

NAMA : ELVY RAHMATILLAH IMAMI

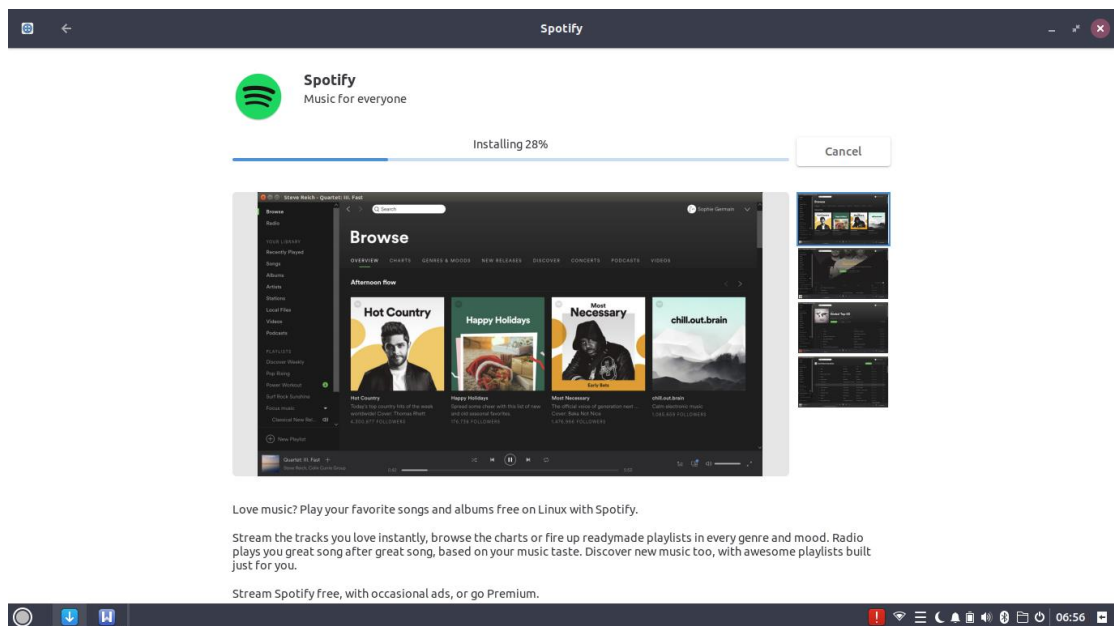
NIM : L200170041

## MODUL 6

### INSTAL APLIKASI DI LINUX

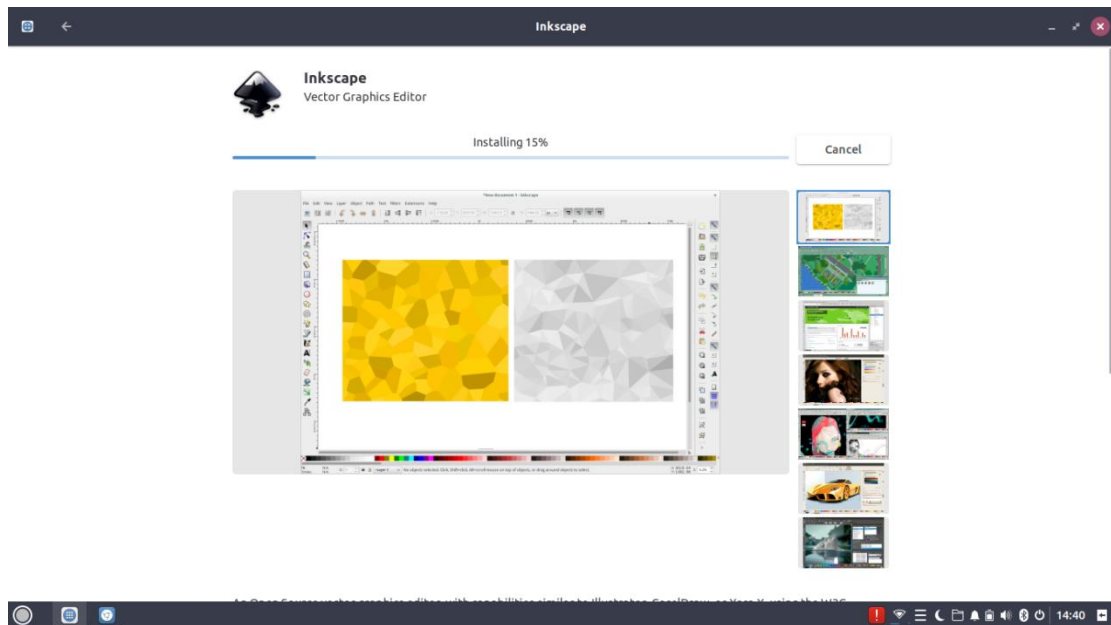
#### 1. SPOTIFY

Berfungsi untuk memutar musik tanpa membayar, tetapi juga bisa memilih untuk mengupdate ke Spotify premium.



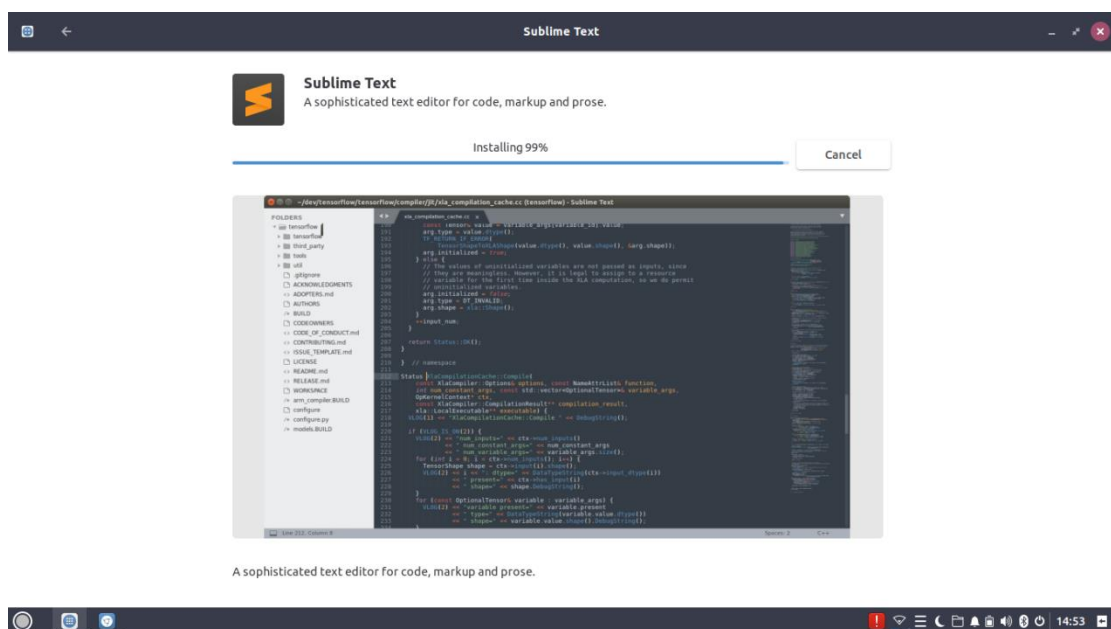
#### 2. INKSCAPE

Berfungsi untuk membuat suatu desain seperti logo, gambar vektor, teks vektor, kartun, atau lukisan kompleks.



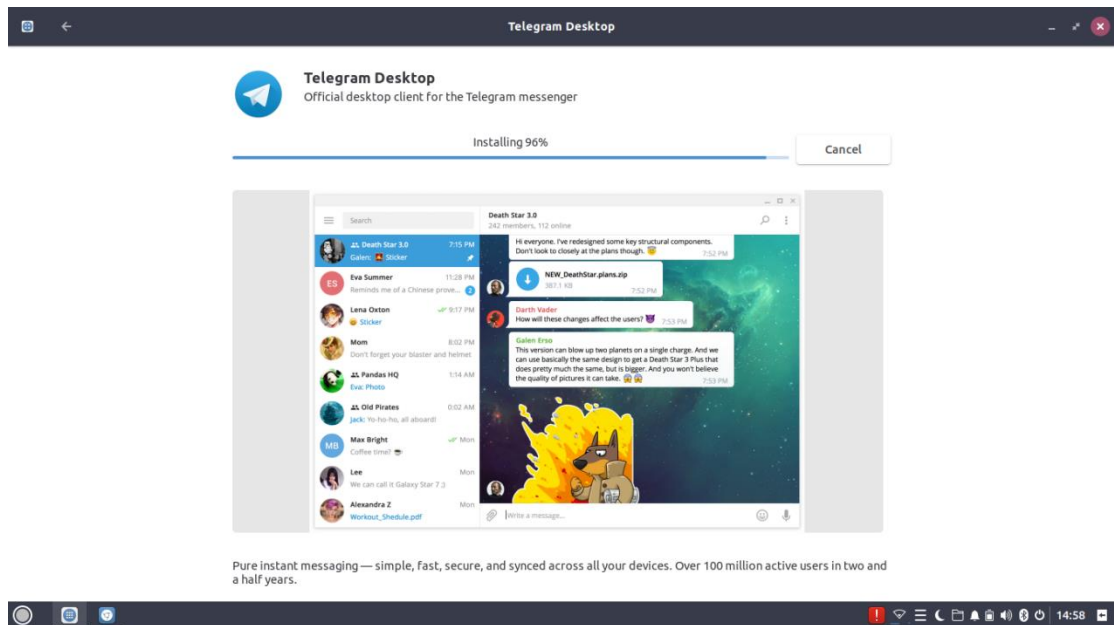
### 3. SUBLIME TEKS

Berfungsi untuk teks editor untuk berbagai bahasa pemrograman.



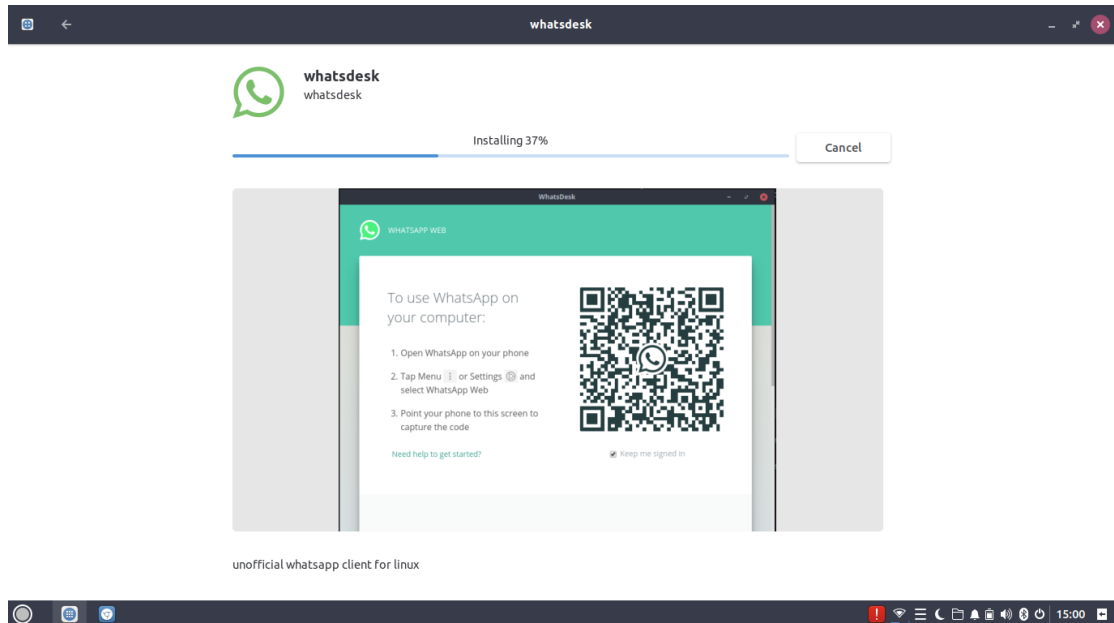
### 4. TELEGRAM

Berfungsi untuk mengirimkan pesan, dan bertukar file, baik itu gambar, video, audio dan juga dokumen.



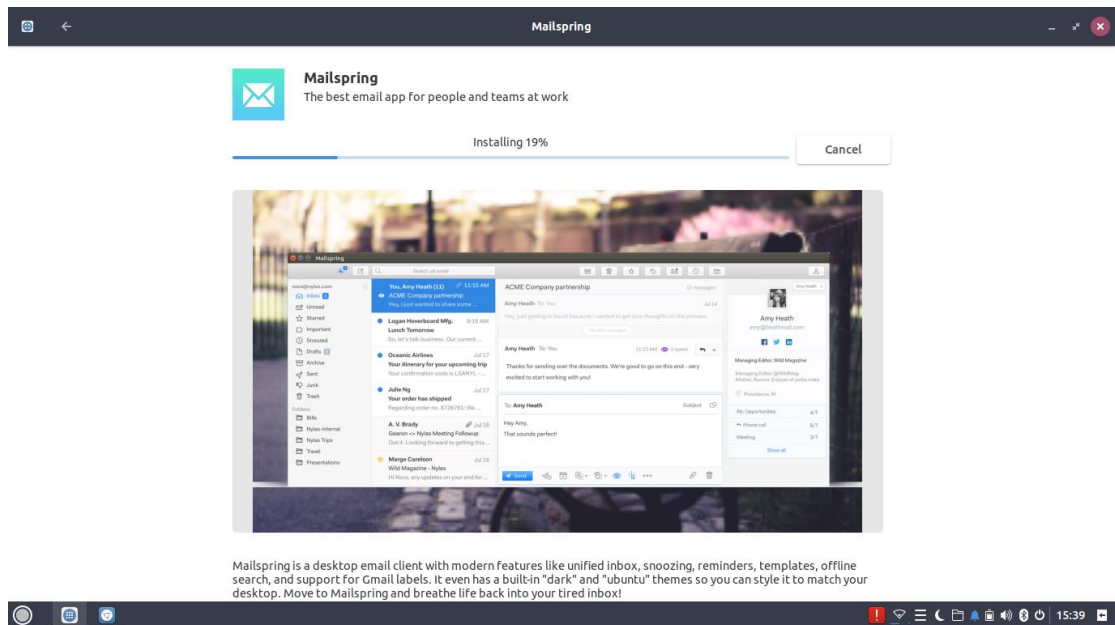
## 5. WHATSDESK

Berfungsi untuk mengirim pesan atau bertukar informasi baik berupa gambar, video, audio, ataupun dokumen.



