

# CSE 344 hw1 Report

**Kaan Can Bozdoğan 161044070**

## **main():**

I parsed the command line arguments using **getopt()** function in a while loop with the switch case statements. In switch case I controlled every command line argument if they satisfy their syntax rules (For example file sizes must be a number). If they don't, I warned the user by printing their wrongs on the terminal and then terminated the program.

If they are valid then I call the **traverseDir()** function to find the files, saving them to a string array, and then printing them as a single tree with the **printTree()** function.

## **traverseDir()**

I used **DIR\*** and **struct dirent\*** data types and **opendir()** and **readdir()** functions to recursively traverse through file system. For every file I read I used **isFileFound()** function to control if they have the properties of the file we are searching for. If they do they are saved to the string array which contains the paths to the files found.

## **isFileFound()**

Checked the file properties using **struct stat** and **stat()** functions.

## **printTree()**

Comparing every file path I found with it's consecutive part and found their common parts. After printing one's path, I just printed the non-common part of the next one's path. With that I was able to print them in a single tree which resembles the file system.