

Nama : Afrizal Eka Putra
NIM : L200180075
Kelas : A

TUGAS PRAKTIKUM SO MODUL 8

The screenshot shows a terminal window in Oracle VM VirtualBox. The top part shows the source code of a C program named `stat.c` in the `dirlist.c` file. The code includes `<stdio.h>`, `<dirent.h>`, and `<stdlib.h>`. It defines a `main` function that takes an argument `argc` and a pointer `argv`. It uses `opendir` to open a directory, `readdir` to read directory entries, and `printf` to print the directory name. It also includes a `while` loop to iterate through the directory entries and print their details.

The bottom part of the screenshot shows the compilation and execution of the program. The command `gcc stat.c -o stat` is used to compile the program. The output shows several warnings from the compiler, indicating that the format specifiers `%d` are used for arguments of type `__blksize_t`, `__blkcnt_t`, `__ino_t`, `__off_t`, and `__link_t`, which are all long integers. The program is then executed with `./a.out stat.c`, and the output shows the details of the file `stat.c`, including its permissions, file type, and various statistics.

```
root@cecylia-VirtualBox: /home/cecylia
File Edit View Search Terminal Help
GNU nano 2.9.3 dirlist.c
#include <stdio.h>
#include <dirent.h>
#include <stdlib.h>
int main(int argc, char *argv[]){
    struct dirent *dptr;
    DIR *dname;

    if (argc != 2)
    {
        printf("Usage : ./a.out <dirname>\n");
        exit(-1);
    }
    if((dname = opendir(argv[1])) == NULL)
    {
        perror(argv[1]);
        exit(-1);
    }
    while (dptr=readdir(dname))
    {
        printf("%s\n", dptr->d_name);
        closedir(dname);
    }
}
```

```
root@cecylia-VirtualBox:/home/cecylia# gcc stat.c -o stat
stat.c: In function 'main':
stat.c:19:31: warning: format '%d' expects argument of type 'int', but argument 2 has type '__blksize_t {aka long int}' [-Wformat=]
    printf("Block size : %d\n", file.st_blksize);
                               ^~
stat.c:20:37: warning: format '%d' expects argument of type 'int', but argument 2 has type '__blkcnt_t {aka long int}' [-Wformat=]
    printf("Blocks allocated : %d\n", file.st_blocks);
                                   ^~
stat.c:21:30: warning: format '%d' expects argument of type 'int', but argument 2 has type '__ino_t {aka long unsigned int}' [-Wformat=]
    printf("Inode no. : %d\n", file.st_ino);
                               ^~
stat.c:24:30: warning: format '%d' expects argument of type 'int', but argument 2 has type '__off_t {aka long int}' [-Wformat=]
    printf("File size : %d bytes\n", file.st_size);
                               ^~
stat.c:25:26: warning: format '%d' expects argument of type 'int', but argument 2 has type '__link_t {aka long unsigned int}' [-Wformat=]
    printf("No. of links : %d\n", file.st_nlink);
                               ^~
root@cecylia-VirtualBox:/home/cecylia# ./a.out stat.c
User id : 0
Group id : 0
Block size : 4096
Blocks allocated : 8
Inode no. : 292558
Last accessed : Sun Dec 1 19:00:35 2019
Last modified : Sat Nov 23 22:42:22 2019
File size : 1473 bytes
No. of links : 1
Permissions : -rw-r--r--
File type : Regular
root@cecylia-VirtualBox:/home/cecylia#
```

```
Ubuntu [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

Activities Terminal Min 19:03 ●
root@cecylia-VirtualBox: /home/cecylia

File Edit View Search Terminal Help
root@cecylia-VirtualBox: /home/cecylia# nano stat.c
root@cecylia-VirtualBox: /home/cecylia# gcc stat.c -o stat
stat.c: In function 'main':
stat.c:19:31: warning: format '%d' expects argument of type 'int', but argument 2 has type '__blksize_t {aka long int}' [-Wformat=]
printf("Block size : %d\n", file.st_blksize);
                             ^~
                             %ld
stat.c:20:37: warning: format '%d' expects argument of type 'int', but argument 2 has type '__blkcnt_t {aka long int}' [-Wformat=]
printf("Blocks allocated : %d\n", file.st_blocks);
