SPL-1 Project Report, 2019

Text Editor

Course: Software Project Lab I

Course No: SE 305

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1. Introduction

Text editor is a computer program that edits plain text. It can be used for changing files. By using this editor a file can be created, texts can be saved in a file and then we can manipulate the file .For example copy a text and paste it, copy a file or delete a file, basic operations on font etc.

1.1 Background study

Before text editors existed, computer texts were punched into cards. Physical boxes of those cardboard cards were inserted into a card reader. It was a very difficult process. Then the idea of text editor was introduced. The first editor was a line editor which has a typewriter-style terminal. Commands effected edits to a file at an imaginary insertion point called cursor. Those edits were verified by typing a command to print a small section of that file and thus the whole file was printed. But after that screen based text editors were introduced where we can see the terminal. From then the improvisation is still going on.

This is a quite fill based project. A text editor has some basic functions. We can create files, write something in that file, then we can save it and close it. Again we can open a new file but that does not mean that the previously saved ones will not exist. So we can open a previously saved files.

File

In C programming, file is a place on physical disk where information is stored.

When a program is terminated, the entire data is lost. Storing in a file will preserve the data even if the program terminates. If there is a large number of data, it will take a lot of time to enter them all. If the data are preserved in a file, then we can access them using a single file by using a few commands in C .We can easily transfer them from one computer to another without any changes.

. There are two types of files:

1. Text files
2. Binary files

File Operations

In C we can use four major operations on the file, either text or binary:

1. Creating a new file.
2. Operating an existing file.
3. Closing a file.
4. Reading from and writing information to a file.

When working with files, pointer of a type file must be declared

For example:

File *fptr;

Fptr= fopen (“filename”,”mode”)

Modes can be of different types like “r” for ”open for reading”, “w” for “open for writing”.

For closing a file we use

fclose (fptr)

HTML File

HTML is a HyperText Markup Language file format used as the basis of a web page. HTML is a file extension used interchangeably with HTM. HTML is consists of tags surrounded by angle brackets. The HTML tags can be used to define headings, paragraphs, lists, links, quotes, and interactive forms.

1.2 Challenges

Implementing a new software solution carries with it a number of challenges. The process can be overwhelming, confusing and lengthy. For implementing this project there are lot of challenges that I have faced. Some of them are

- Copying a text file to an html file.
- Handling bigger files.

2. Project Overview

I have divided my whole project into three different parts. They are:-

- Basic operations of files.
- Creating table.
- Font changing operations using HTML.

- **Basic operations of files**

  In this section, the basic operations of a text editor is done. At first, we can create a new file and write texts. Then it will be saved when our writing is finished Again we can create a new file for doing the same as previous. We can open a previously created file also. Then comes copy and paste. We can copy a file to another file or copy a line of a file and paste that line in that file at our desired place. We can append any text at any files that is previously created. We can delete a file also. Then comes another thing which is counting. We can count lines, words and characters of a file.

- **Creating table**

In this section we can create table. It has some functions also like create table, insert, modify, search, delete. For example-

Name	**Address**	**ID**
A	AA	10

This is a table that has been created. If we want to insert then it will be like:-

Name	**Address**	**ID**
A	AA	10
B	BB	20

We can modify data and delete data also. This table function is implemented using structure.

- **Font changing operations using HTML**

This section is very interesting. As creating this text editor, we are using no UI and everything is terminal based so changing font sizes and styles can not be showed in terminal. So for these operations we have used HTML files. From a normal text file we have select the part we want to manipulate and then we have to add tags to that line. Most important part is that an html structure based file must be there, where we have to put that line. Then we have to copy that txt file into an html file. Then we can open that using browser and show the changes.

