I, Trinadh kumar Atmuri, declare that I have completed this assignment completely and entirely on my own, without any unauthorized consultation from others or unathorized access to online websites. I have read the UAB Academic Honor Code and understand that any breach of the UAB Academic Honor Code may result in severe penalties.

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Documentation:

printOnly() - This function is used to print only regular files or only regular files or only directories. I first get the file type for the current directory and if the file type matches top that which we want to print, then it will be shown on output.

printReg() - This function is used to print the file info when only ./search command is run.

printExtraInfo() - This function is used to print the extra information such as fileSize, filePermissions, and the last accessed time. We use ‘stat’ to get this information. Triggered when -S is specified.

sizeRestrictedPrint() – This function is triggered when -s is specified in path. We find the size of the file and if its size satisfies the <=maxSize, then those files are printed.

stringPattern() – This function is triggered when -f is specified in flags. Files are only displayed if pattern and the depth criteria is matched.

traverseDirectory() – This is mainly used to traverse in directory and subdirectories. We also use this when multiple flags are specified. We have a if.. else if ladder just for this.\

decryptArguments() – This function is used to get flags and path from the command line arguments.

Main() – In this we use a string that has all the flags specified in the command line which is passed to the traverseDirectory().

Additional implementation for Homework 3:

smallEfunc() – This function is used to create child process and execute the unix command specified at the command line for the current path specified at the function. This function is called multiple times when “ e ” argument is given.

capitalEfunc() – It is used to execute the unix command specified on all the paths. But this takes all the paths at once and perform the unix command on a single function call.

Necessary changes are made to the stringPattern(), sizeRestrictedPrint(), traverseDirectory() functions in order to fit the “ e ” and “ E “ functionality.

In the main function, I tokenized the command that is specified to both e and E, so that it could be passed to necessary functions later on.