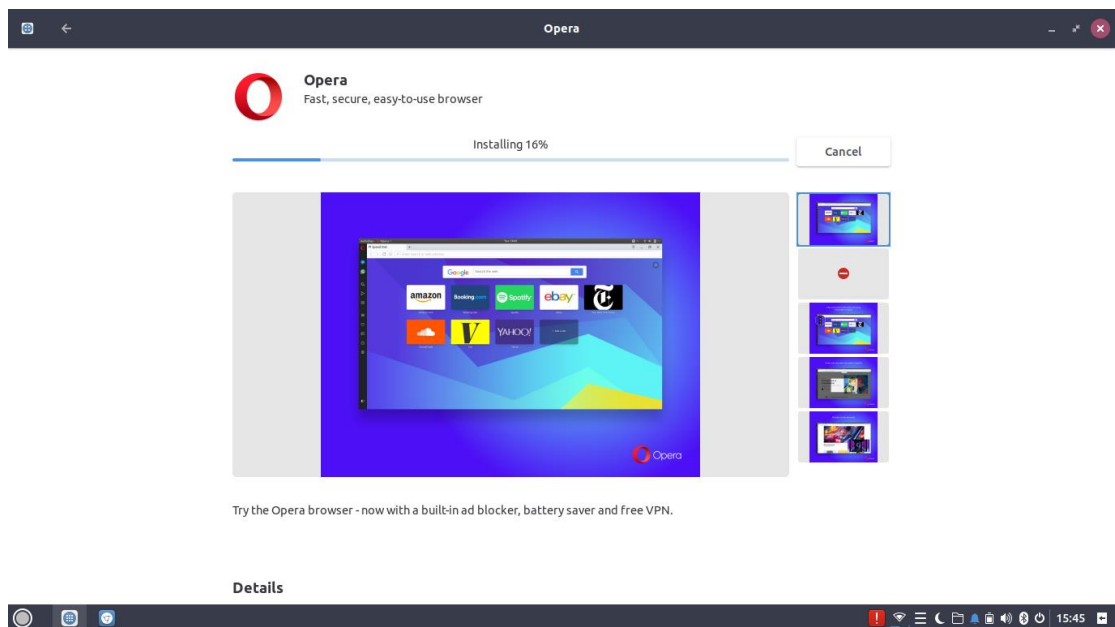
## 6. MAILSPRING

Berfungsi untuk mengirim dan bertukar file baik berupa gambar maupun dokumen



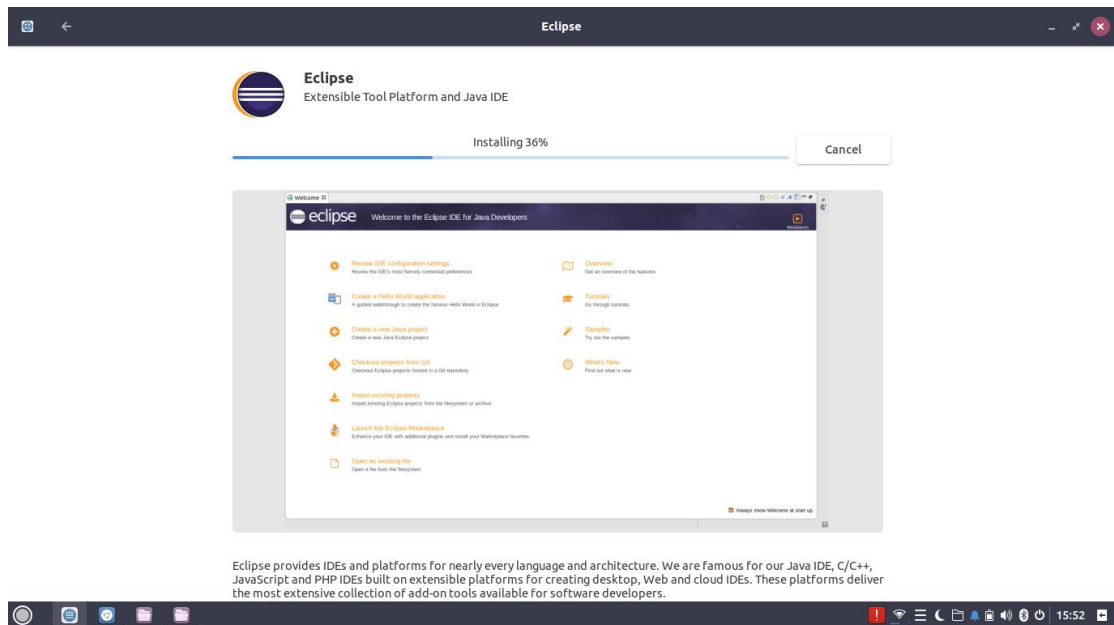
## 7. OPERA

Berfungsi untuk mencari berbagai informasi di internet



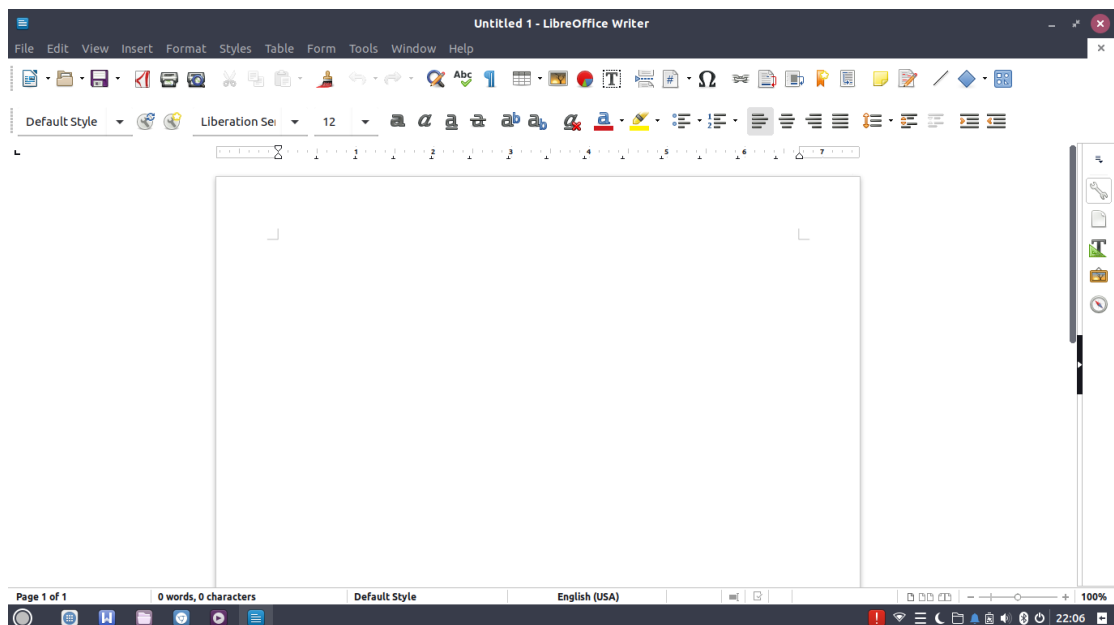
## 8. ECLIPSE

Berfungsi untuk teks editor menggunakan bahasa pemrograman java



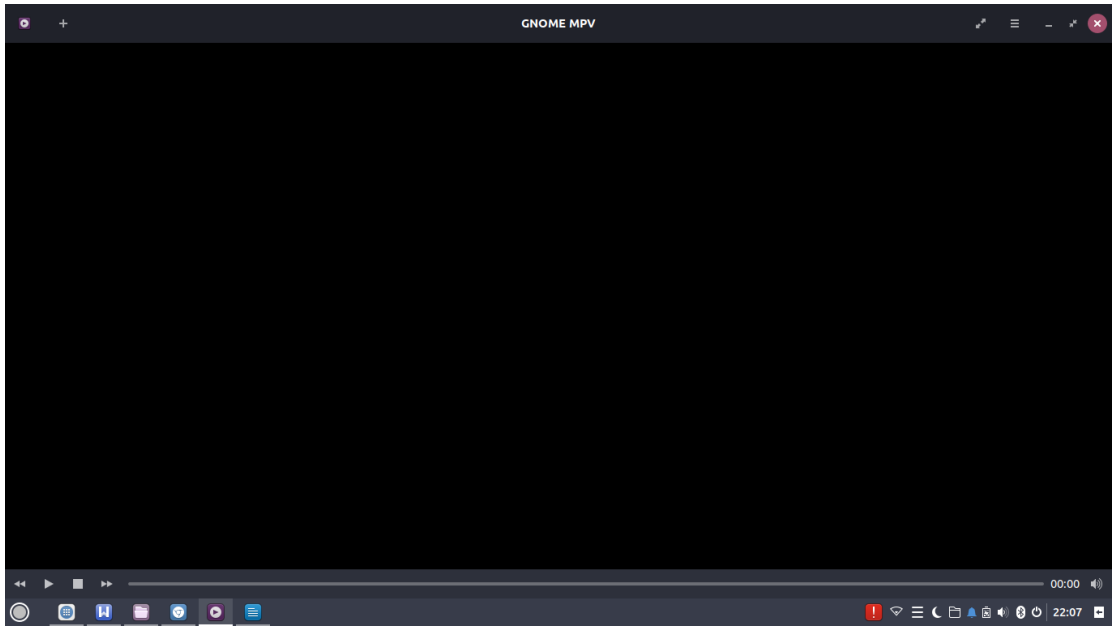
## 9. LIBREOFFICE WRITE

Berfungsi untuk teks editor menulis suatu dokumen



## 10. GNOME MPV

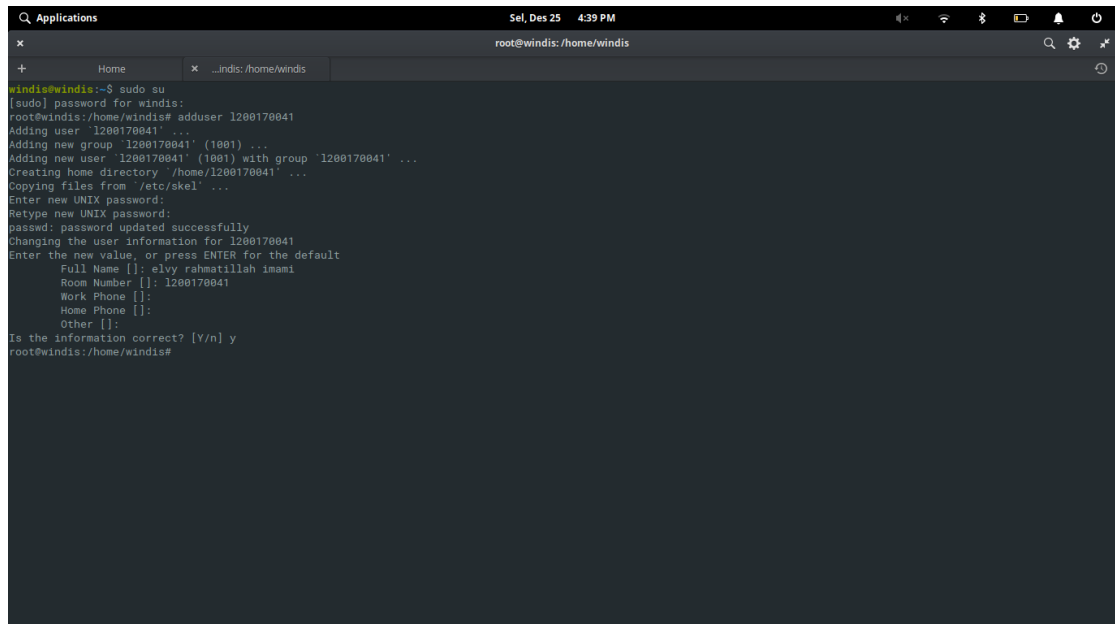
Berfungsi untuk menampilkan video yang akan di putar



## MODUL 7

### PRAKTIKUM 1

1. Membuat user baru dengan perintah “adduser l200170115”
2. Masukan password dan memasukan data diri



```
windis@windis:~$ sudo su
[sudo] password for windis:
root@windis:/home/windis# adduser l200170041
Adding user `l200170041' ...
Adding new group `l200170041' (1001) ...
Adding new user `l200170041' (1001) with group `l200170041' ...
Creating home directory `/home/l200170041' ...
Copying files from `/etc/skel' ...
Enter new UNIX password:
Retype new UNIX password:
passwd: password updated successfully
Changing the user information for l200170041
Enter the new value, or press ENTER for the default
  Full Name []: elvy rahmatillah imami
    Room Number []: l200170041
      Work Phone []:
        Home Phone []:
          Other []:
Is the information correct? [Y/n] y
root@windis:/home/windis#
```

3. Keluar dari terminal dan kemudian log Out.
4. Lalu masuk ke jendela login, dan cobalah untuk masuk menggunakan user dan Password yang baru di buat.

### PRAKTIKUM 2

1. Membuat file latihan dengan perintah “touch latihan”
2. Ketik “chmod 666 latihan”
3. Lihat hasilnya dengan perintah “ls -l”
4. Ketik perintah “chmod 640 latihan”
5. Lihat hasilnya dengan perintah “ls -l”
6. Ketik perintah “chmod 111 latihan”
7. Lihat hasilnya dengan perintah “ls -l”

```
Applications Sel, Des 25 4:43 PM Home:ls
+ x Home:ls
1200170041@windis:~$ touch latihan
1200170041@windis:~$ chmod 666 latihan
1200170041@windis:~$ ls -l
total 28
drwxr-xr-x 2 1200170041 1200170041 4096 Des 25 16:40 Documents
drwxr-xr-x 2 1200170041 1200170041 4096 Des 25 16:40 Downloads
-rw-rw-rw- 1 1200170041 1200170041 0 Des 25 16:42 latihan
drwxr-xr-x 2 1200170041 1200170041 4096 Des 25 16:40 Music
drwxr-xr-x 3 1200170041 1200170041 4096 Des 25 16:41 Pictures
drwxr-xr-x 2 1200170041 1200170041 4096 Des 25 16:40 Public
drwxr-xr-x 2 1200170041 1200170041 4096 Des 25 16:40 Templates
drwxr-xr-x 2 1200170041 1200170041 4096 Des 25 16:40 Videos
1200170041@windis:~$ chmod 640 latihan
1200170041@windis:~$ ls -l
total 28
drwxr-xr-x 2 1200170041 1200170041 4096 Des 25 16:40 Documents
drwxr-xr-x 2 1200170041 1200170041 4096 Des 25 16:40 Downloads
-rw-r--r-- 1 1200170041 1200170041 0 Des 25 16:42 latihan
drwxr-xr-x 2 1200170041 1200170041 4096 Des 25 16:40 Music
drwxr-xr-x 3 1200170041 1200170041 4096 Des 25 16:41 Pictures
drwxr-xr-x 2 1200170041 1200170041 4096 Des 25 16:40 Public
drwxr-xr-x 2 1200170041 1200170041 4096 Des 25 16:40 Templates
drwxr-xr-x 2 1200170041 1200170041 4096 Des 25 16:40 Videos
1200170041@windis:~$ chmod 111 latihan
1200170041@windis:~$ ls -l
total 28
drwxr-xr-x 2 1200170041 1200170041 4096 Des 25 16:40 Documents
drwxr-xr-x 2 1200170041 1200170041 4096 Des 25 16:40 Downloads
-r--r--r-- 1 1200170041 1200170041 0 Des 25 16:42 latihan
drwxr-xr-x 2 1200170041 1200170041 4096 Des 25 16:40 Music
drwxr-xr-x 3 1200170041 1200170041 4096 Des 25 16:41 Pictures
drwxr-xr-x 2 1200170041 1200170041 4096 Des 25 16:40 Public
drwxr-xr-x 2 1200170041 1200170041 4096 Des 25 16:40 Templates
drwxr-xr-x 2 1200170041 1200170041 4096 Des 25 16:40 Videos
1200170041@windis:~$
```

8. Ketik perintah “chmod 222 latihan”
9. Lihat hasilnya dengan perintah “ls -l”
10. Ketik perintah “chmod 333 latihan”
11. Lihat hasilnya dengan perintah “ls -l”

```
1200170041@windis:~$ chmod 222 latihan
1200170041@windis:~$ ls -l
total 28
drwxr-xr-x 2 1200170041 1200170041 4096 Des 25 16:40 Documents
drwxr-xr-x 2 1200170041 1200170041 4096 Des 25 16:40 Downloads
--w--w--w- 1 1200170041 1200170041 0 Des 25 16:42 latihan
drwxr-xr-x 2 1200170041 1200170041 4096 Des 25 16:40 Music
drwxr-xr-x 3 1200170041 1200170041 4096 Des 25 16:41 Pictures
drwxr-xr-x 2 1200170041 1200170041 4096 Des 25 16:40 Public
drwxr-xr-x 2 1200170041 1200170041 4096 Des 25 16:40 Templates
drwxr-xr-x 2 1200170041 1200170041 4096 Des 25 16:40 Videos
1200170041@windis:~$ chmod 333 latihan
1200170041@windis:~$ ls -l
total 28
drwxr-xr-x 2 1200170041 1200170041 4096 Des 25 16:40 Documents
drwxr-xr-x 2 1200170041 1200170041 4096 Des 25 16:40 Downloads
--wx-wx-wx 1 1200170041 1200170041 0 Des 25 16:42 latihan
drwxr-xr-x 2 1200170041 1200170041 4096 Des 25 16:40 Music
drwxr-xr-x 3 1200170041 1200170041 4096 Des 25 16:41 Pictures
drwxr-xr-x 2 1200170041 1200170041 4096 Des 25 16:40 Public
drwxr-xr-x 2 1200170041 1200170041 4096 Des 25 16:40 Templates
drwxr-xr-x 2 1200170041 1200170041 4096 Des 25 16:40 Videos
1200170041@windis:~$
```

### PRAKTIKUM 3

1. Ketik perintah “chmod 000 latihan” (tidak memberikan hak akses)
2. Lihat hasilnya dengan perintah “ls -l latihan”
3. Ketik perintah “chmod +r latihan”(menambah hak akses read)
4. Lihat hasilnya dengan perintah “ls -l latihan”
5. Ketik perintah “chmod +w latihan”(menambah hak akses write)
6. Lihat hasilnya dengan perintah “ls -l latihan”
7. Ketik perintah “chmod +x latihan”(menambah hak akses execute)



8. Lihat hasilnya dengan perintah “ls -l latihan”
9. Ketik perintah “chmod -x latihan”(menghilangkan hak akses execute)
10. Lihat hasilnya dengan perintah “ls -l latihan”
11. Ketik perintah “chmod -w latihan”(menghilangkan hak akses write)
12. Lihat hasilnya dengan perintah “ls -l latihan”
13. Ketik perintah “chmod -r latihan”(menghilangkan hak akses read)
14. Lihat hasilnya dengan perintah “ls -l latihan”

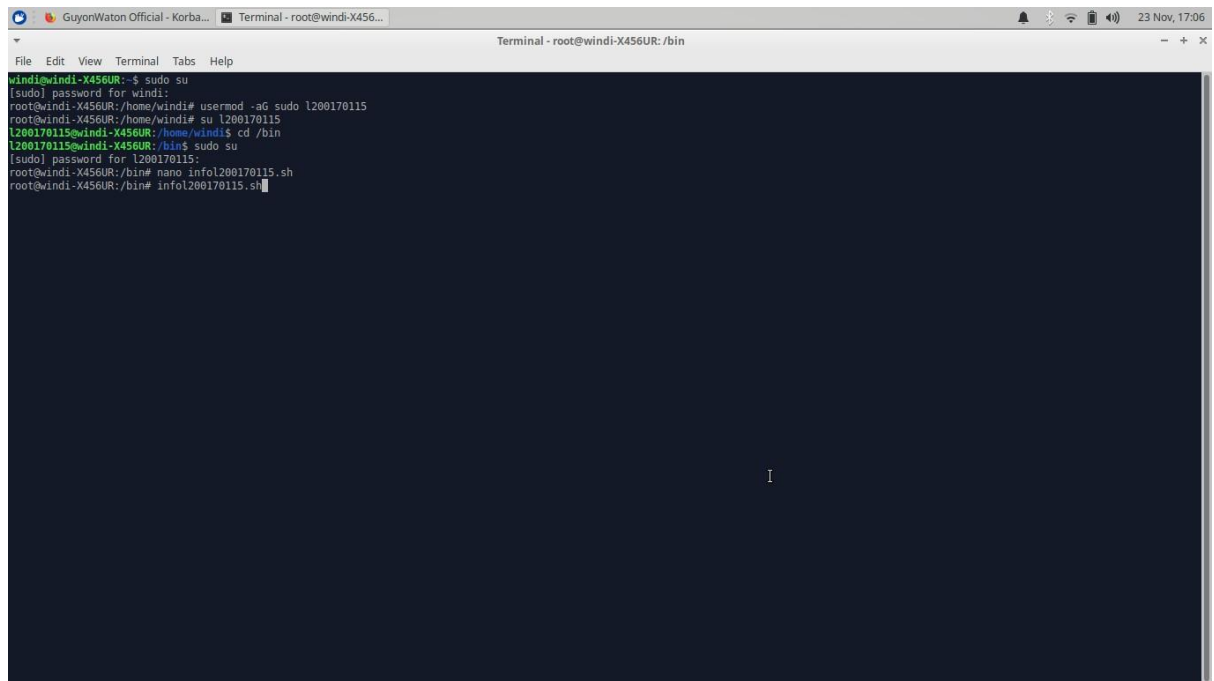
```

l200170041@windis:~$ chmod 000 latihan
l200170041@windis:~$ ls -l latihan
----- 1 l200170041 l200170041 0 Des 25 16:42 latihan
l200170041@windis:~$ chmod +r latihan
l200170041@windis:~$ ls -l latihan
-r--r--r-- 1 l200170041 l200170041 0 Des 25 16:42 latihan
l200170041@windis:~$ chmod +w latihan
l200170041@windis:~$ ls -l latihan
-rw-rw-r-- 1 l200170041 l200170041 0 Des 25 16:42 latihan
l200170041@windis:~$ chmod +x latihan
l200170041@windis:~$ ls -l latihan
-rwxrwxr-x 1 l200170041 l200170041 0 Des 25 16:42 latihan
l200170041@windis:~$ chmod -x latihan
l200170041@windis:~$ ls -l latihan
-rw-rw-r-- 1 l200170041 l200170041 0 Des 25 16:42 latihan
l200170041@windis:~$ chmod -w latihan
l200170041@windis:~$ ls -l latihan
-r--r--r-- 1 l200170041 l200170041 0 Des 25 16:42 latihan
l200170041@windis:~$ chmod -r latihan
l200170041@windis:~$ ls -l latihan
----- 1 l200170041 l200170041 0 Des 25 16:42 latihan
l200170041@windis:~$

```

#### PRAKTIKUM 4

1. Ketik perintah “sudo su” untuk masuk ke root
2. Ketik perintah “usermod -aG sudo l200170115” agar user menjadi sudo
3. Ketik perintah “su l200170115” untuk masuk ke user l200170115
4. Ketik perintah “cd /bin” untuk masuk ke folder bin
5. Ketik perintah “sudo su” untuk masuk ke root menggunakan user baru
6. Ketik perintah “nano infol200170115.sh” untuk membuat file dengan info.sh



```
windi@windi-X456UR:~$ sudo su
[sudo] password for windi:
root@windi-X456UR:/home/windi# usermod -s6 sudo l200170115
root@windi-X456UR:/home/windi# su l200170115
l200170115@windi-X456UR:/home/windi$ cd /bin
l200170115@windi-X456UR:/bin$ sudo su
[sudo] password for l200170115:
root@windi-X456UR:/bin# nano info[l200170115.sh
root@windi-X456UR:/bin# info[l200170115.sh
```

7. Kemudian ketik perintah seperti berikut :

`#!/bin/sh`

`WAKTU=""Tanggal dan jam saat ini : \c"`

`JMLUSER=""Jumlah user : \c"`

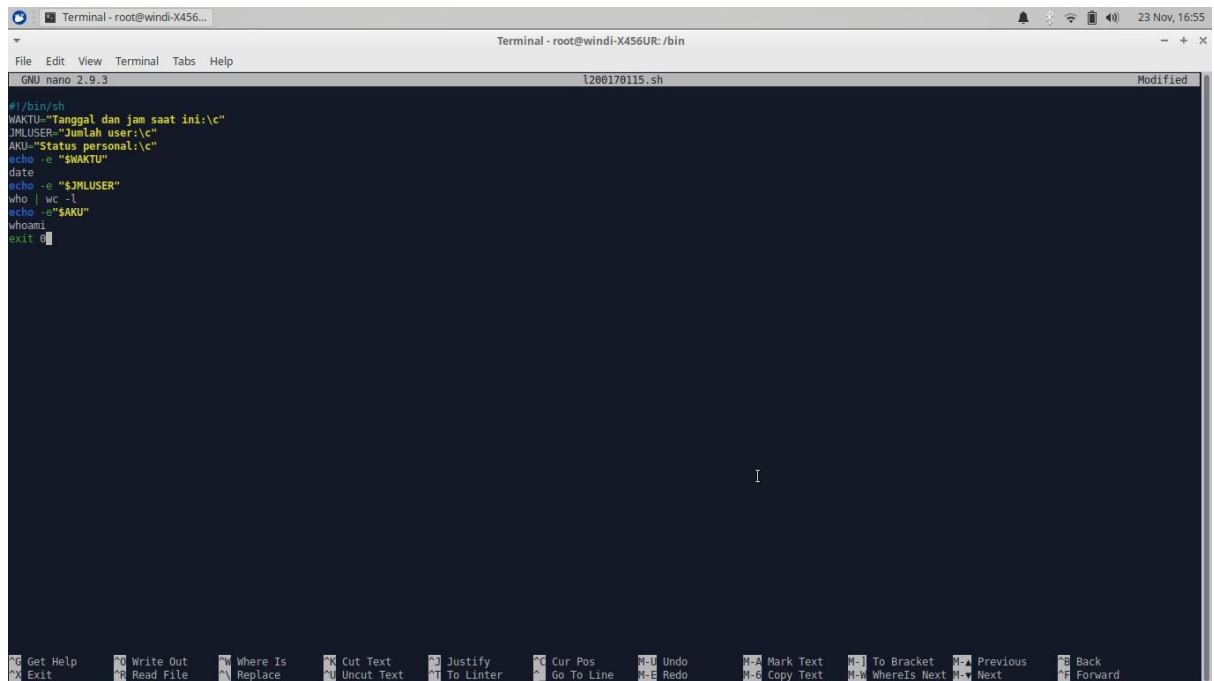
`AKU=""Status personal : \c"`

`echo -e"$WAKTU" date`

`echo -e"$JMLUSER" who | wc -l`

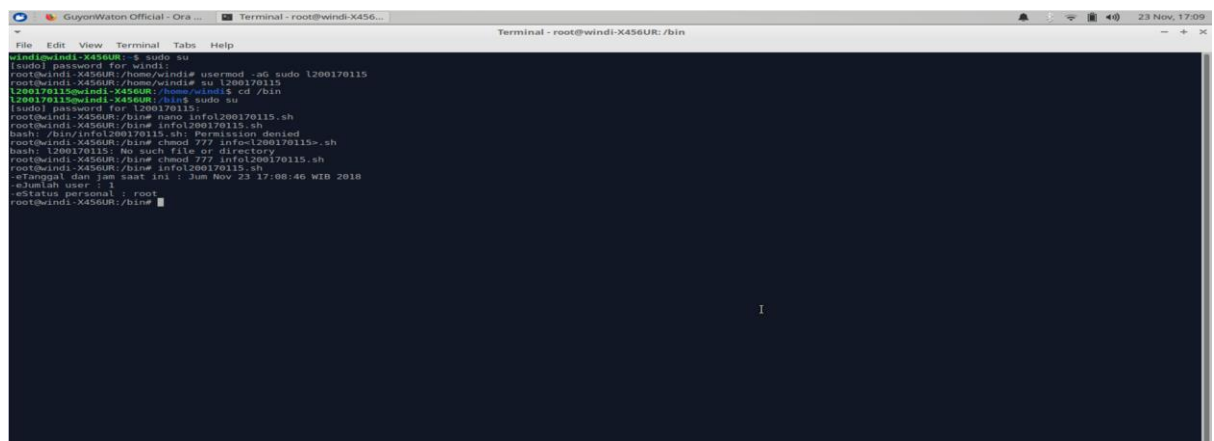
`echo -e"$AKU" Whoami`

`exit 0`



```
Terminal - root@windi-X456UR: /bin
GNU nano 2.9.3 l200170115.sh Modified
#!/bin/sh
MAKTU="Tanggal dan jam saat ini:\c"
JMLUSER="Jumlah user:\c"
AKU="Status personal:\c"
echo -e "$MAKTU"
date
echo -e "$JMLUSER"
who | wc -l
echo -e "$AKU"
whoami
exit 0
```