3. User manual

- Open executable file

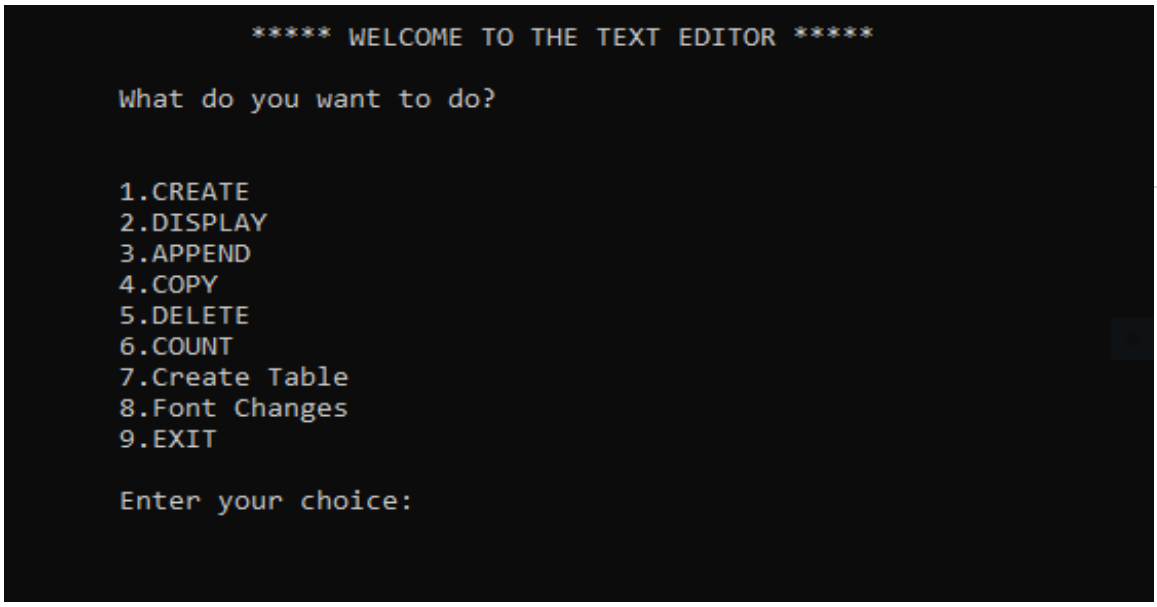

Figure 1

- Then we have to press the number which we want to do.
- Let's press 1
- We have to give a file name which is to be created.
- Then start writing and press * to save.

