

HACETTEPE UNIVERSITY

COMPUTER SCIENCE – BBM104

ASSIGNMENT-1 REPORT

Problem Definition:

This assignment simulates a file and word processing program. It creates files in a virtual environment and operates commands, which are taken from the users, on it. The program creates, deletes and makes changes on the files and also prints datas about files in different formats with the taken commands.

Solution Approach:

The program makes files in a structure form named repository by using lots of dynamic memory allocation, structure and file operation parts. Firstly, the program takes command lines from a file that is given in system argument by users to memory for easing to make operations on files. It parses these command lines so that each command (i.e. create, delete, print) takes necessary part for itself and makes its functions on datas.

Dynamic memory allocation functions are used in many parts of code.

In main function, calloc function is used for make allocation for string array to hold command lines, files and command keyword string. Also deallocates memory which are allocated for files and its datas.

In readline function, allocates memory with calloc function for command line strings.

In extendBuffer function, is used so many times in code and reallocates the buffer for growing data size by doubling.

In createFile, deleteFile, removeText, appendText, replaceWord and print functions, dynamic memory allocations are made for holding datas related with relavant parameters. Also deallocations are made in the exiting parts of functions.