This repository contains the answer for Q2 and Q4 in chapter39, OSTEP.

myls.c is a program that simulates ls in Linux operating system which lists all the regular files and secondary directories in the given path. The program uses getopt() to acquire the path arguement and scans the secondary entries with opendir() and readdir(), the former returning the DIR pointer of the given path and the latter returning a dirent pointer of secondary entries one at a time. We then use those dirent pointers to acquire the name of the file or the directory using variable d\_name, and then constructs the path to the secondary entries which are our main focus. stat() is then used to acquire all the information of the files and directories.

Run myls.c with commands below:

./myls will print out files under the current working directory.

./myls -l yourpath will print out files under the given directory.

search.c is a program that lists the files recursively under the given root directory. It's also equipped with a -s flag that activates search mode, which is an imitation of find in Linux.

Run search.c with commands below:

./search -p yourpath will print out files recursively under the given rootpath.

./search -p yourpath -s filename will find all files under the given rootpath with the filename given.

Following are some trials of the two programs:









