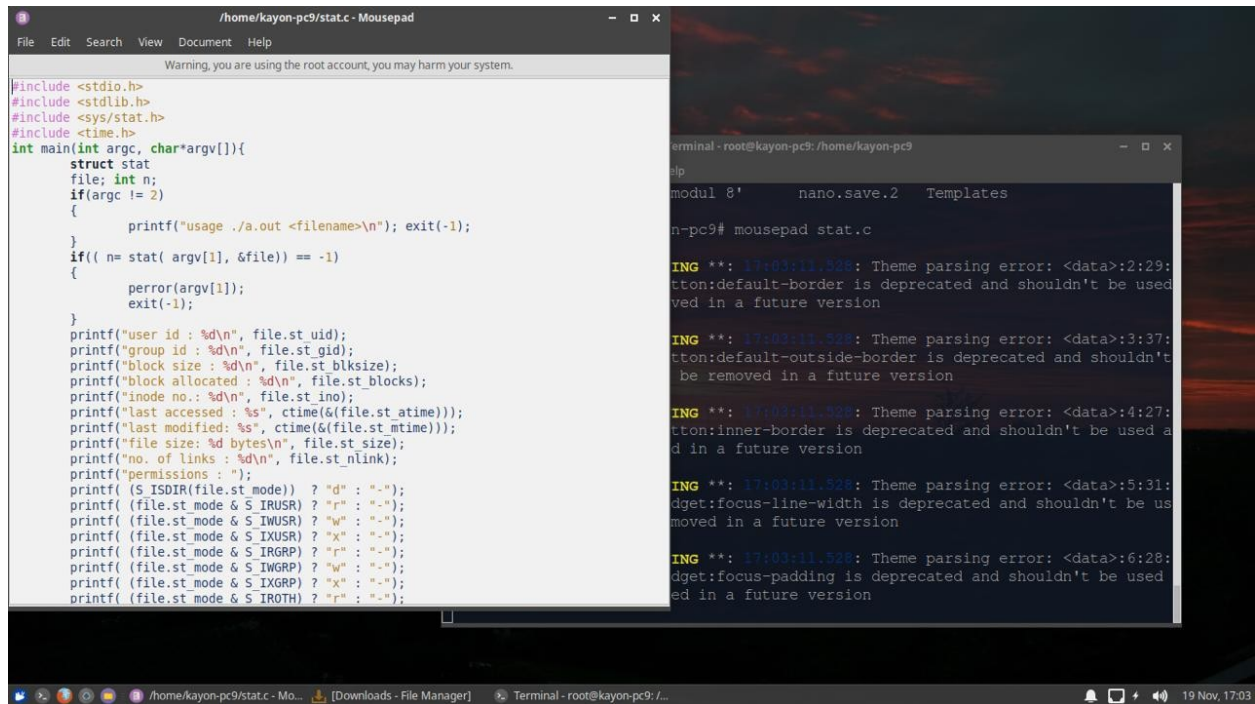


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Kelas : B
Modul : Tugas Modul Ke-8 (No.4 dan 5)