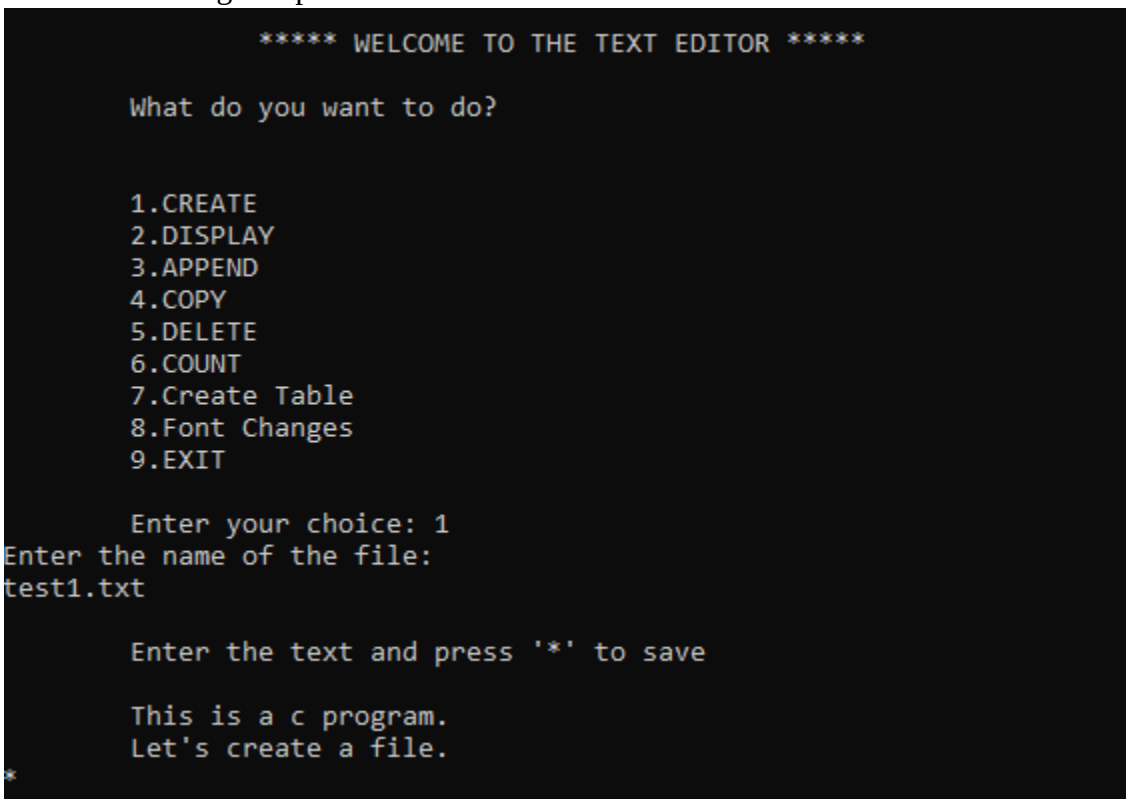

Figure 2

- Let's check if the file has been created or not.
- Press 2 for display the file
- Enter the name of the file which we want to open.

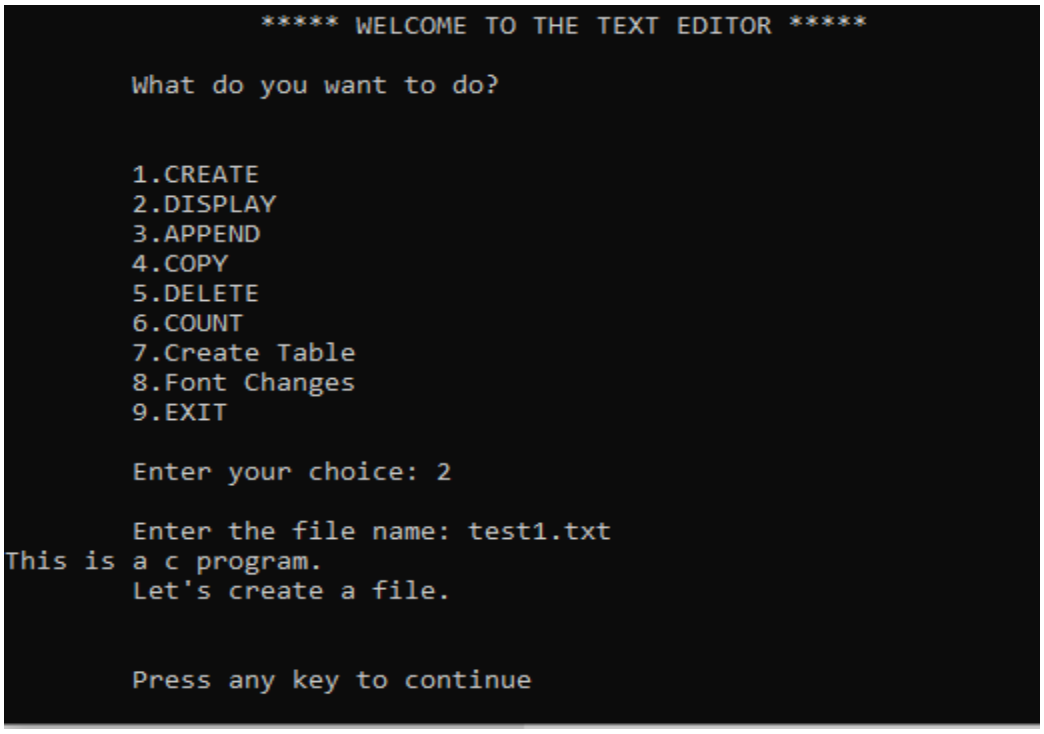

Figure 3

- We can see the file using notepad.

Figure 4

- Other operations are done in this same manner.
- Let's create a table.
- Press 7 and enter a name for the file.

