

# OPERATING SYSTEMS

## PROGRAMMING EXERCISE -4

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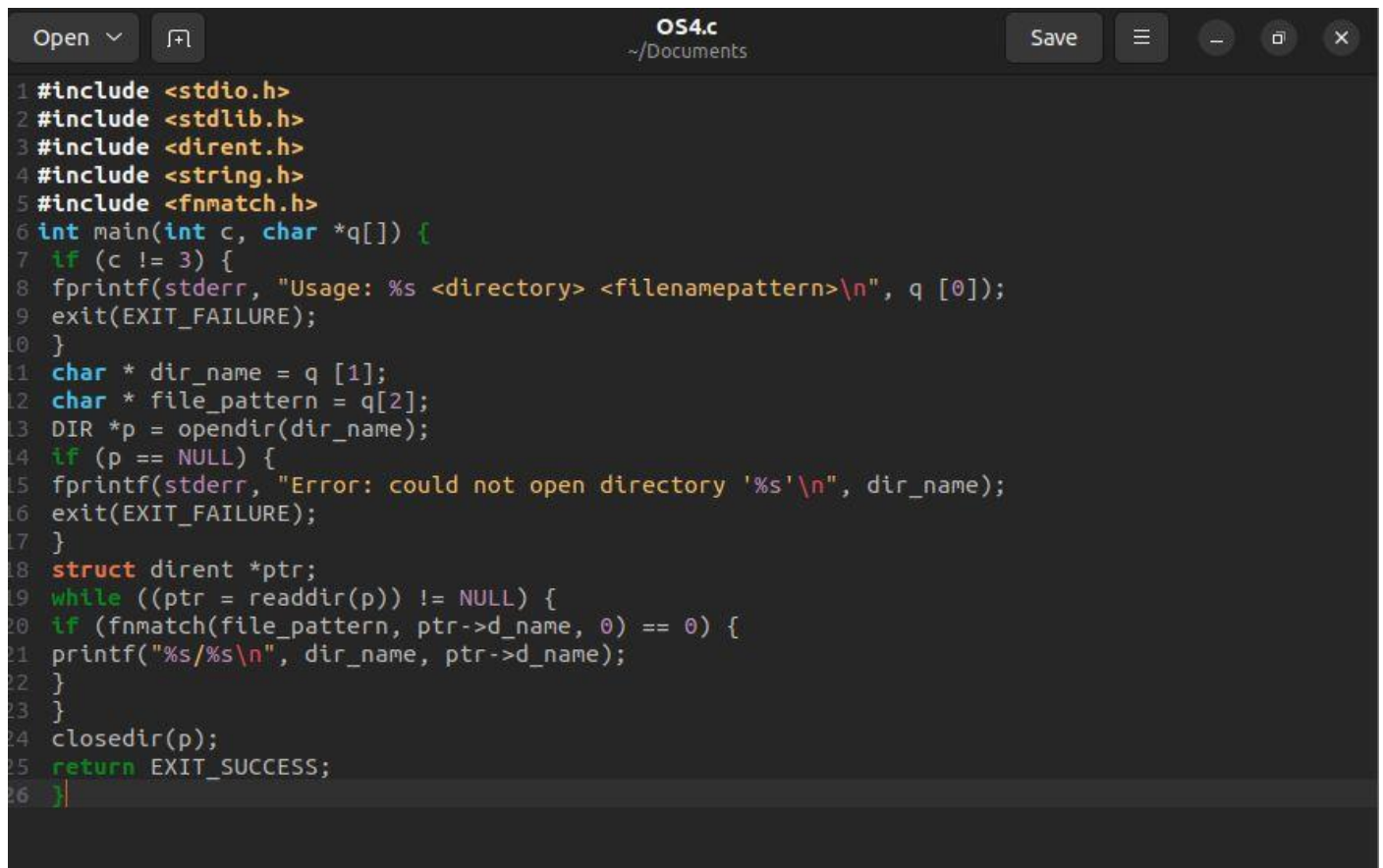
SEC : 4F

Write a C program to list all files whose name matches the filter. Inputs to the program as run time arguments: directory and filename (need to support wildcard)

Example: a.out /home/Ubuntu/abc1.txt

Example: a.out /home/Ubuntu/abc\*.txt

Code:

