

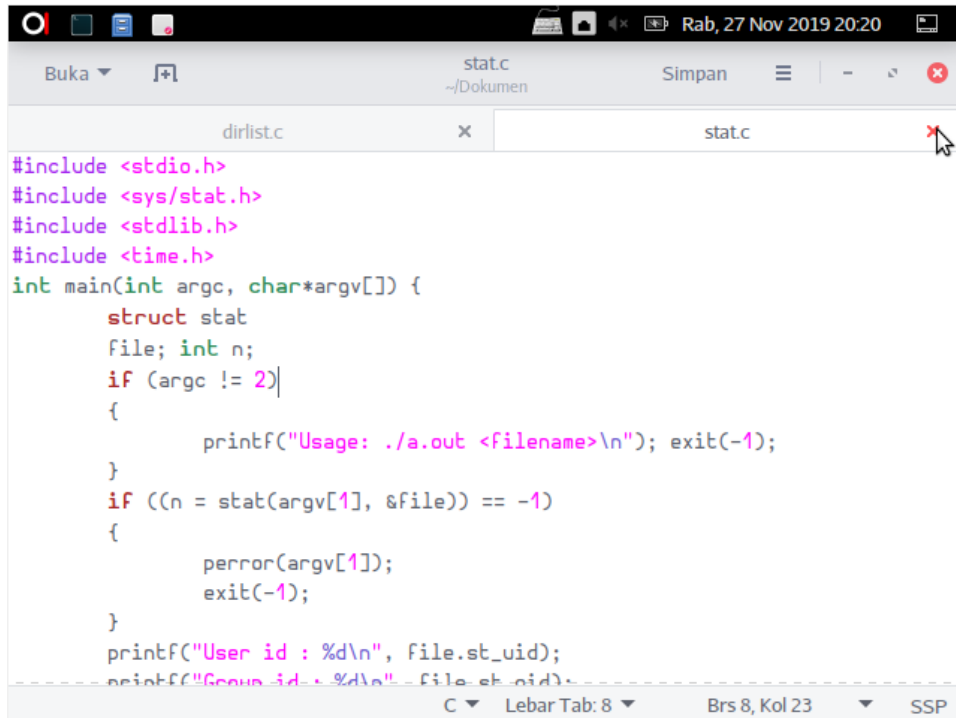
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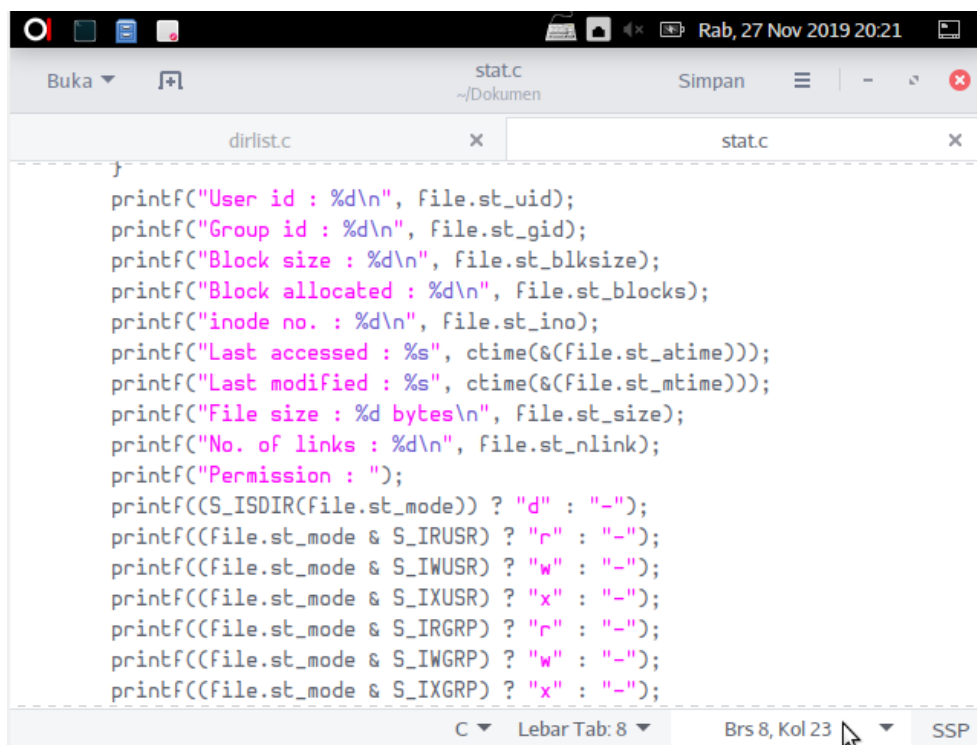
Kelas : D