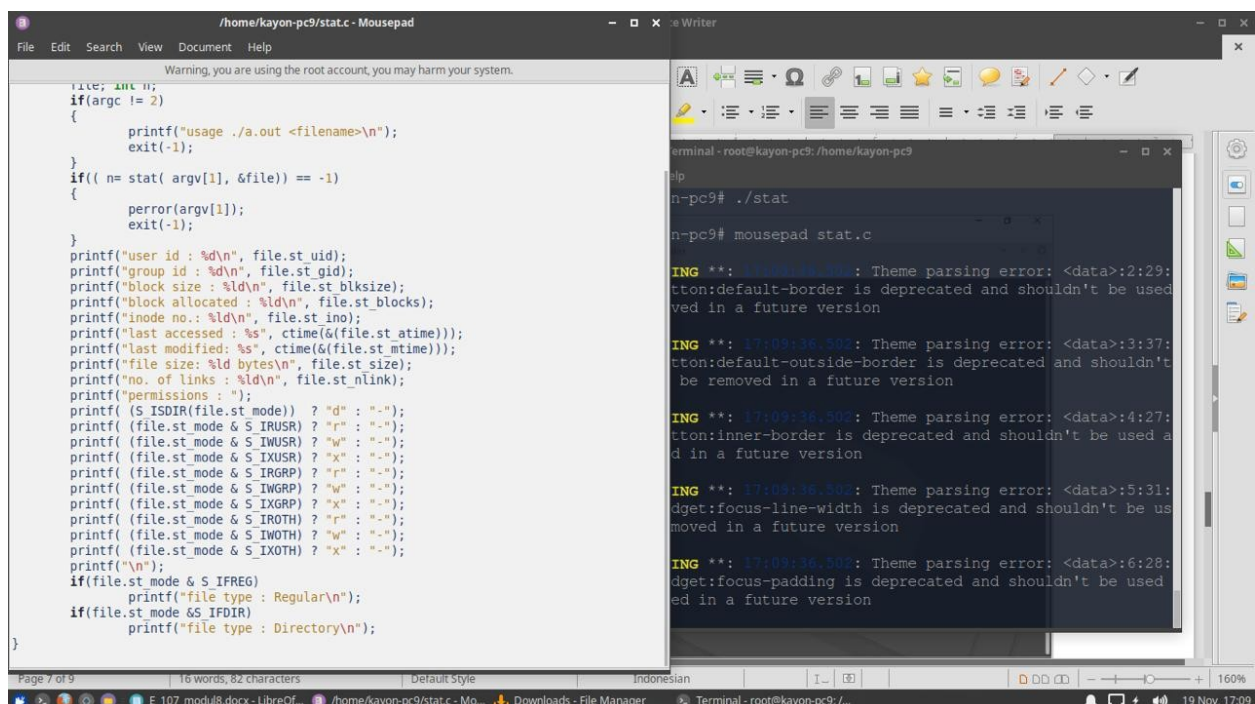
4. Menampilkan status file menggunakan perintah system call 'stat'



```
Warning, you are using the root account, you may harm your system.

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

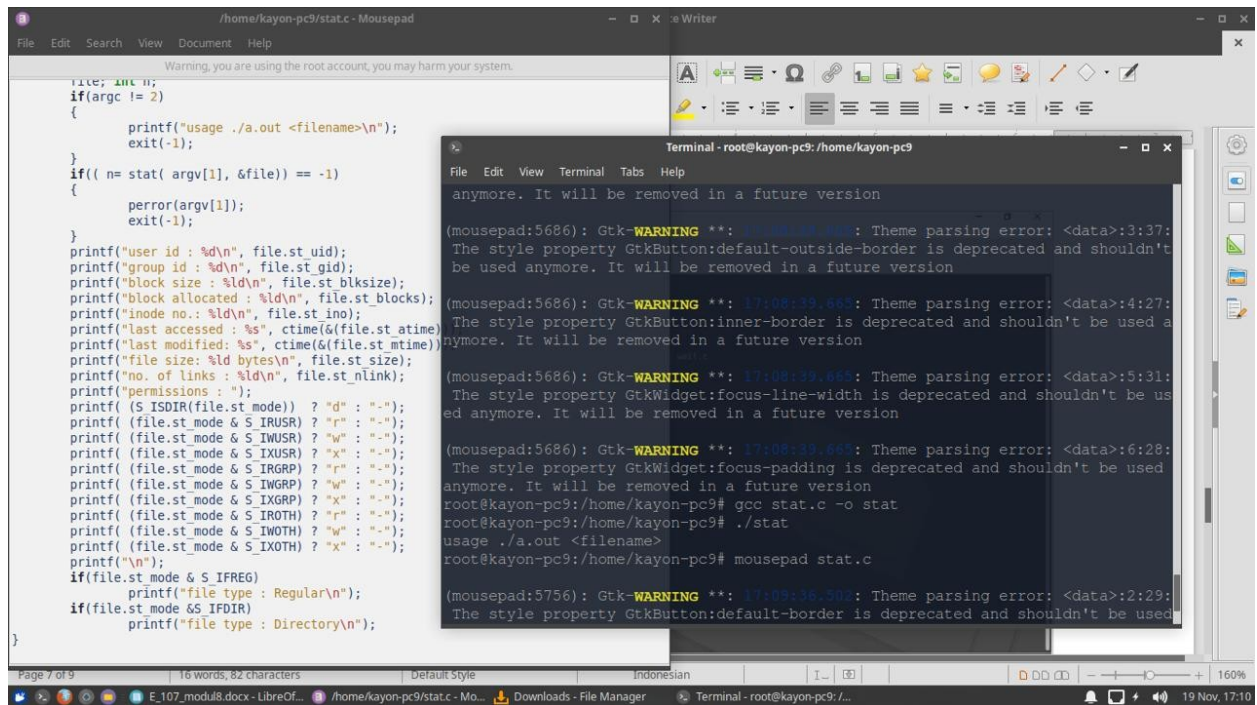
int main(int argc, char*argv[]){
    struct stat
    file; int n;
    if(argc != 2)
    {
        printf("usage ./a.out <filename>\n"); exit(-1);
    }
    if((n= stat( argv[1], &file)) == -1)
    {
        perror(argv[1]);
        exit(-1);
    }
    printf("user id : %d\n", file.st_uid);
    printf("group id : %d\n", file.st_gid);
    printf("block size : %d\n", file.st_blksize);
    printf("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("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");
}
```



```
Warning, you are using the root account, you may harm your system.

#include <stdio.h>
#include <stdlib.h>
#include <sys/stat.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("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("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");
}
```



