

Problem 2: File Recursion

In this problem first we find the items (files or directories) inside the given directory. If it is a file then we compare it to the suffix and store the path if it matches. If it is directory then we recursively call the same function until we have searched through all the sub folders inside the given directory.

Time Complexity:

$O(n)$ – Considering the fact that we traverse through all files and directories

Space Complexity:

Consider f is the number of files found.

$O(f)$ – we get a list of f file paths.