## TUGAS PRAKTIKUM SISTEM OPERASI

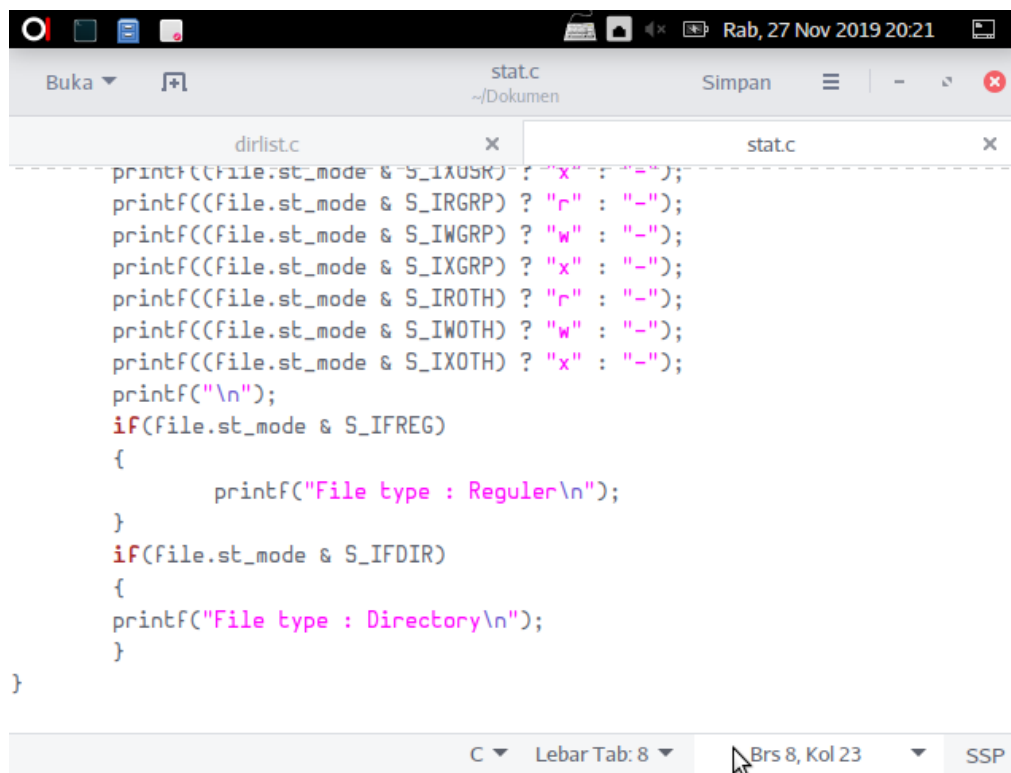
### 1. Stat.c



```
#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);
```