                             ^~
                             %ld
stat.c:21:30: warning: format '%d' expects argument of type 'int', but argument 2 has type '__ino_t {aka long unsigned int}' [-Wformat=]
printf("Inode no. : %d\n", file.st_ino);
                             ^~
                             %ld
stat.c:24:30: warning: format '%d' expects argument of type 'int', but argument 2 has type '__off_t {aka long int}' [-Wformat=]
printf("File size : %d bytes\n", file.st_size);
                             ^~
                             %ld
stat.c:25:26: warning: format '%d' expects argument of type 'int', but argument 2 has type '__nlink_t {aka long unsigned int}' [-Wformat=]
printf("No. of links : %d\n", file.st_nlink);
                             ^~
                             %ld
root@cecylia-VirtualBox: /home/cecylia# ./a.out stat.c
User id : 0
Group id : 0
Block size : 4096
Blocks allocated : 8
Inode no. : 292558
Last accessed : Sun Dec 1 19:00:35 2019
File size : 128 bytes
No. of links : 1
Permissions : -rwxr-xr-x
File type : Regular
```

```
Ubuntu [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

Activities Terminal Min 19:02 ●
root@cecylia-VirtualBox: /home/cecylia

GNU nano 2.9.3 stat.c

printf("Group id : %d\n", file.st_gid);
printf("Block size : %d\n", file.st_blksize);
printf("Blocks allocated : %d\n", file.st_blocks);
printf("Inode no. : %d\n", file.st_ino);
printf("Last accessed : %s", ctime(&file.st_atime));
printf("Last modified : %s", ctime(&file.st_mtime));
printf("File size : %d bytes\n", file.st_size);
printf("No. of links : %d\n", file.st_nlink);
printf("Permissions : ");
printf(" (%s_ISDIR(file.st_mode) ? "d" : "-");
printf(" (%s_IRUSR ? "r" : "-");
printf(" (%s_IWUSR ? "w" : "-");
printf(" (%s_IXUSR ? "x" : "-");
printf(" (%s_IRGRP ? "r" : "-");
printf(" (%s_IWGRP ? "w" : "-");
printf(" (%s_IXGRP ? "x" : "-");
printf(" (%s_IROTH ? "r" : "-");
printf(" (%s_IWOTH ? "w" : "-");
printf(" (%s_IXOTH ? "x" : "-");
printf("\n");
if(file.st_mode & S_IFREG)
printf("File type : Regular\n");
if(file.st_mode & S_IFDIR)
printf("File type : Directory\n");
```

```
root@cecyllia-VirtualBox: /home/cecyllia
GNU nano 2.9.3 stat.c
#include <stdio.h>
#include <sys/stat.h>
#include <stdlib.h>
#include <time.h>

int main(int argc, char*argv[]) {
    struct stat
    file; int n;
    if (argc !=2)
    {
        printf("Usage: ./a.out <filename>\n"); exit(-1);
    }
    if ((n = stat(argv[1], &file)) == -1)
    {
        perror(argv[1]);
        exit(-1);
    }
    printf("User id : %d\n", file.st_uid);
    printf("Group id : %d\n", file.st_gid);
    printf("Block size : %d\n", file.st_blksize);
    printf("Blocks allocated : %d\n", file.st_blocks);
    printf("Inode no. : %d\n", file.st_ino);
    printf("Last accessed : %s", ctime(&(file.st_atime)));
    printf("Last modified : %s", ctime(&(file.st_mtime)));
    printf("File size : %d bytes\n", file.st_size);
    printf("No. of Links : %d\n", file.st_nlink);
    printf("Permissions : ");
    printf(("%_15DIR(file.st_mode) ? "d" : "-");
    printf( (file.st_mode & S_IRUSR) ? "r" : "-");
    printf( (file.st_mode & S_IWUSR) ? "w" : "-");
    printf( (file.st_mode & S_IXUSR) ? "x" : "-");
    printf("\n");
}

root@cecyllia-VirtualBox:/home/cecyllia# nano dirlist.c
root@cecyllia-VirtualBox:/home/cecyllia# gcc dirlist.c
root@cecyllia-VirtualBox:/home/cecyllia# ./a.out /home/cecyllia
a.out
.bashrc
.profile
hello.c
stat.c
dirlist
stat.c.save
.bash_history
Desktop
Downloads
.bash_logout
dirlist.c
Pictures
.sudo_as_admin_successful
snap
Music
.cache
.gnupg
.config
.ICEauthority
Public
.local
hello
Videos
Templates
.
Documents
.mozilla
.ssh
stat
root@cecyllia-VirtualBox:/home/cecyllia#
```

Maaf kak sebelumnya kalo usernya atas nama cecyllia, karena pakai linux di laptop saya tidak bisa.

Terus pas mencoba di laptop cecyllia pakai username saya juga tidak bisa.

Tapi ini buat ulang kok kak.