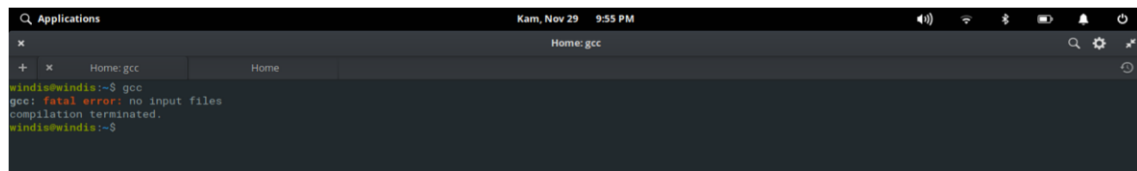
8. Lalu simpan dengan cara ctrl +x
9. Ketik perintah “infol200170115.sh” untuk memanggil file



```
Terminal - root@windi-X456UR: /bin
root@windi-X456UR:~# sudo su
[sudo] password for windi:
root@windi-X456UR:/home/windi# usermod -s /bin/bash l200170115
root@windi-X456UR:/home/windi# su l200170115
l200170115@windi-X456UR:~# cd /bin
l200170115@windi-X456UR:/bin# sudo su
[sudo] password for l200170115:
root@windi-X456UR:/bin# nano infol200170115.sh
root@windi-X456UR:/bin# infol200170115.sh
bash: /bin/infol200170115.sh: Permission denied
root@windi-X456UR:/bin# chmod 777 infol200170115.sh
root@windi-X456UR:/bin# ./infol200170115.sh
-Tanggal dan jam saat ini : Jum Nov 23 17:08:46 WID 2018
-Jumlah user : 1
-Status personal : root
root@windi-X456UR:/bin#
```

## MODUL 8

A. Ketik “gcc” pada terminal linux

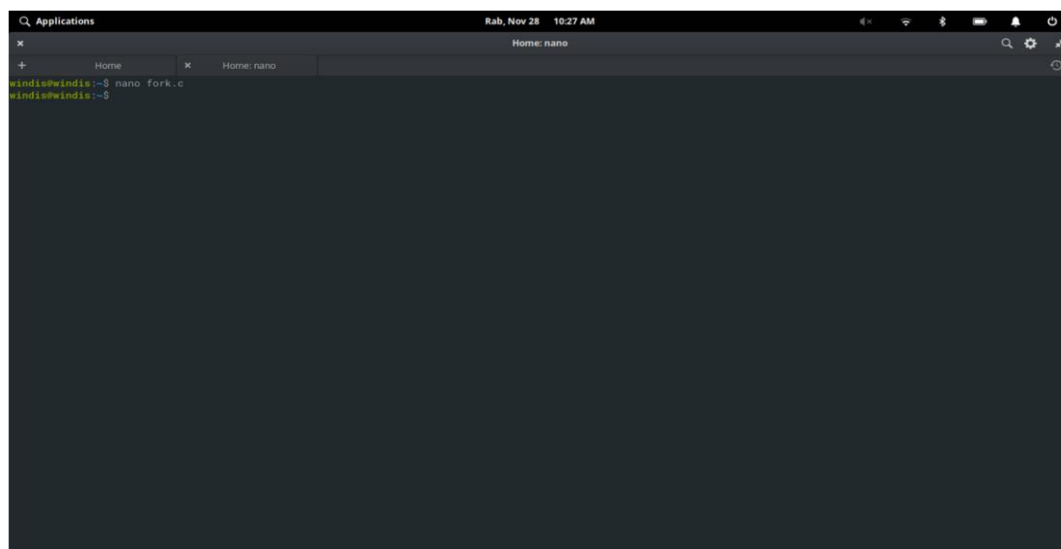


A screenshot of a Linux terminal window. The window title is "Applications" and the date/time is "Kam, Nov 29 9:55 PM". The terminal shows the user "windis@windis" at the prompt. The command "gcc" has been entered, and the output is "gcc: fatal error: no input files" and "compilation terminated.".

```
windis@windis:~$ gcc
gcc: fatal error: no input files
compilation terminated.
windis@windis:~$
```

B. Fork.c

1. Ketik perintah “nano fork.c” untuk membuat file bernama fork

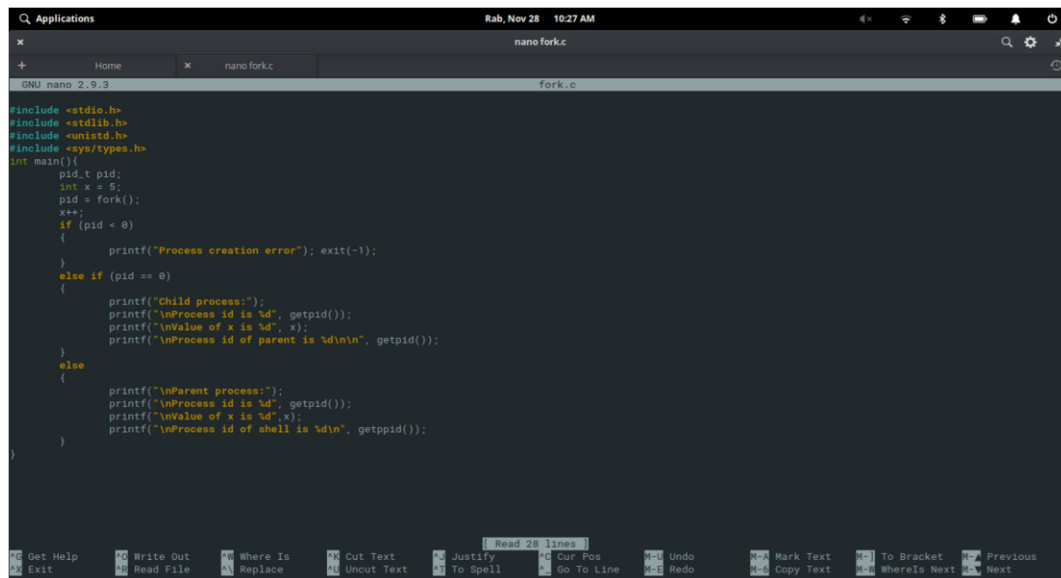


A screenshot of a Linux terminal window. The window title is "Applications" and the date/time is "Rab, Nov 28 10:27 AM". The terminal shows the user "windis@windis" at the prompt. The command "nano fork.c" has been entered, and the output is "nano: fork.c" and "nano: fork.c".

```
windis@windis:~$ nano fork.c
nano: fork.c
nano: fork.c
windis@windis:~$
```

2. Lalu ketik perintah yang terdapat pada modul

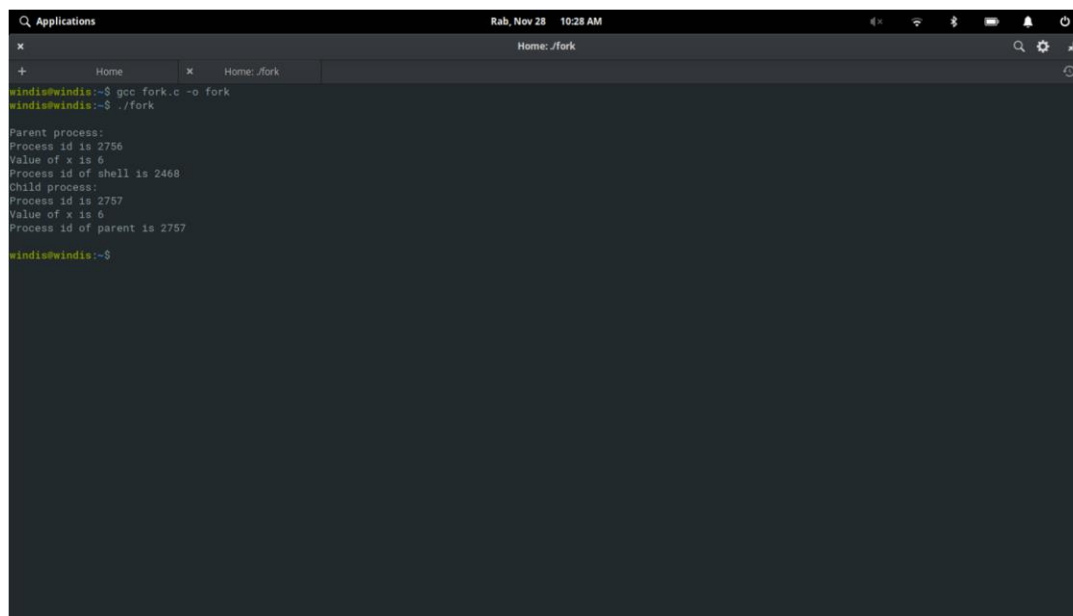
3. Tekan ctrl+x untuk menyimpan file, lalu ketik “Y”, lalu enter



```
#include <stdio.h>
#include <stdlib.h>
#include <unistd.h>
#include <sys/types.h>

int main()
{
    pid_t pid;
    int x = 5;
    pid = fork();
    x++;
    if (pid < 0)
    {
        printf("Process creation error"); exit(-1);
    }
    else if (pid == 0)
    {
        printf("Child process:");
        printf("\nProcess id is %d", getpid());
        printf("\nValue of x is %d", x);
        printf("\nProcess id of parent is %d\n", getpid());
    }
    else
    {
        printf("\nParent process:");
        printf("\nProcess id is %d", getpid());
        printf("\nValue of x is %d", x);
        printf("\nProcess id of shell is %d\n", getpid());
    }
}
```

4. Ketik “gcc fork.c -o fork” untuk mengecek apakah codingan sudah benar atau belum.
5. Ketik “./fork” untuk menampilkan outputnya



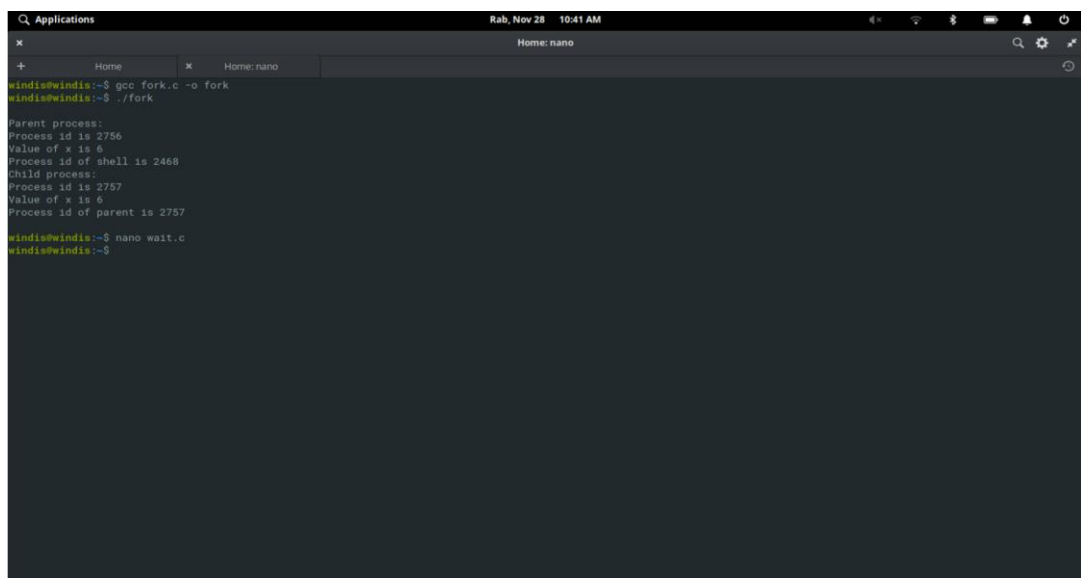
```
windis@windis:~$ gcc fork.c -o fork
windis@windis:~$ ./fork

Parent process:
Process id is 2756
Value of x is 6
Process id of shell is 2468
Child process:
Process id is 2757
Value of x is 6
Process id of parent is 2757

windis@windis:~$
```

C. wait.c

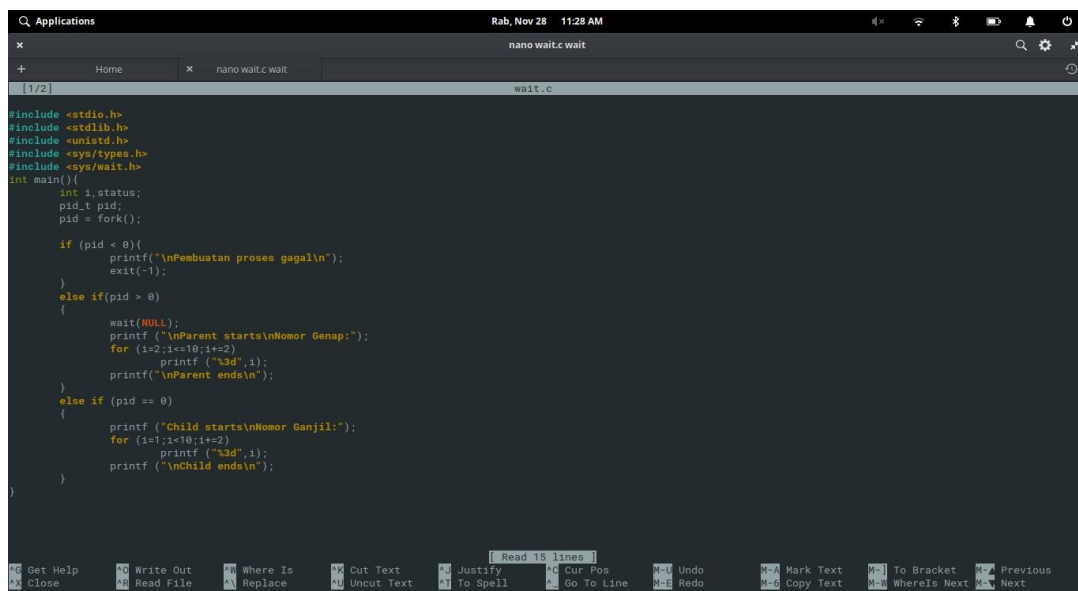
12. Ketik perintah “nano wait.c” untuk membuat file bernama wait



```
windis@windis:~$ gcc fork.c -o fork
windis@windis:~$ ./fork
Parent process:
Process id is 2756
Value of x is 6
Process id of shell is 2468
Child process:
Process id is 2757
Value of x is 6
Process id of parent is 2757
windis@windis:~$ nano wait.c
windis@windis:~$
```