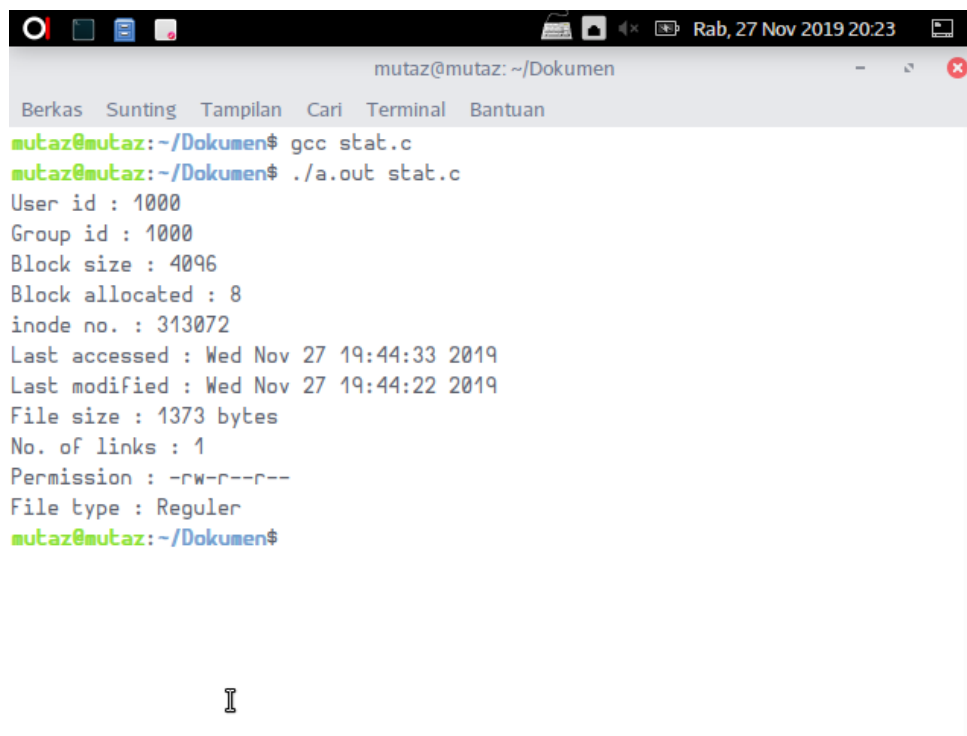


```
    printf("User id : %d\n", file.st_uid);
    printf("Group id : %d\n", file.st_gid);
    printf("Block size : %d\n", file.st_blksize);
    printf("Block allocated : %d\n", file.st_blocks);
    printf("inode no. : %d\n", file.st_ino);
    printf("Last accessed : %s", ctime(&(file.st_atime)));
    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("Permission : ");
    printf((S_ISDIR(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((file.st_mode & S_IRGRP) ? "r" : "-");
    printf((file.st_mode & S_IWGRP) ? "w" : "-");
    printf((file.st_mode & S_IXGRP) ? "x" : "-");
```



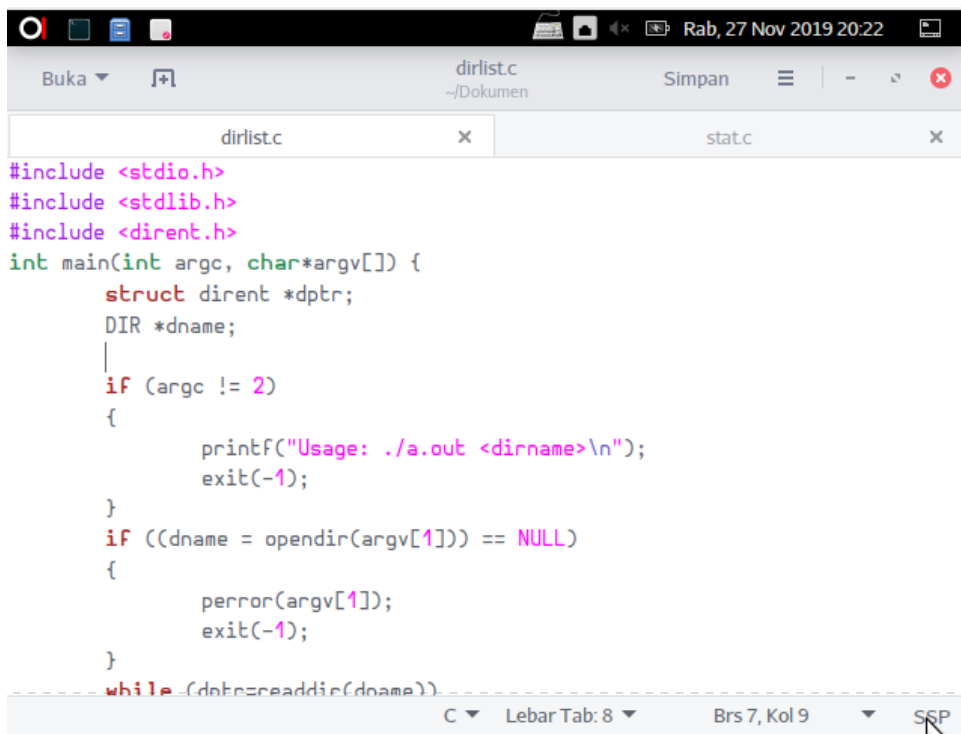
```
printf((File.st_mode & S_IXUSR) ? "x" : "-");
printf((File.st_mode & S_IRGRP) ? "r" : "-");
printf((File.st_mode & S_IWGRP) ? "w" : "-");
printf((File.st_mode & S_IXGRP) ? "x" : "-");
printf((File.st_mode & S_IROTH) ? "r" : "-");
printf((File.st_mode & S_IWOTH) ? "w" : "-");
printf((File.st_mode & S_IXOTH) ? "x" : "-");
printf("\n");
if(File.st_mode & S_IFREG)
{
    printf("File type : Reguler\n");
}
if(File.st_mode & S_IFDIR)
{
    printf("File type : Directory\n");
}
}
```

