

OPERATING SYSTEM

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Q. Write a C program to list all the files that have been created after a certain date. Inputs to the program : directory and date

CODE:

```
#include <stdio.h>
#include <stdlib.h>
#include <dirent.h>
#include <sys/stat.h>
#include <time.h>

int main () {
    DIR *d;
    struct dirent *dir;
    struct stat stats;
    struct tm dt;

    char dirname[256];
    printf("Enter directory ('.' for current directory): "); fflush(stdout);
    scanf("%s", dirname);
    d = opendir(dirname);
```

```

int dd, mm, yyyy;
printf("Enter date: "); fflush(stdout);
scanf("%d", &dd);
printf("Enter month: "); fflush(stdout);
scanf("%d", &mm);
printf("Enter year: "); fflush(stdout);
scanf("%d", &yyyy);

if (!d) {
    printf("Error opening directory!");
    exit(0);
}

while ((dir = readdir(d))) {
    if (stat(dir->d_name, &stats) == 0) {
        dt = *gmtime(&stats.st_ctime);
        int d = dt.tm_mday;
        int m = dt.tm_mon+1;
        int y = dt.tm_year + 1900;

        if (yyyy < y)
            printf("File: %s\n", dir->d_name);
        else if (yyyy == y && mm < m)
            printf("File: %s\n", dir->d_name);
        else if (yyyy == y && mm == m && dd < d)

```

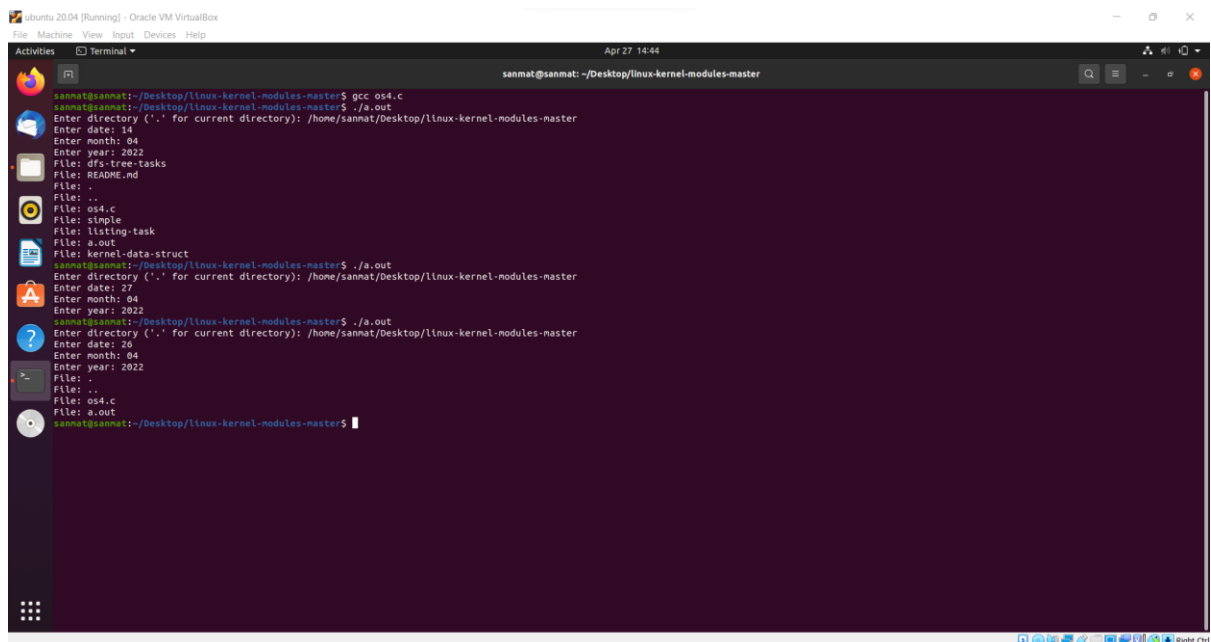
```

        printf("File: %s\n", dir->d_name);
    }
    else
        printf("Couldn't read file properties of file: %s", dir->d_name);
    }
    closedir(d);

    return 0;
}

```

OUTPUT:



```

ubuntu 20.04 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Activities Terminal Apr 27 14:44
sanmat@sanmat: ~/Desktop/linux-kernel-modules-master

sanmat@sanmat:~/Desktop/linux-kernel-modules-master$ gcc os4.c
sanmat@sanmat:~/Desktop/linux-kernel-modules-master$ ./a.out
Enter directory ('.' for current directory): /home/sanmat/Desktop/linux-kernel-modules-master
Enter date: 14
Enter month: 04
Enter year: 2022
File: dfs-tree-tasks
File: README.md
File: .
File: .
File: os4.c
File: simple
File: listing-task
File: a.out
File: kernel-data-struct
sanmat@sanmat:~/Desktop/linux-kernel-modules-master$ ./a.out
Enter directory ('.' for current directory): /home/sanmat/Desktop/linux-kernel-modules-master
Enter date: 27
Enter month: 04
Enter year: 2022
sanmat@sanmat:~/Desktop/linux-kernel-modules-master$ ./a.out
Enter directory ('.' for current directory): /home/sanmat/Desktop/linux-kernel-modules-master
Enter date: 26
Enter month: 04
Enter year: 2022
File: .
File: .
File: os4.c
File: a.out
sanmat@sanmat:~/Desktop/linux-kernel-modules-master$

```