13. Lalu ketik perintah yang terdapat pada modul

14. Tekan ctrl+x untuk menyimpan file, lalu ketik “Y”, lalu enter



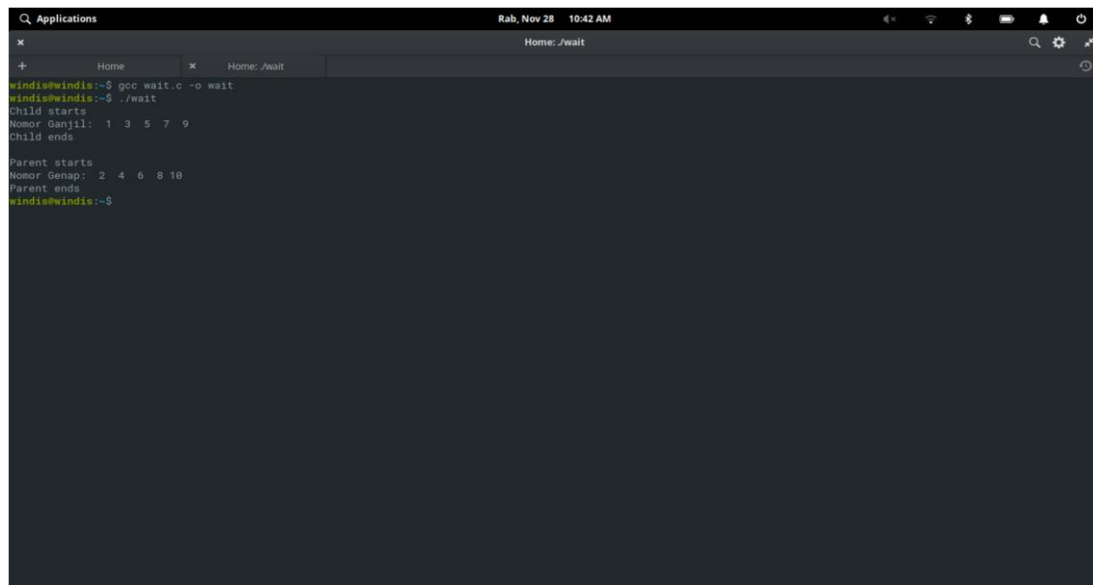
```
#include <stdio.h>
#include <stdlib.h>
#include <unistd.h>
#include <sys/types.h>
#include <sys/wait.h>

int main(){
    int i,status;
    pid_t pid;
    pid = fork();

    if (pid < 0){
        printf("\nPembuatan proses gagal\n");
        exit(-1);
    }
    else if(pid > 0)
    {
        wait(NULL);
        printf ("\nParent starts\nNomor Genap:");
        for (i=2;i<=10;i+=2)
            printf ("%2d",i);
        printf("\nParent ends\n");
    }
    else if (pid == 0)
    {
        printf ("Child starts\nNomor Ganjil:");
        for (i=1;i<=10;i+=2)
            printf ("%2d",i);
        printf ("\nChild ends\n");
    }
}
```

15. Ketik “gcc wait.c -o wait” untuk mengecek apakah codingan sudah benar atau belum.

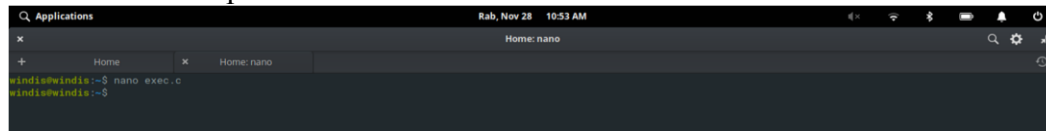
16. Ketik “./wait” untuk menampilkan outputnya



```
Applications
Rab, Nov 28 10:42 AM
Home: ./wait
windiswindis:~$ gcc wait.c -o wait
windiswindis:~$ ./wait
Child starts
Nomor Ganjil: 1 3 5 7 9
Child ends
Parent starts
Nomor Genap: 2 4 6 8 10
Parent ends
windiswindis:~$
```

#### D. exec.c

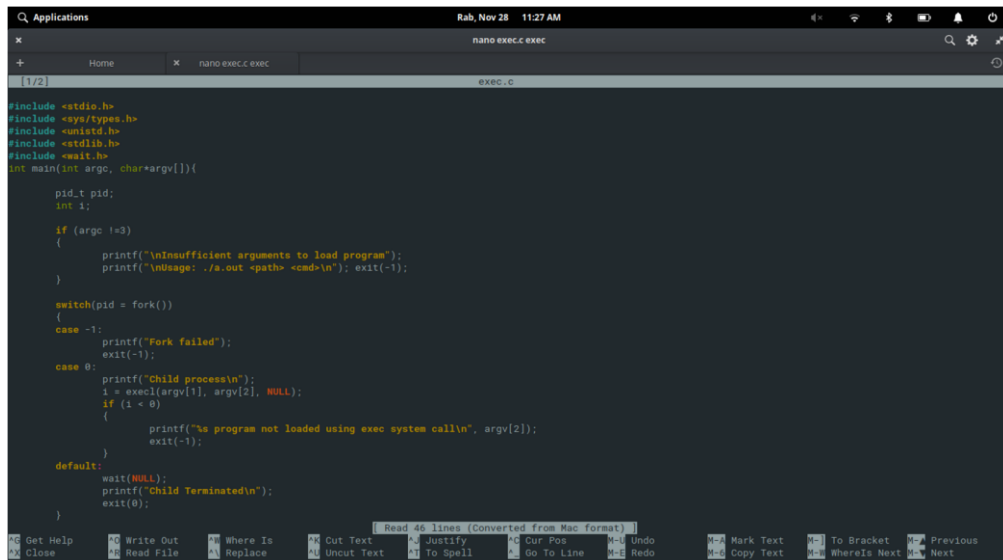
8. Ketik perintah “nano exec.c” untuk membuat file bernama exec



```
Applications
Rab, Nov 28 10:53 AM
Home: nano
windiswindis:~$ nano exec.c
windiswindis:~$
```

9. Lalu ketik perintah yang terdapat pada modul

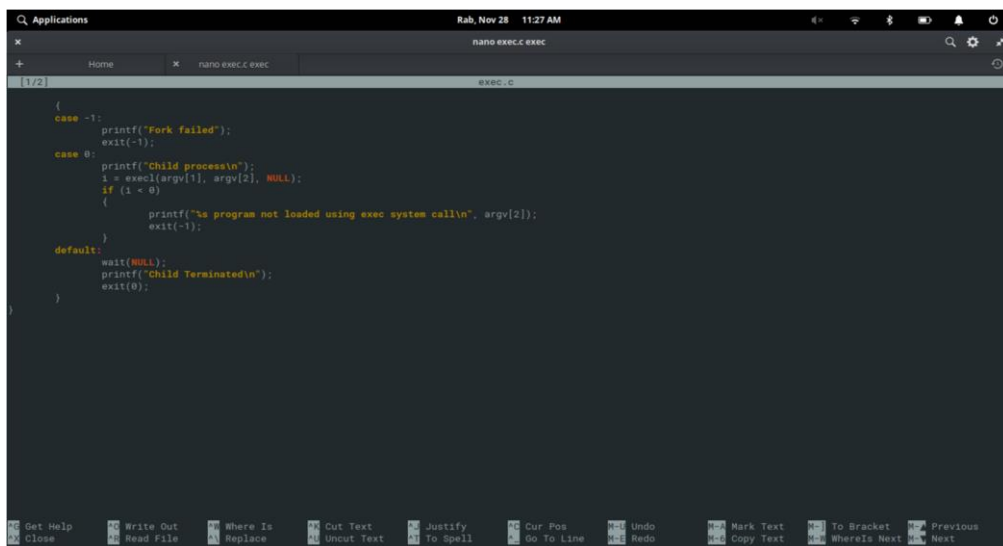
10. Tekan ctrl+x untuk menyimpan file, lalu ketik “Y”, lalu enter



```
#include <stdio.h>
#include <sys/types.h>
#include <unistd.h>
#include <stdlib.h>
#include <wait.h>

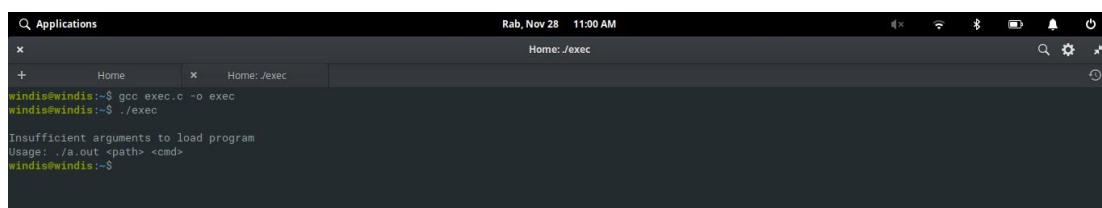
int main(int argc, char*argv[]){
    pid_t pid;
    int i;
    if (argc !=3)
    {
        printf("\nInsufficient arguments to load program");
        printf("\nUsage: ./a.out <path> <cmd>\n"); exit(-1);
    }

    switch(pid = fork())
    {
        case -1:
            printf("Fork failed");
            exit(-1);
        case 0:
            printf("Child process\n");
            i = execl(argv[1], argv[2], NULL);
            if (i < 0)
            {
                printf("%s program not loaded using exec system call\n", argv[2]);
                exit(-1);
            }
        default:
            wait(NULL);
            printf("Child Terminated\n");
            exit(0);
    }
}
```



```
{
    case -1:
        printf("Fork failed");
        exit(-1);
    case 0:
        printf("Child process\n");
        i = execl(argv[1], argv[2], NULL);
        if (i < 0)
        {
            printf("%s program not loaded using exec system call\n", argv[2]);
            exit(-1);
        }
    default:
        wait(NULL);
        printf("Child Terminated\n");
        exit(0);
}
```

10. Ketik “gcc exec.c -o exec” untuk mengecek apakah codingan sudah benar atau belum.
11. Ketik “./exec” untuk menampilkan outputnya



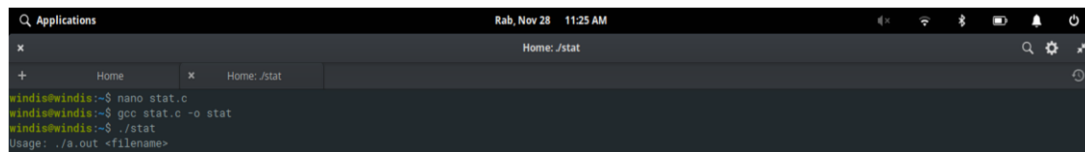
```
windis@windis:~$ gcc exec.c -o exec
windis@windis:~$ ./exec

Insufficient arguments to load program
Usage: ./a.out <path> <cmd>
windis@windis:~$
```

## E. Stat.c

1. . Ketik perintah “nano stat.c” untuk membuat file bernama stat

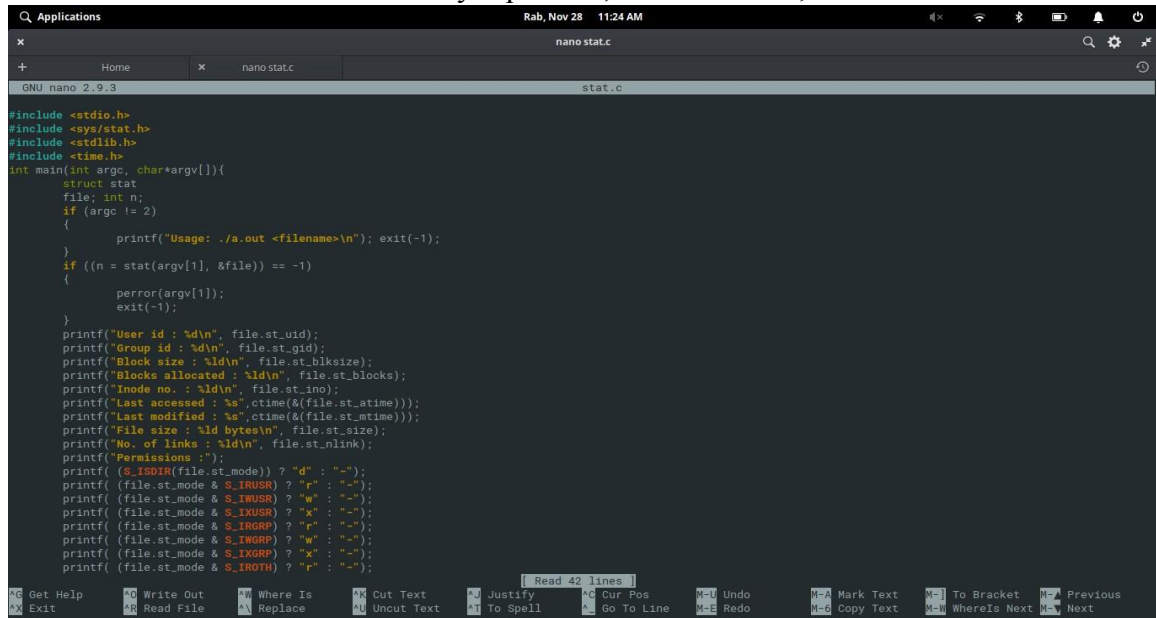




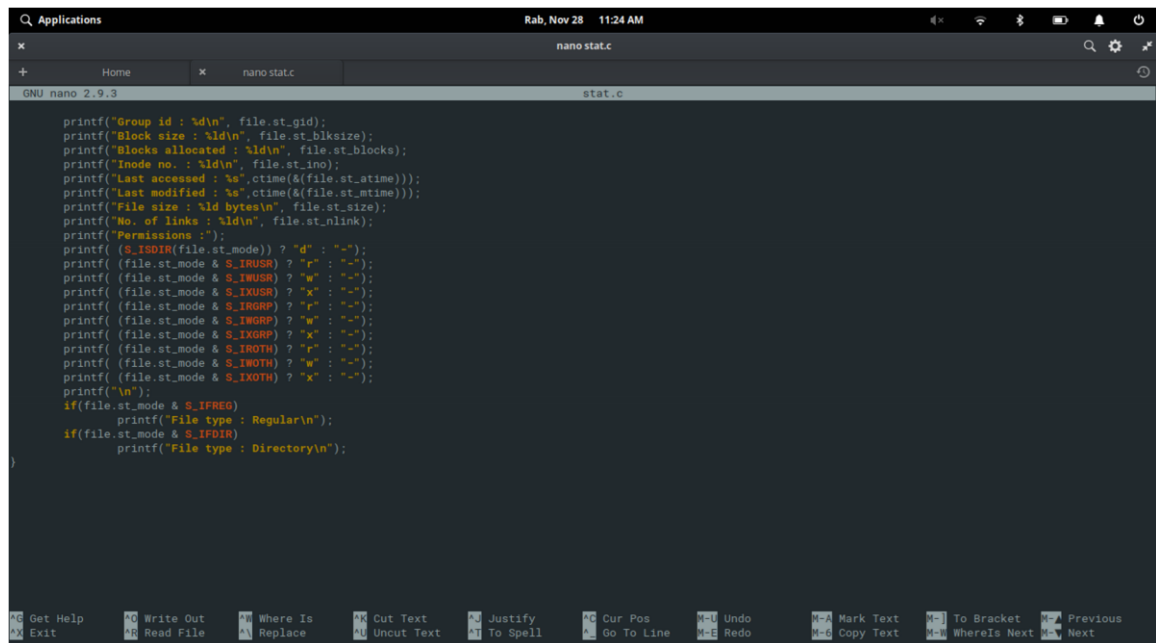
```
Applications Rab, Nov 28 11:25 AM
Home: ./stat
windis@windis:~$ nano stat.c
windis@windis:~$ gcc stat.c -o stat
windis@windis:~$ ./stat
Usage: ./a.out <filename>
```