C Lebar Tab: 8 Brs 8, Kol 23 SSP



```
mutaz@mutaz:~/Dokumen$ gcc stat.c
mutaz@mutaz:~/Dokumen$ ./a.out stat.c
User id : 1000
Group id : 1000
Block size : 4096
Block allocated : 8
inode no. : 313072
Last accessed : Wed Nov 27 19:44:33 2019
Last modified : Wed Nov 27 19:44:22 2019
File size : 1373 bytes
No. of links : 1
Permission : -rw-r--r--
File type : Reguler
mutaz@mutaz:~/Dokumen$
```

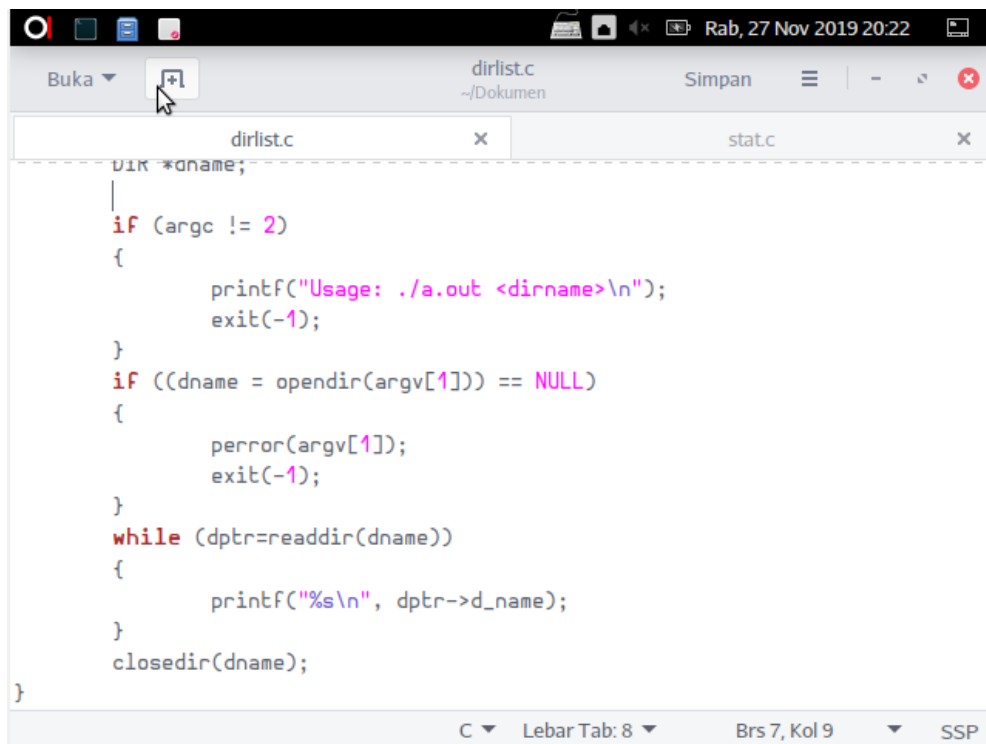
## 2. Dirlist.c



The screenshot shows a code editor window with the title bar "dirlist.c ~/Dokumen". The editor contains the following C code:

```
#include <stdio.h>
#include <stdlib.h>
#include <dirent.h>
int main(int argc, char*argv[]) {
    struct dirent *dp;
    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 (dp=readdir(dname))
```