The screenshot shows a Linux desktop environment. In the foreground, a code editor window titled "/home/kayon-pc9/stat.c - Mousepad" is open. It contains C code for a program that prints file statistics. The code includes headers like `<stdio.h>`, `<unistd.h>`, and `<sys/stat.h>`. It defines a `main` function that takes command-line arguments and prints file information such as user ID, group ID, block size, inode number, last accessed time, last modified time, file size, number of links, permissions, and file type (regular or directory).

In the background, a terminal window titled "Terminal - root@kayon-pc9: /home/kayon-pc9" is open. It shows the execution of the `stat.c` program. The output displays file statistics for `stat.c` and `stat`. The terminal also shows several GTK warnings about deprecated style properties.

```
Warning, you are using the root account, you may harm your system.

#include <stdio.h>
#include <unistd.h>
#include <sys/stat.h>
int main(int argc, char*argv[])
{
    struct stat st;
    DIR *dname;

    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 : %ld\n", file.st_blksize);
    printf("inode no. : %ld\n", file.st_ino);
    printf("last accessed : %s", ctime(&(file.st_atime)));
    printf("last modified : %s", ctime(&(file.st_mtime)));
    printf("file size : %ld bytes\n", file.st_size);
    printf("no. of links : %ld\n", file.st_nlink);
    printf("permissions : ");
    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_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 : Regular\n");
    if(file.st_mode & S_IFDIR)
        printf("file type : Directory\n");
}
```

```
any more. It will be removed in a future version

(mousepad:5686): Gtk-WARNING **: 17:08:33.883: Theme parsing error: <data>:3:37:
The style property GtkButton:default-outer-border is deprecated and shouldn't
be used anymore. It will be removed in a future version

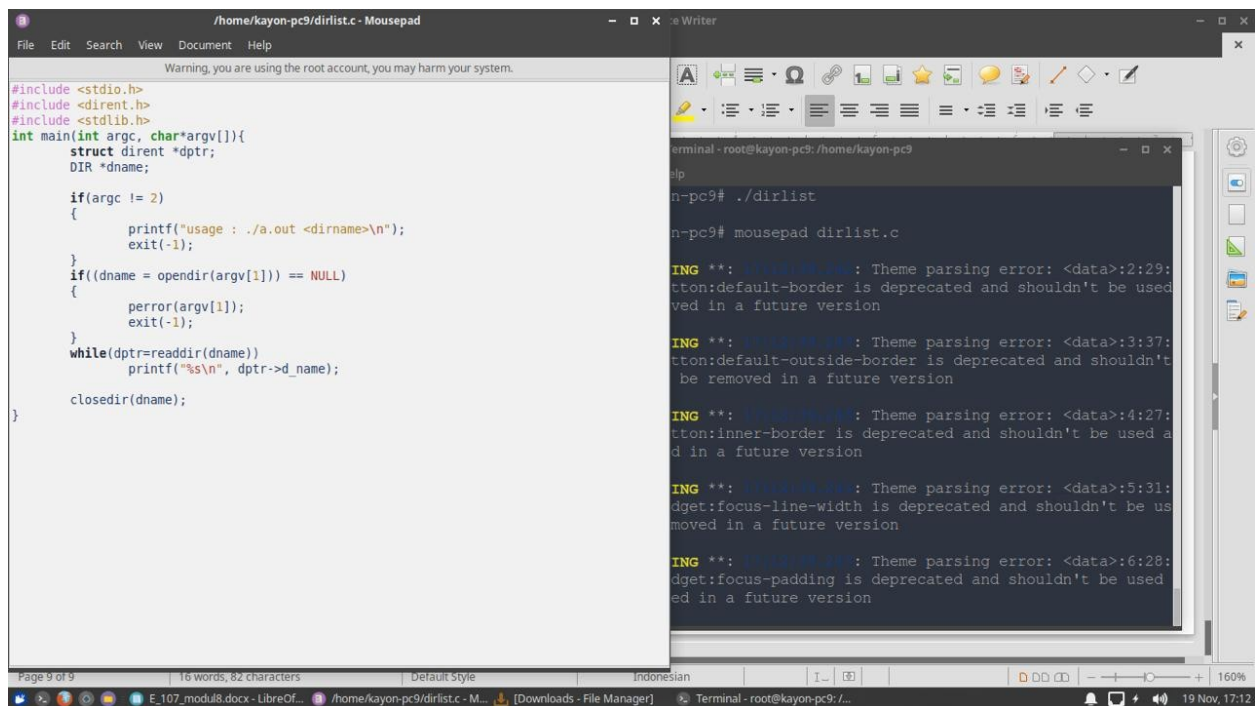
(mousepad:5686): Gtk-WARNING **: 17:08:33.883: Theme parsing error: <data>:4:27:
The style property GtkButton:inner-border is deprecated and shouldn't be used
anymore. It will be removed in a future version

(mousepad:5686): Gtk-WARNING **: 17:08:33.883: Theme parsing error: <data>:5:31:
The style property GtkWidget:focus-line-width is deprecated and shouldn't be
used anymore. It will be removed in a future version

(mousepad:5686): Gtk-WARNING **: 17:08:33.883: Theme parsing error: <data>:6:28:
The style property GtkWidget:focus-padding is deprecated and shouldn't be used
anymore. It will be removed in a future version
root@kayon-pc9:/home/kayon-pc9# gcc stat.c -o stat
root@kayon-pc9:/home/kayon-pc9# ./stat
usage ./a.out <filename>
root@kayon-pc9:/home/kayon-pc9# mousepad stat.c

(mousepad:5756): Gtk-WARNING **: 17:09:36.302: Theme parsing error: <data>:2:29:
The style property GtkButton:default-border is deprecated and shouldn't be used
in a future version
```