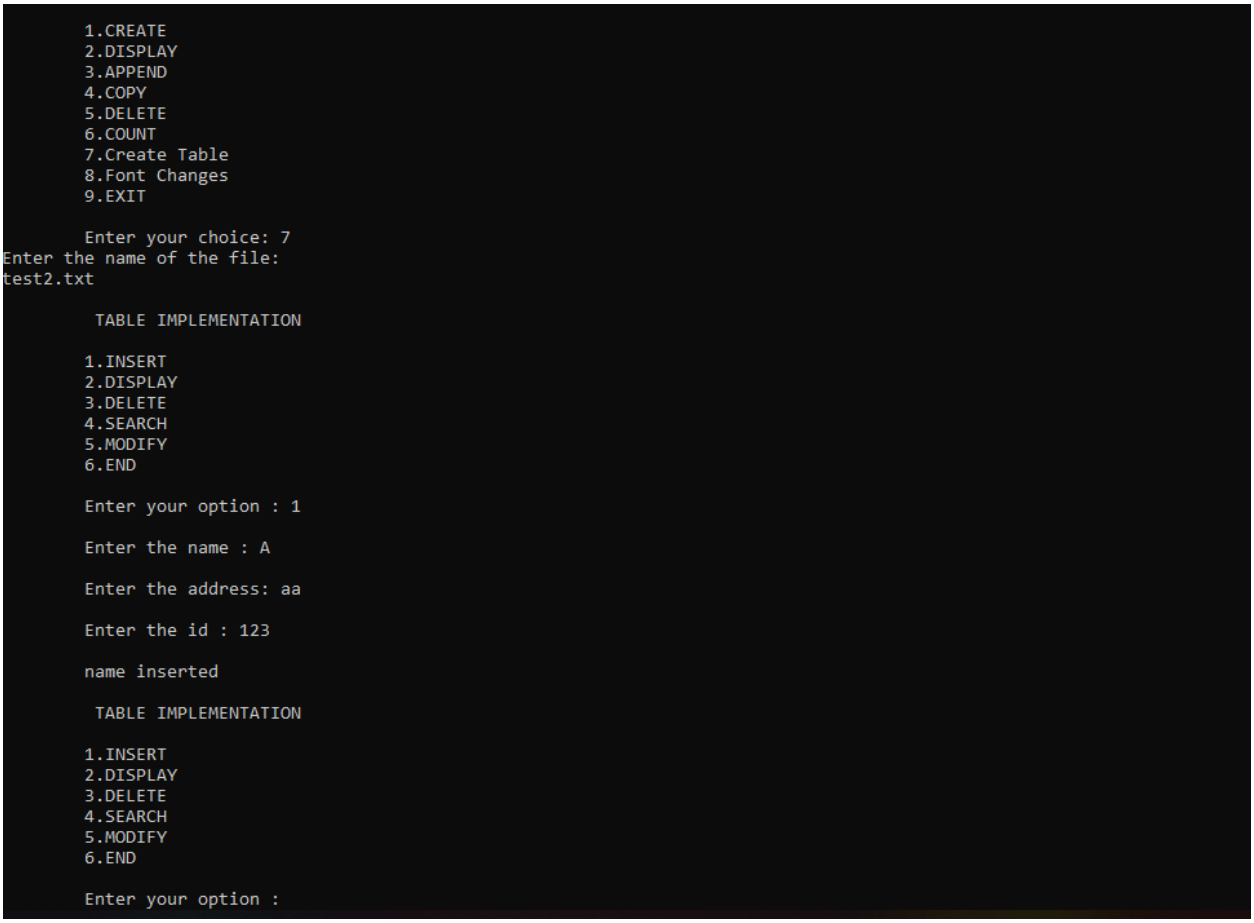

Figure 5

- Now let's look for changing fonts
- Press 8 and choose any of the 3 options which we want to do.