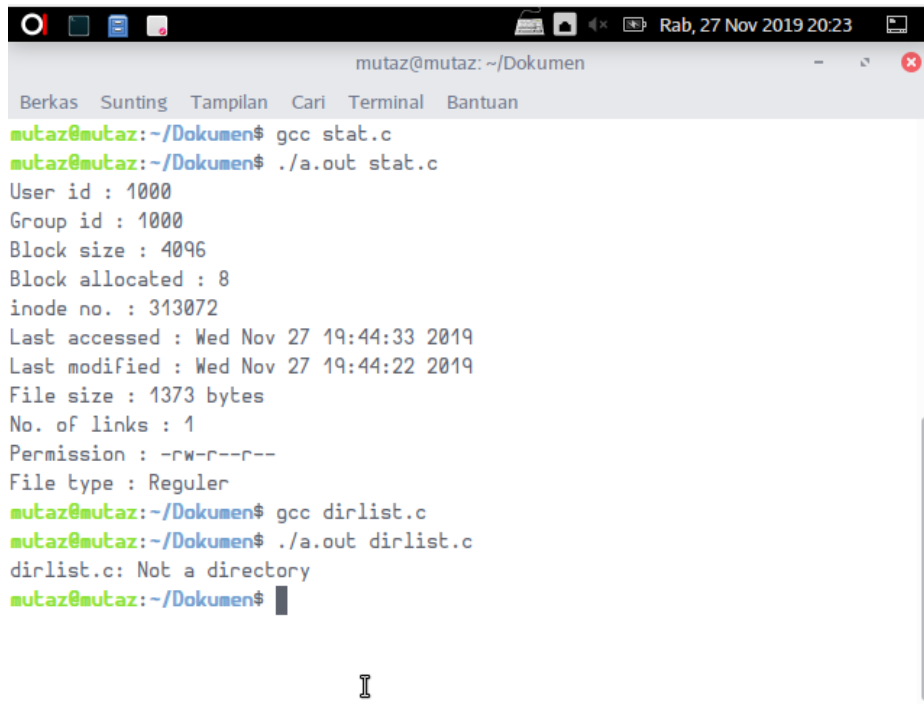
The status bar at the bottom indicates "C", "Lebar Tab: 8", "Brs 7, Kol 9", and "SSP".



The screenshot shows the same code editor window, but with the code scrolled down to show the continuation of the while loop and the closing of the directory:

```
    while (dp=readdir(dname))
    {
        printf("%s\n", dp->d_name);
    }
    closedir(dname);
}
```

The status bar at the bottom remains the same: "C", "Lebar Tab: 8", "Brs 7, Kol 9", and "SSP".



A terminal window titled "mutaz@mutaz: ~/Dokumen" with a menu bar containing "Berkas", "Sunting", "Tampilan", "Cari", "Terminal", and "Bantuan". The window shows the execution of two C programs. The first program, "stat.c", is compiled with "gcc stat.c" and executed with "./a.out stat.c", displaying detailed file statistics for "stat.c". The second program, "dirlist.c", is compiled with "gcc dirlist.c" and executed with "./a.out dirlist.c", resulting in the error message "dirlist.c: Not a directory". The terminal text is as follows:

```
mutaz@mutaz:~/Dokumen$ gcc stat.c
mutaz@mutaz:~/Dokumen$ ./a.out stat.c
User id : 1000
Group id : 1000
Block size : 4096
Block allocated : 8
inode no. : 313072
Last accessed : Wed Nov 27 19:44:33 2019
Last modified : Wed Nov 27 19:44:22 2019
File size : 1373 bytes
No. of links : 1
Permission : -rw-r--r--
File type : Regular
mutaz@mutaz:~/Dokumen$ gcc dirlist.c
mutaz@mutaz:~/Dokumen$ ./a.out dirlist.c
dirlist.c: Not a directory
mutaz@mutaz:~/Dokumen$
```