



ENGINEERING FACULTY

COMPUTER ENGINEERING

DEPARTMENT

CME 1252 PROOJECT BASED LEARNING II

PROGRESS REPORT OF THE EDITOR PROJECT

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Introduction: The purpose of this report is giving information to the instructors of the lecture about the status of the project. The time period covered in the report is from the starting day, which is 16 May 2021, to the 11 June 2021.

Project Description: The aim of the project is developing an editor with the abilities such as writing, deleting, copying and cutting, finding, replacing, loading, saving etc.

Progress Summary:

Work Done:

Ceyda Yirtici:

- The working principle of the cursor was established.^[3] Accordingly, the insert mode of the character writing function and the right/left movements of the cursor were emphasized.
- The eligibility conditions of the characters were determined, and keys were assigned to use uppercase /lowercase letters.^[1]
- Paragraph insertion method was added.^[2] A method that skips lines without breaking words and calculates line breaks is enhanced

for use in later functions. Using this information, the regular change of cursor in up and down movements was calculated.

- The print function was rewritten with a function that regularly calculates the current page head.
- Page up and page down functions have been added to switch to the previous and next page automatically or manually.
- The home and end keys are assigned to move the cursor to the beginning and end of the line.

Tutku Ekin Bayrı:

- Find function which finds the selected word(s) in the file.
- Next function which highlights one of the selected words and goes to next when next button is pressed.
- Replace function which replaces the selected word(s) with the newly written word.
- Cut function which deletes the selected word(s) and holds them to do operations such as paste.
- Overwrite function which writes in overwrite mode.
- Toggling between overwrite and insert mode.
- Overwrite flashing in print function which makes the cursor flash in overwrite mode.
- Backspace function which deletes the letter next to cursor when backspace is pressed.^[3] ^[2]
- Refreshing of screen which deletes the leftovers from backspace operation.

- Adding new colors so that user can type, copy and paste using these colors.

Emircan Tepe:

- The basic design of classes such as paragraph-letter nodes and some needed variables, including the linked list^[2] implementation of the editor.
- As an additional improvement, undo operation, which gives the user to chance for taking back the last operations.
- Stack data structure implementation with linked list.
- Selection operation which is a feature giving the user to select a letter, a word or a paragraph(s).
- Copying and pasting operations, which give the user an easier way to making changings when writing.
- Cut function which deletes the selected word(s) and holds them to do operations such as paste.
- Saving the file in the txt format.
- Loading the file from the txt format to the editor.
- A log file was held as an additional improvement for making the program live when not working.
- The starting functions such as enigma (Window library).

Work in Progress:

- Justify
- Testing/Debugging

Work to be done:

- More additional improvement

Timeline table:

TASKS	WEEK 1	WEEK 2	WEEK 3
Analyzing			
Designing classes and structures			
Cursor movements			
Adding and deleting			
Special function Keys			
Writing Mode			
Additional			
Progress report due			11.06.2021

Problems Encountered:

A problem changing the page head in the page up and down functions was outcropped, and the project gave an error while printing letters. Therefore, the last character (paragraph or letter) of the previous page was kept. At each page transition, the character before the beginning of the page was instantly assigned as the last character of the previous page. At the end of each change to the current page, the next character of this retained character is recalculated as the top of the page.

While doing colors, a color selection screen was created. In this color selection screen, the user was supposed to press left and right arrows to choose the colors. But for some reason, keypr which checks if a key is pressed would never activate causing problems. The solution found was keypr only worked when an output is inserted to screen in while loop. Otherwise, it would not work. Finding this took up some time therefore it was a problem.

Overall Assessment of the project: The given project schedule has been being followed successfully by the team, with additional improvements. Besides following, only 1 task (Justifying, referred above) is in progress.

References:

- [1] Onurgil T. (2021). Mouse and Keyboard Standard Code. In T. Onurgil (Ed.), *CME1252: Project Based Learning*. Dokuz Eylul University
- [2] Birant, D. (2021). Multi-Linked List. In D. Birant (Ed.), *CME1212: Algorithms and Programming*. Dokuz Eylul University
- [3] Birant, D. (2021). Double Linked list. In D. Birant (Ed.), *CME1212: Algorithms and Programming*. Dokuz Eylul University