .txt.

> Project Objective

Objective of this project is to create a **Command based Text Editor** program using Data Structures. Text editor helps us to create and edit .txt file. A text editor is a program that allows the user to open, view, and edit plain text files (files containing only text).

They are essential to the world today as lots of people often try to open a text file and view the content. We have interacted or heard of text editors before such as Atom, Vim, Visual Studio Code, and so on. Text editors have evolved over time to become faster and provide more features than their competitors.

We will be implementing as many functionalities as we can for this project.

Learning and understanding the real world application of Data Structures is our main and focussed objective for the project.

We will be going through definitions, codes and real world applications of different Data structures and then we will be implementing some of those data structures to create a Command based Text Editor program.

Date:

September 7, 2021