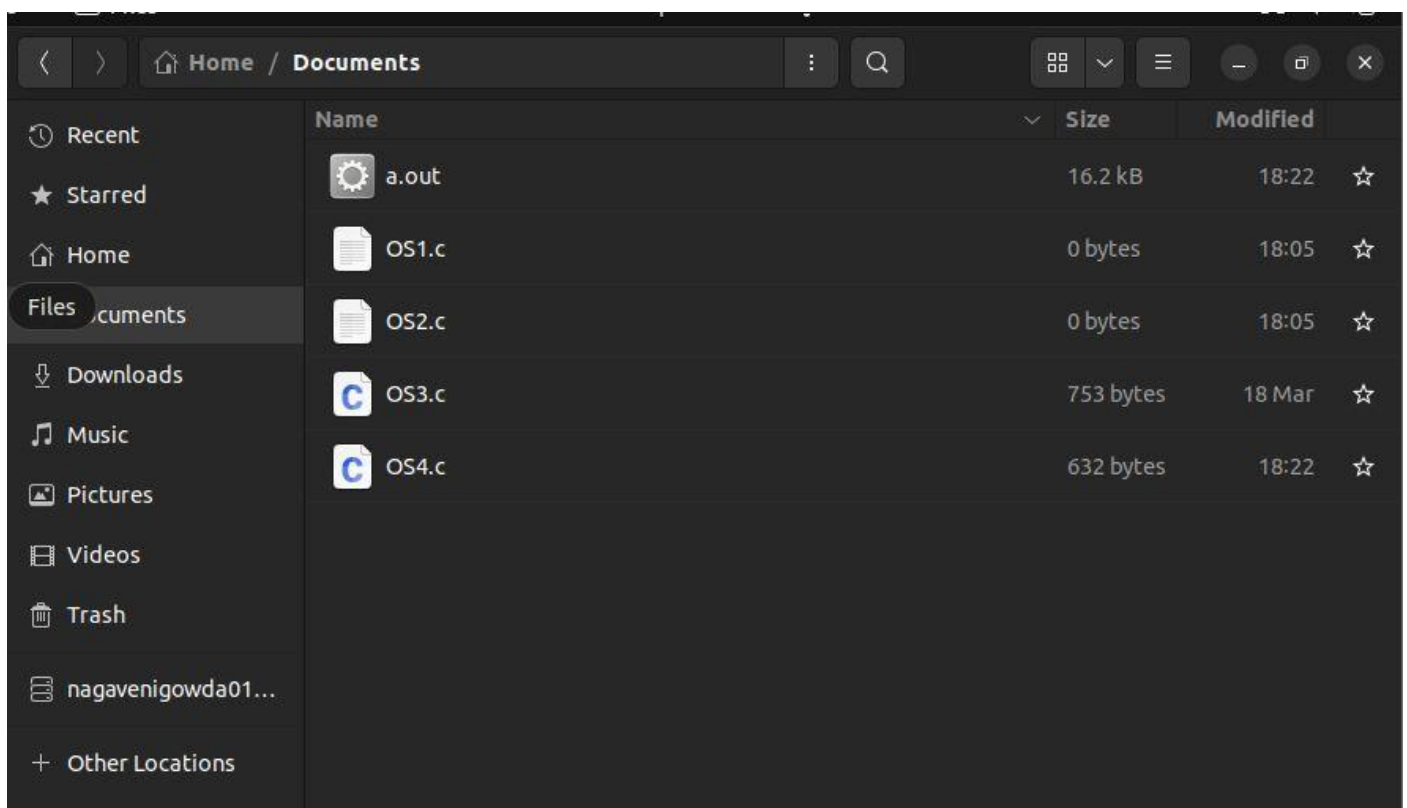


```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <dirent.h>
4 #include <string.h>
5 #include <fnmatch.h>
6 int main(int c, char *q[]) {
7     if (c != 3) {
8         fprintf(stderr, "Usage: %s <directory> <filenamepattern>\n", q[0]);
9         exit(EXIT_FAILURE);
10    }
11    char * dir_name = q[1];
12    char * file_pattern = q[2];
13    DIR *p = opendir(dir_name);
14    if (p == NULL) {
15        fprintf(stderr, "Error: could not open directory '%s'\n", dir_name);
16        exit(EXIT_FAILURE);
17    }
18    struct dirent *ptr;
19    while ((ptr = readdir(p)) != NULL) {
20        if (fnmatch(file_pattern, ptr->d_name, 0) == 0) {
21            printf("%s/%s\n", dir_name, ptr->d_name);
22        }
23    }
24    closedir(p);
25    return EXIT_SUCCESS;
26 }
```

Output:

```
nagavenigowda@ubuntu-1: ~/Documents
nagavenigowda@ubuntu-1:~/Documents$ gcc OS4.c
nagavenigowda@ubuntu-1:~/Documents$ ./a.out . OS\*
./OS1.c
./OS2.c
./OS3.c
./OS4.c
nagavenigowda@ubuntu-1:~/Documents$
```

Documents



Name	Size	Modified
a.out	16.2 kB	18:22
OS1.c	0 bytes	18:05
OS2.c	0 bytes	18:05
OS3.c	753 bytes	18 Mar
OS4.c	632 bytes	18:22

THANK YOU 😊