5. Menampilkan isi direktori menggunakan perintah system call 'readdir' :



The screenshot shows a Linux desktop environment. In the foreground, a code editor window titled "/home/kayon-pc9/dirlist.c - Mousepad" is open. It contains C code for a program that lists the contents of a directory. The code includes headers like `<stdio.h>`, `<dirent.h>`, and `<stdlib.h>`. It defines a `main` function that takes command-line arguments and prints the contents of the specified directory using the `readdir` function.

In the background, a terminal window titled "Terminal - root@kayon-pc9: /home/kayon-pc9" is open. It shows the execution of the `dirlist.c` program. The output displays the contents of the current directory. The terminal also shows several GTK warnings about deprecated style properties.

```
Warning, you are using the root account, you may harm your system.

#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);
}
```

```
ap
n-pc9# ./dirlist
n-pc9# mousepad dirlist.c

(mousepad:5686): Gtk-WARNING **: 17:08:33.883: Theme parsing error: <data>:2:29:
The style property GtkButton:default-border is deprecated and shouldn't be used
in a future version

(mousepad:5686): Gtk-WARNING **: 17:08:33.883: Theme parsing error: <data>:3:37:
The style property GtkButton:default-outer-border is deprecated and shouldn't
be removed in a future version

(mousepad:5686): Gtk-WARNING **: 17:08:33.883: Theme parsing error: <data>:4:27:
The style property GtkButton:inner-border is deprecated and shouldn't be used
in a future version

(mousepad:5686): Gtk-WARNING **: 17:08:33.883: Theme parsing error: <data>:5:31:
The style property GtkWidget:focus-line-width is deprecated and shouldn't be us
removed in a future version

(mousepad:5686): Gtk-WARNING **: 17:08:33.883: Theme parsing error: <data>:6:28:
The style property GtkWidget:focus-padding is deprecated and shouldn't be used
in a future version
```