2. Lalu ketik perintah yang terdapat pada modul

3. Tekan ctrl+x untuk menyimpan file, lalu ketik “Y”, lalu enter

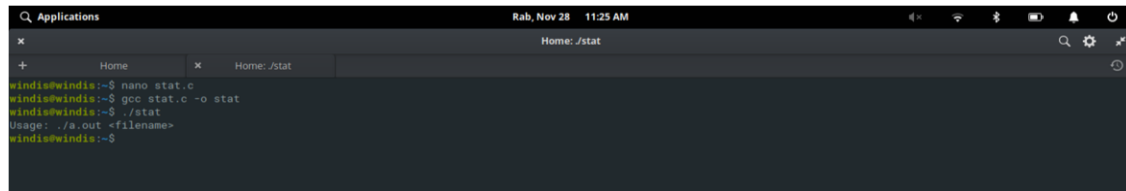


```
Applications Rab, Nov 28 11:24 AM
nano stat.c
GNU nano 2.9.3 stat.c
#include <stdio.h>
#include <sys/stat.h>
#include <stdlib.h>
#include <time.h>
int main(int argc, char*argv[]){
    struct stat
    file; int n;
    if (argc != 2)
    {
        printf("Usage: ./a.out <filename>\n"); exit(-1);
    }
    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 : %ld\n", file.st_blksize);
    printf("Blocks allocated : %ld\n", file.st_blocks);
    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");
}
```



```
Applications Rab, Nov 28 11:24 AM
nano stat.c
GNU nano 2.9.3 stat.c
printf("Group id : %d\n", file.st_gid);
printf("Block size : %ld\n", file.st_blksize);
printf("Blocks allocated : %ld\n", file.st_blocks);
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");
}
```

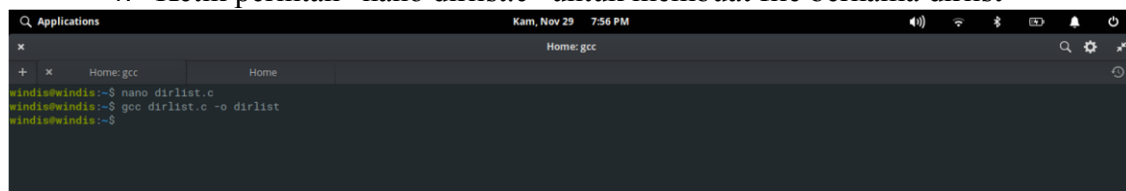
4. Ketik “gcc stat.c -o stat” untuk mengecek apakah codingan sudah benar atau belum.
5. Ketik “./stat” untuk menampilkan outputnya



```
Applications
Rab, Nov 28 11:25 AM
Home: ./stat
windis@windis:~$ nano stat.c
windis@windis:~$ gcc stat.c -o stat
windis@windis:~$ ./stat
Usage: ./a.out <filename>
windis@windis:~$
```

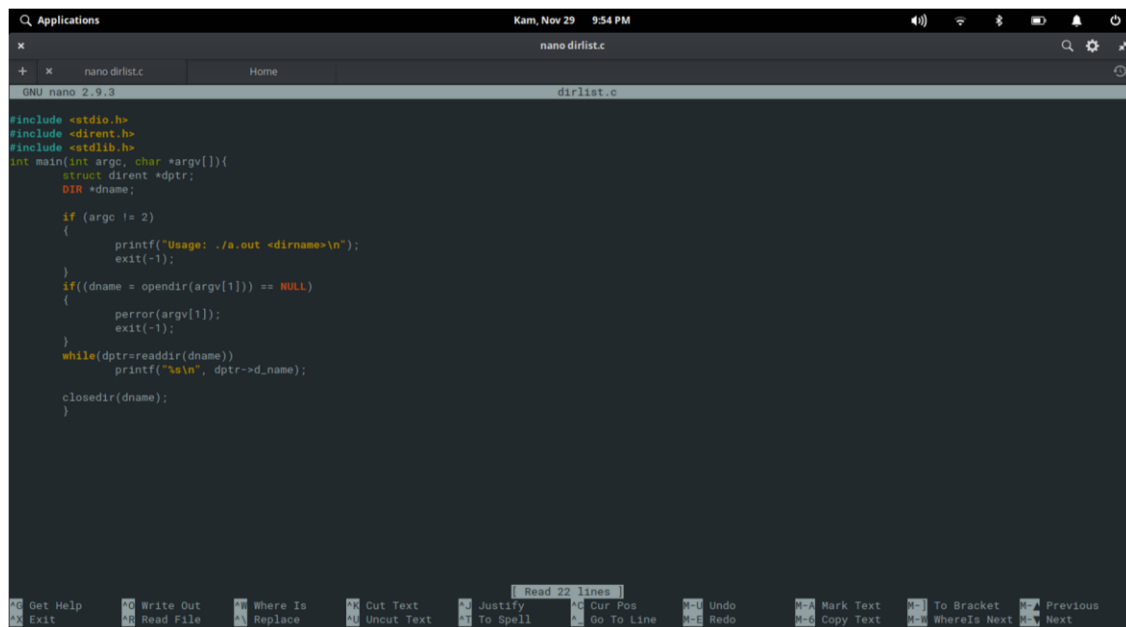
## F. Dirlist.c

1. Ketik perintah “nano dirlist.c” untuk membuat file bernama dirlist



```
Applications
Kam, Nov 29 7:56 PM
Home: gcc
windis@windis:~$ nano dirlist.c
windis@windis:~$ gcc dirlist.c -o dirlist
windis@windis:~$
```

2. Lalu ketik perintah yang terdapat pada modul
3. Tekan ctrl+x untuk menyimpan file, lalu ketik “Y”, lalu enter



```
Applications
Kam, Nov 29 9:54 PM
nano dirlist.c
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);

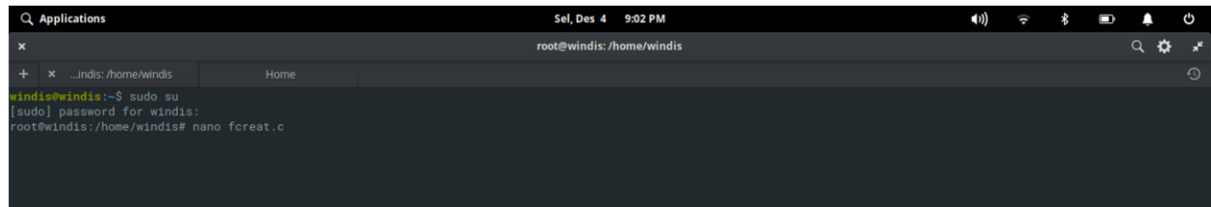
    closedir(dname);
}
```

4. Ketik “gcc dirlist.c -o dirlist” untuk mengecek apakah codingan sudah benar atau belum.
5. Ketik “./dirlist” untuk menampilkan outputnya

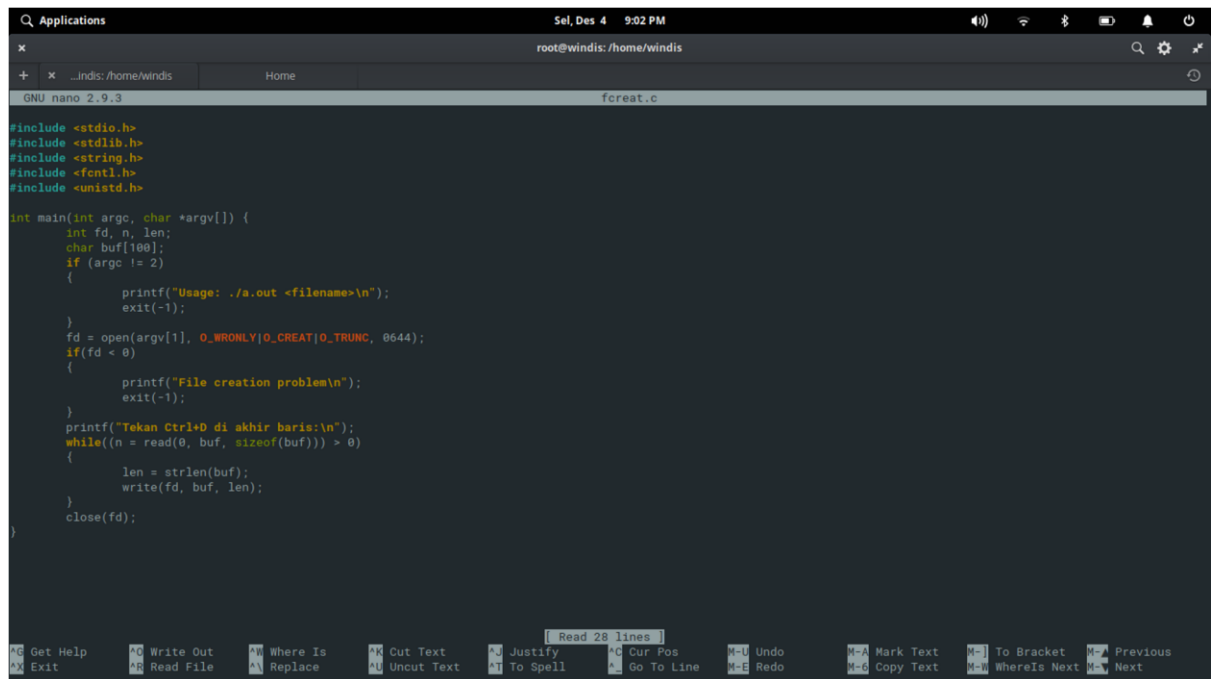
```
Applications
Kam, Nov 29 7:57 PM
x
+ x Home: ./dirlist Home
windis@windis:~$ nano dirlist.c
windis@windis:~$ gcc dirlist.c -o dirlist
windis@windis:~$ ./dirlist
Usage: ./a.out <dirname>
windis@windis:~$
```

## MODUL 9

### 1. Membuat sebuah file dan menuliskannya. Fcreat.c



```
Applications
Sel, Des 4 9:02 PM
root@windis: /home/windis
windis@windis:~$ sudo su
[sudo] password for windis:
root@windis: /home/windis# nano fcreat.c
```



```
GNU nano 2.9.3 fcreat.c
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
#include <fcntl.h>
#include <unistd.h>

int main(int argc, char *argv[]) {
    int fd, n, len;
    char buf[100];
    if (argc != 2)
    {
        printf("Usage: ./a.out <filename>\n");
        exit(-1);
    }
    fd = open(argv[1], O_WRONLY|O_CREAT|O_TRUNC, 0644);
    if (fd < 0)
    {
        printf("File creation problem\n");
        exit(-1);
    }
    printf("Tekan Ctrl+D di akhir baris:\n");
    while((n = read(0, buf, sizeof(buf))) > 0)
    {
        len = strlen(buf);
        write(fd, buf, len);
    }
    close(fd);
}
```

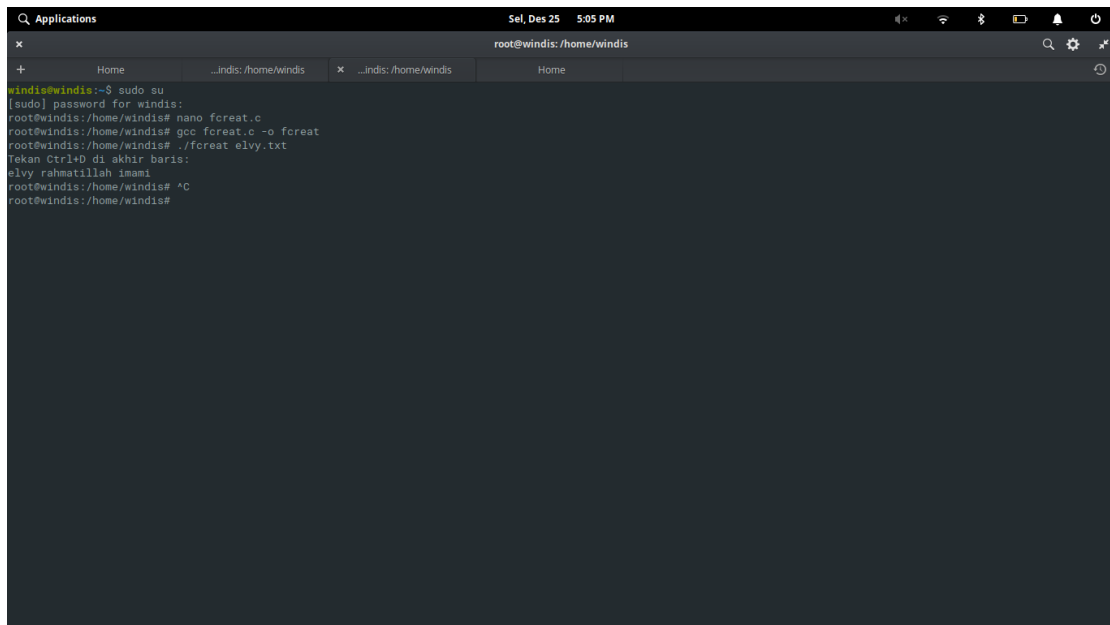
Lalu di save dgn ctrl+x , Y dan enter

Cek dengan ketik gcc fcreat.c -o fcreat



```
Applications
Sel, Des 4 9:03 PM
root@windis: /home/windis
windis@windis:~$ sudo su
[sudo] password for windis:
root@windis: /home/windis# nano fcreat.c
root@windis: /home/windis# gcc fcreat.c -o fcreat
```

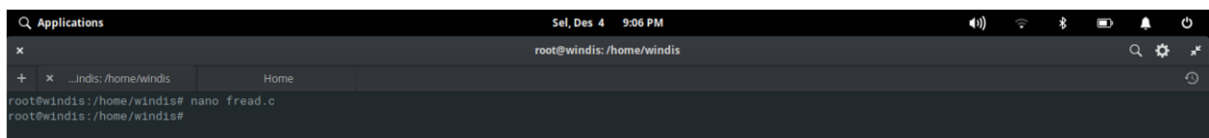
Lalu ketik ./fcreat elvy.txt untuk memanggil nama file. Kemudian ketikkan text yang akan disimpan dalam file , tekan ctrl+D dan tekan ctrl+C jika sudah selesai.