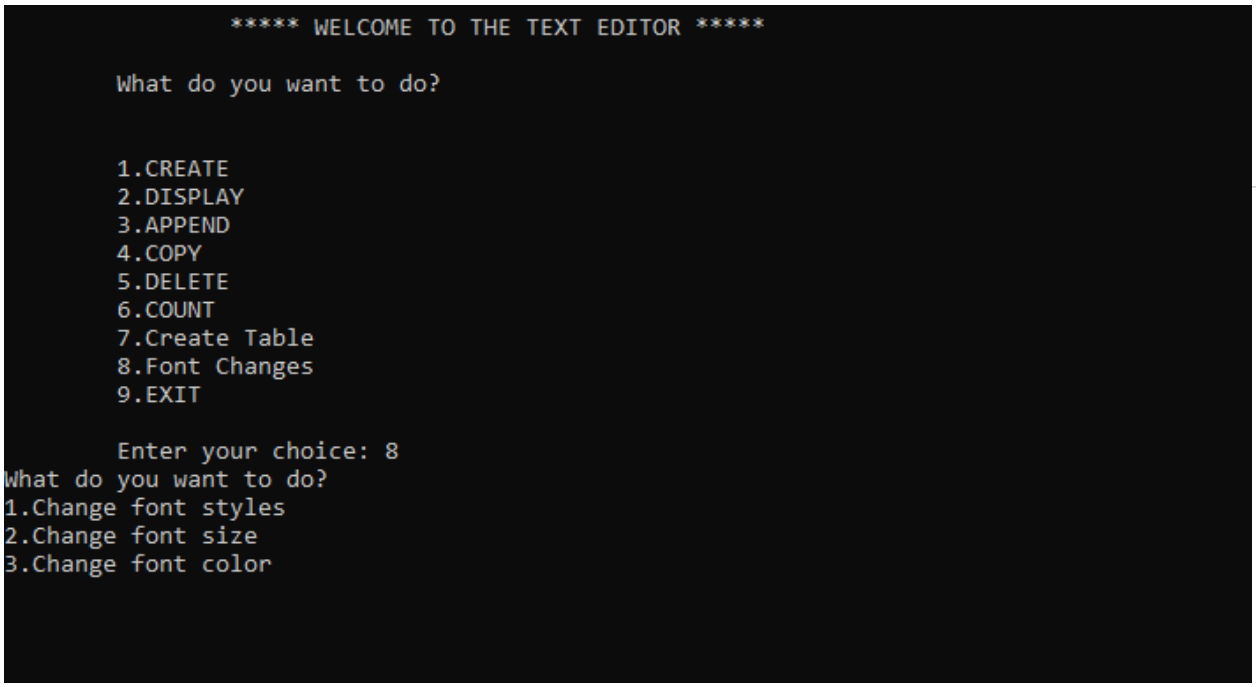

Figure 6

- Finally, to come out of this editor press 9 which will end the program.

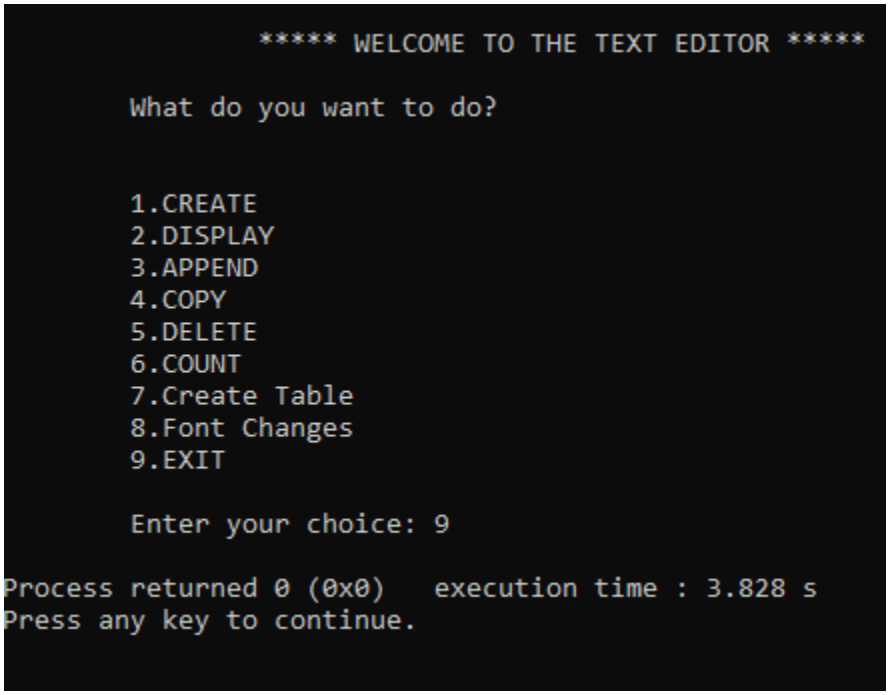

Figure 7

4. Conclusion

This project helps me a lot to improve my coding skills and I have learned how to work with files and manipulate them. I hope it will help me to deal with different situations in future. This project was very challenging as I was facing some problems with different files but I gained a lot of experiences through it. So I want to thank my supervisor for guiding me a lot during this journey of this project.

5. Appendix

In this project, I have to work with HTML files. I want to do further improvisations.

6. References:

1. https://www.programiz.com/c-programming/c-file-Input-output
2. https://whatis.techtarget.com/fileformat/HTML-A-Web-page