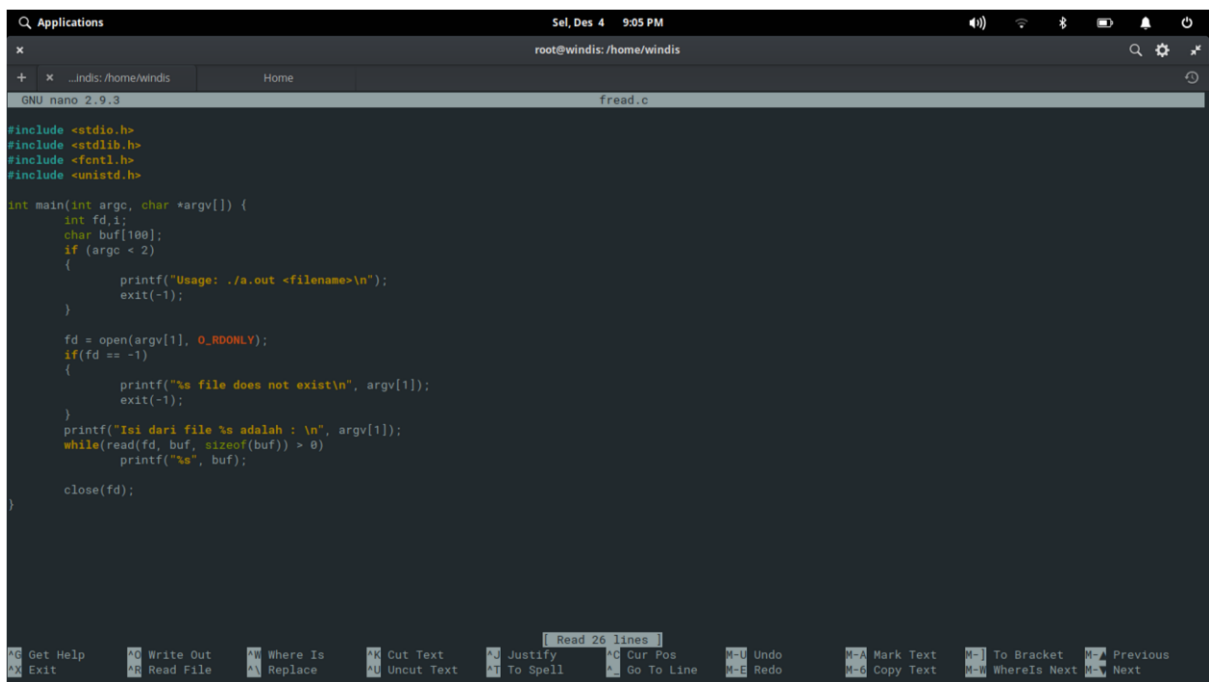
```
root@windis:/home/windis# sudo su
[sudo] password for windis:
root@windis:/home/windis# nano fcreat.c
root@windis:/home/windis# gcc fcreat.c -o fcreat
root@windis:/home/windis# ./fcreat elvy.txt
Tekan Ctrl+D di akhir baris:
elvy rahmatillah imami
root@windis:/home/windis# ^C
root@windis:/home/windis#
```

2. Membaca sebuah file dan menampilkan isinya di layar.

Ketik nano fread.c



```
root@windis:/home/windis# nano fread.c
root@windis:/home/windis#
```



```
GNU nano 2.9.3 fread.c

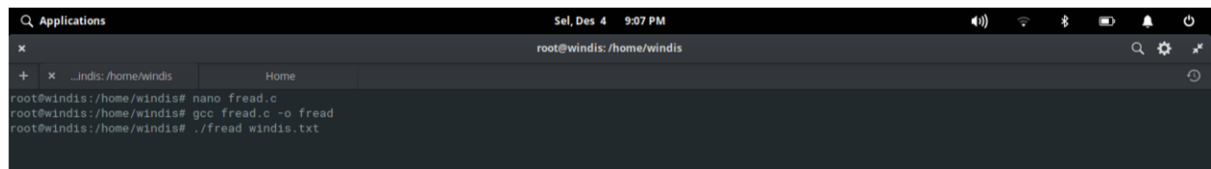
#include <stdio.h>
#include <stdlib.h>
#include <fcntl.h>
#include <unistd.h>

int main(int argc, char *argv[]) {
    int fd, i;
    char buf[100];
    if (argc < 2)
    {
        printf("Usage: ./a.out <filename>\n");
        exit(-1);
    }
    fd = open(argv[1], O_RDONLY);
    if (fd == -1)
    {
        printf("%s file does not exist\n", argv[1]);
        exit(-1);
    }
    printf("Isi dari file %s adalah : \n", argv[1]);
    while (read(fd, buf, sizeof(buf)) > 0)
        printf("%s", buf);

    close(fd);
}

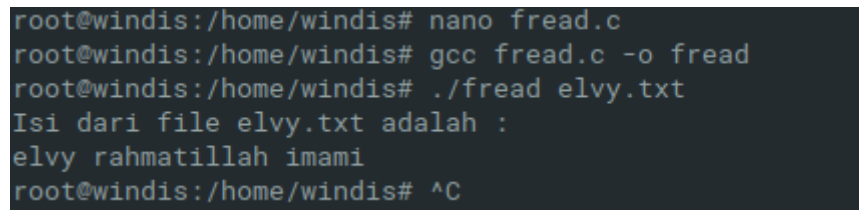
[ Read 26 lines ]
Get Help  Write Out  Where Is  Cut Text  Justify  Cur Pos  Undo  Mark Text  To Bracket  Previous
Exit      Read File  Replace  Uncut Text  To Spell  Go To Line  Redo  Copy Text  WhereIs Next  Next
```

Lalu di save dgn ctrl+x , Y dan enter. Cek dengan gcc fread.c -o fread kemudian ketik ./fread elvy.txt untuk menampilkan file tersebut



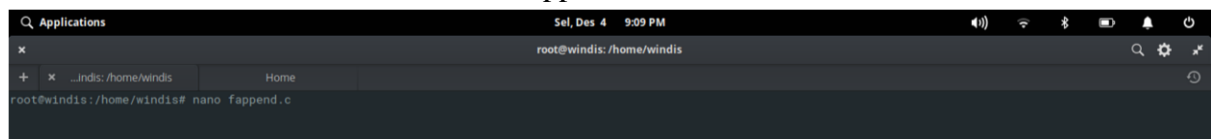
```
root@windis:/home/windis# nano fread.c
root@windis:/home/windis# gcc fread.c -o fread
root@windis:/home/windis# ./fread windis.txt
```

Hasilnya

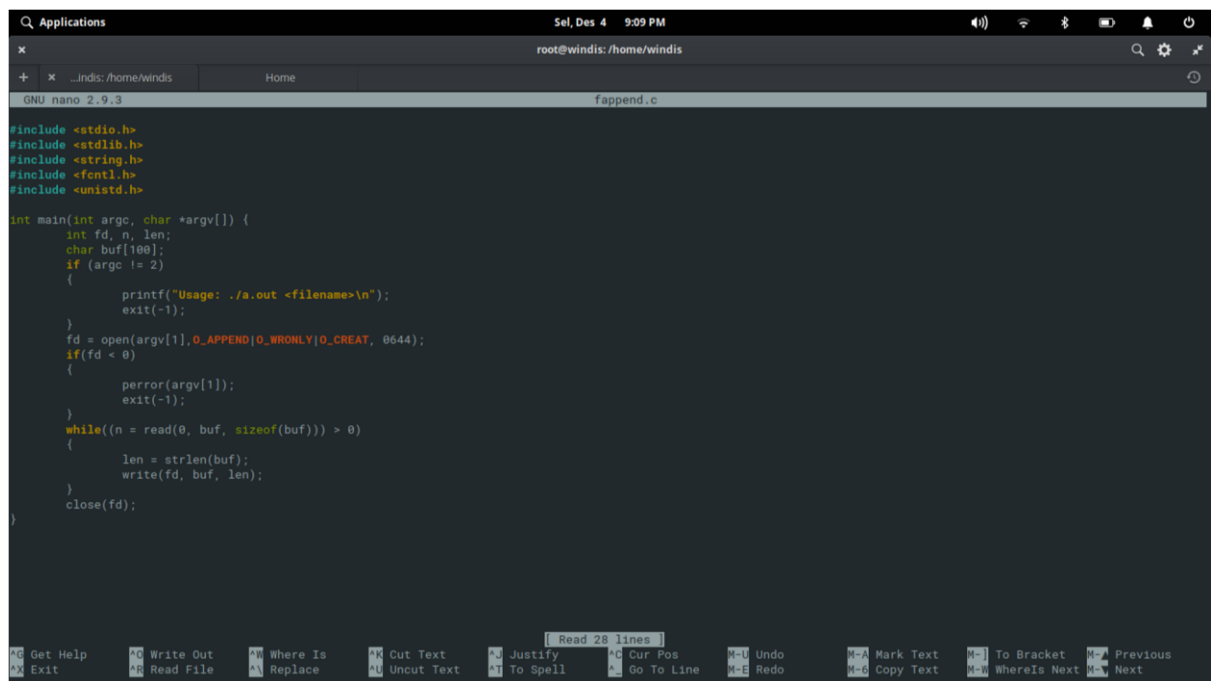


```
root@windis:/home/windis# nano fread.c
root@windis:/home/windis# gcc fread.c -o fread
root@windis:/home/windis# ./fread elvy.txt
Isi dari file elvy.txt adalah :
elvy rahmatillah imami
root@windis:/home/windis# ^C
```

### 3. Menambah isi file Ketik nano fappend.c



```
root@windis:/home/windis# nano fappend.c
```

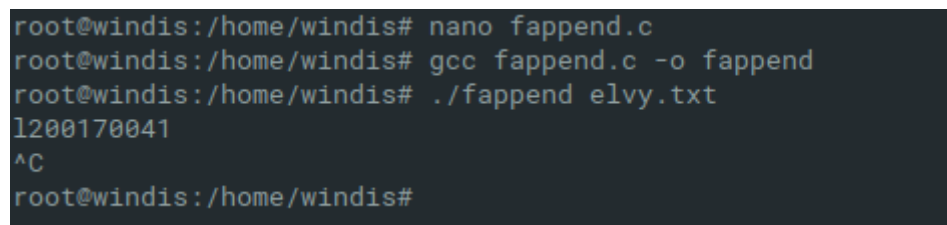


```
GNU nano 2.9.3 fappend.c

#include <stdio.h>
#include <stdlib.h>
#include <string.h>
#include <fcntl.h>
#include <unistd.h>

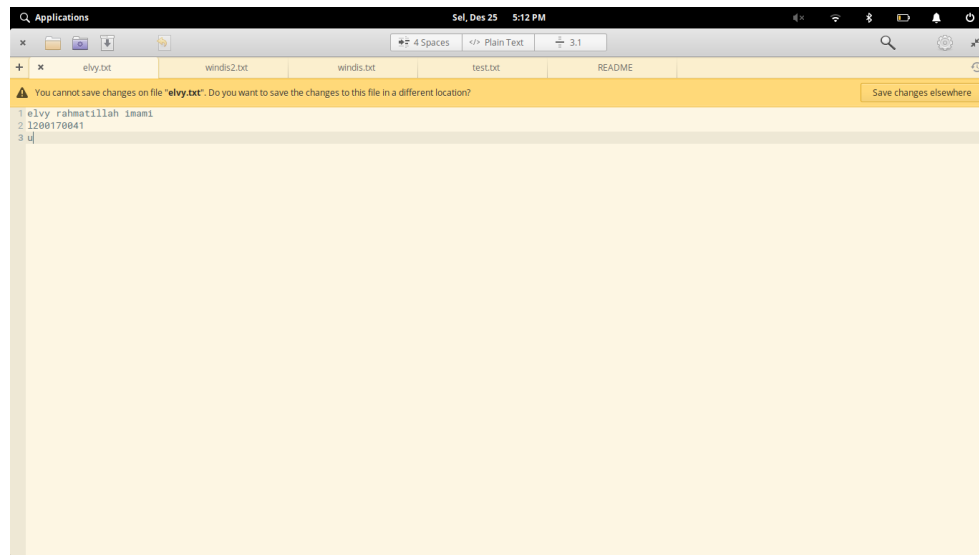
int main(int argc, char *argv[]) {
    int fd, n, len;
    char buf[100];
    if (argc != 2)
    {
        printf("Usage: ./a.out <filename>\n");
        exit(-1);
    }
    fd = open(argv[1], O_APPEND|O_WRONLY|O_CREAT, 0644);
    if (fd < 0)
    {
        perror(argv[1]);
        exit(-1);
    }
    while ((n = read(0, buf, sizeof(buf))) > 0)
    {
        len = strlen(buf);
        write(fd, buf, len);
    }
    close(fd);
}
```

Lalu save dengan ctrl+x , Y dan enter. Cek dengan ketik gcc fappend.c -o fappend. Lihat filenya dengan ketik ./fappend elvy.txt. Setelah itu tambahkan teks terus ctrl+D , setelah selesai ketik ctrl+C.



```
root@windis:/home/windis# nano fappend.c
root@windis:/home/windis# gcc fappend.c -o fappend
root@windis:/home/windis# ./fappend elvy.txt
1200170041
^C
root@windis:/home/windis#
```

## Hasil di elvy.txt



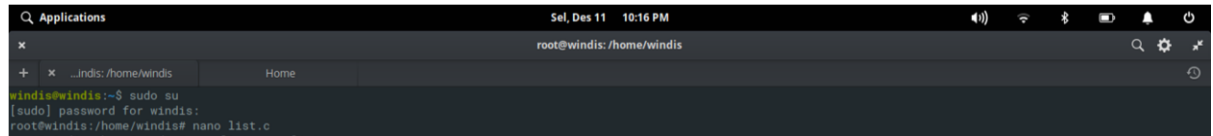
The screenshot shows a code editor window titled "Applications" with a status bar indicating "Sel, Des 25 5:12 PM". The editor has a tab bar with several files: "elvy.txt", "windis2.txt", "windis.txt", "test.txt", and "README". The "elvy.txt" tab is active, showing three lines of text: "1 elvy rahmatillah imam1", "2 1200170041", and "3 u". A yellow warning bar at the top of the editor area states: "You cannot save changes on file 'elvy.txt'. Do you want to save the changes to this file in a different location?" with a "Save changes elsewhere" button.

```
1 elvy rahmatillah imam1
2 1200170041
3 u
```

## MODUL 10

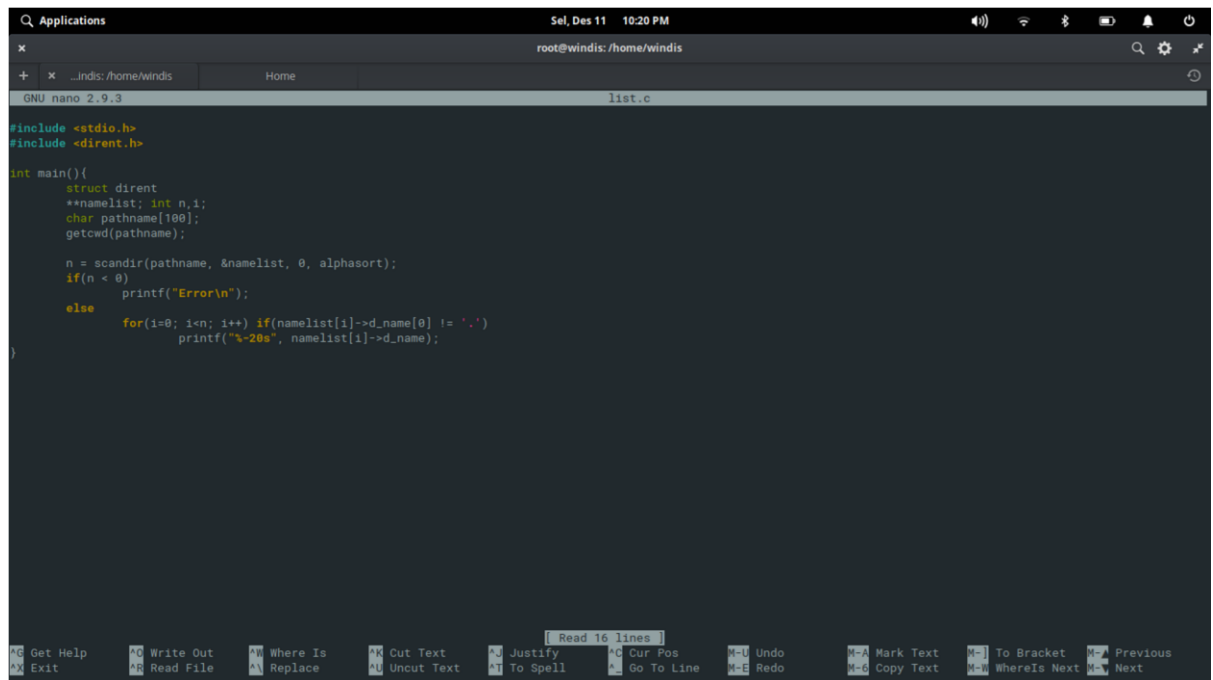
### A. Program untuk mensimulasikan perintah “IS”

#### 1. Ketik nano list.c



```
Applications Sel, Des 11 10:16 PM
root@windis: /home/windis
windis@windis:~$ sudo su
[sudo] password for windis:
root@windis: /home/windis# nano list.c
```

Kemudian ketikkan perintah seperti berikut ini,



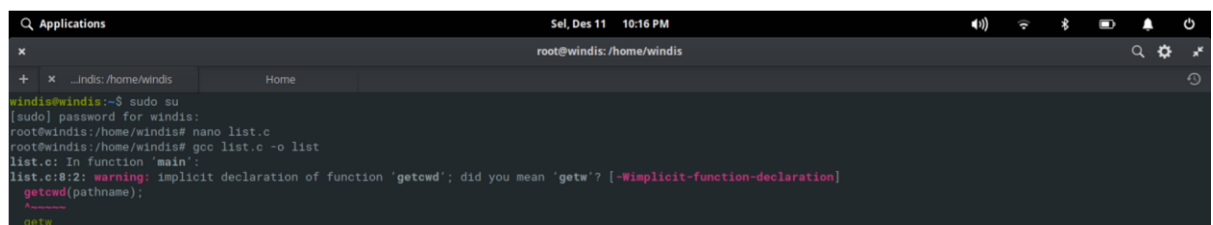
```
Applications Sel, Des 11 10:20 PM
root@windis: /home/windis
GNU nano 2.9.3 list.c
#include <stdio.h>
#include <dirent.h>

int main(){
    struct dirent
        **namelist; int n,i;
    char pathname[100];
    getcwd(pathname);

    n = scandir(pathname, &namelist, 0, alphasort);
    if(n < 0)
        printf("Error\n");
    else
        for(i=0; i<n; i++) if(namelist[i]->d_name[0] != '.')
            printf("%-20s", namelist[i]->d_name);
}
```

Setelah itu simpan dengan ketik CTRL+X , terus Y dan enter

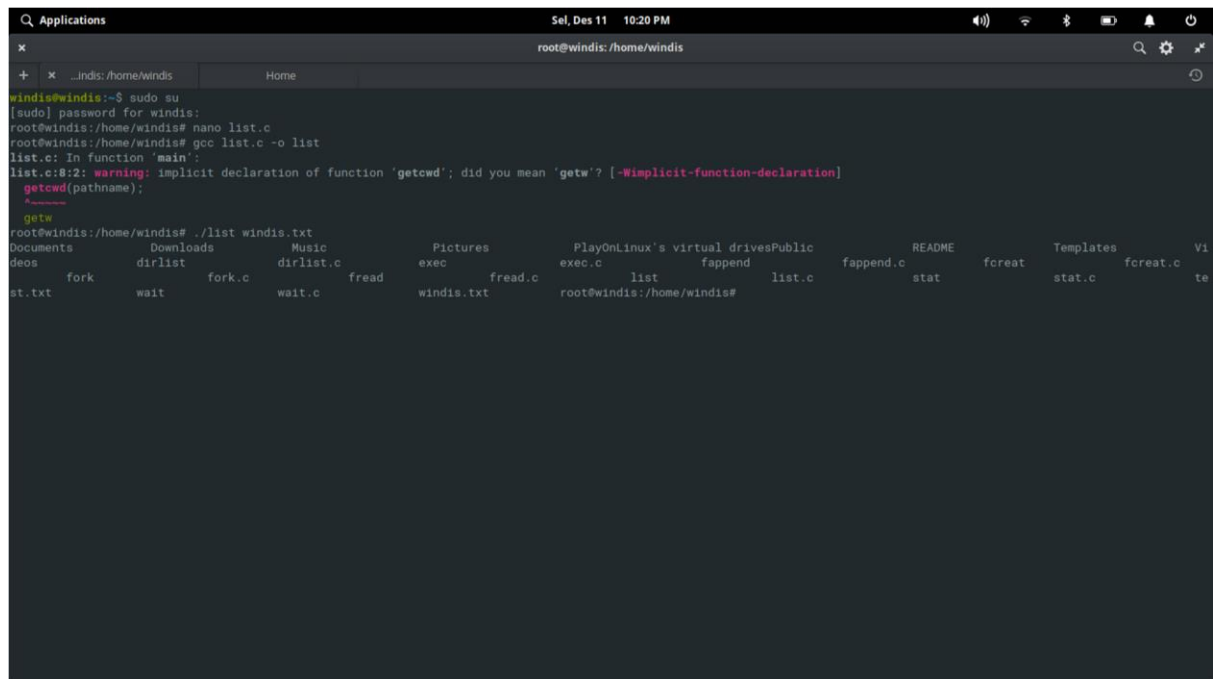
#### 2. Cek dengan ketik gcc list.c -o list



```
Applications Sel, Des 11 10:16 PM
root@windis: /home/windis
windis@windis:~$ sudo su
[sudo] password for windis:
root@windis: /home/windis# nano list.c
root@windis: /home/windis# gcc list.c -o list
list.c: In function 'main':
list.c:8:2: warning: implicit declaration of function 'getcwd'; did you mean 'getw'? [-Wimplicit-function-declaration]
    getcwd(pathname);
    ^~~~~~
    getw
```

#### 3. Liat hasilnya dengan ketik ./list windis.txt (filename)

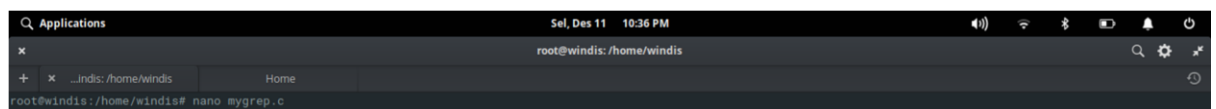




```
windis@windis:~$ sudo su
[sudo] password for windis:
root@windis:/home/windis# nano list.c
root@windis:/home/windis# gcc list.c -o list
list.c: In function 'main':
list.c:8:2: warning: implicit declaration of function 'getcwd'; did you mean 'getw'? [-Wimplicit-function-declaration]
  getcwd(pathname);
  ^~~~~~
  getw
root@windis:/home/windis# ./list windis.txt
Documents      Downloads      Music          Pictures       PlayOnLinux's virtual drivesPublic  README  Templates  Vi
deos           dirlist       dirlist.c     exec           exec.c         fappend    fappend.c  fcreat
st.txt         fork          fork.c        fread          fread.c        list       list.c      stat
wait          wait.c        windis.txt    root@windis:/home/windis#
```

## B. Program untuk mensimulasikan perintah “grep”

### 1. ketik nano mygrep.c



```
root@windis:/home/windis# nano mygrep.c
```

Kemudian ketikkan perintah di mygrep.c seperti dibawah ini

```
#include <stdio.h>
#include <string.h>
#include <stdlib.h>
int main(int argc, char *argv[]){
    FILE *fd;
    char str[100];
    char c;
    int i, flag, j, m, k;
    char temp[30];

    if (argc != 3)
    {
        printf("Usage: gcc mygrep.c -o mygrep\n");
        printf("Usage: ./mygrep <search_text> <filename>\n");
        exit(-1);
    }

    fd = fopen(argv[2], "r");
    if (fd == NULL)
    {
        printf("%s is not exist\n", argv[2]);
        exit(-1);
    }

    while (!feof(fd))
    {
        i = 0;
        while (1)
        {
            c = fgetc(fd);
            if (feof(fd))
            {
                str[i++] = '\0'; break;
            }
        }

        fd = fopen(argv[2], "r");
        if (fd == NULL)
        {
            printf("%s is not exist\n", argv[2]);
            exit(-1);
        }

        while (!feof(fd))
        {
            i = 0;
            while (1)
            {
                c = fgetc(fd);
                if (feof(fd))
                {
                    str[i++] = '\0'; break;
                }
                if (c == '\n')
                {
                    str[i++] = '\0'; break;
                }
                str[i++] = c;
            }

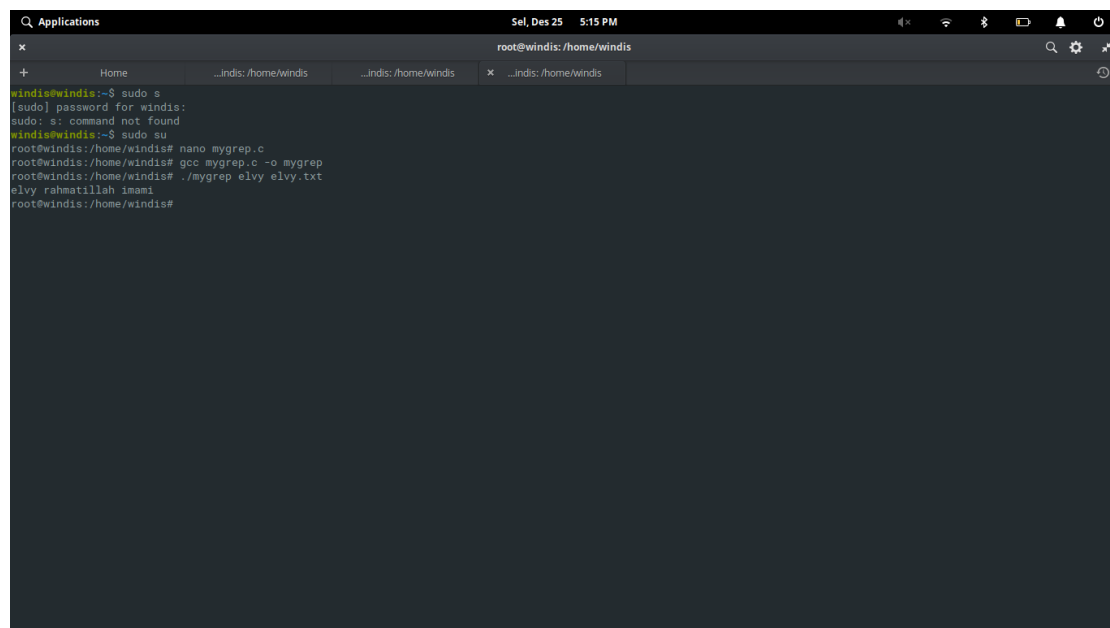
            if (strlen(str) >= strlen(argv[1]))
            for (k=0; k<strlen(str)-strlen(argv[1]); k++)
            {
                for (m=0; m<strlen(argv[1]); m++)
                    temp[m] = str[k+m];
                temp[m] = '\0';
                if (strcmp(temp, argv[1]) == 0)
                {
                    printf("%s\n", str);
                    break;
                }
            }
        }
    }
}
```

Setelah itu simpan dengan CTRL+X, terus Y enter

2. di cek dengan ketik gcc mygrep.c -o mygrep

```
root@windis:/home/windis# nano mygrep.c
root@windis:/home/windis# gcc mygrep.c -o mygrep
```

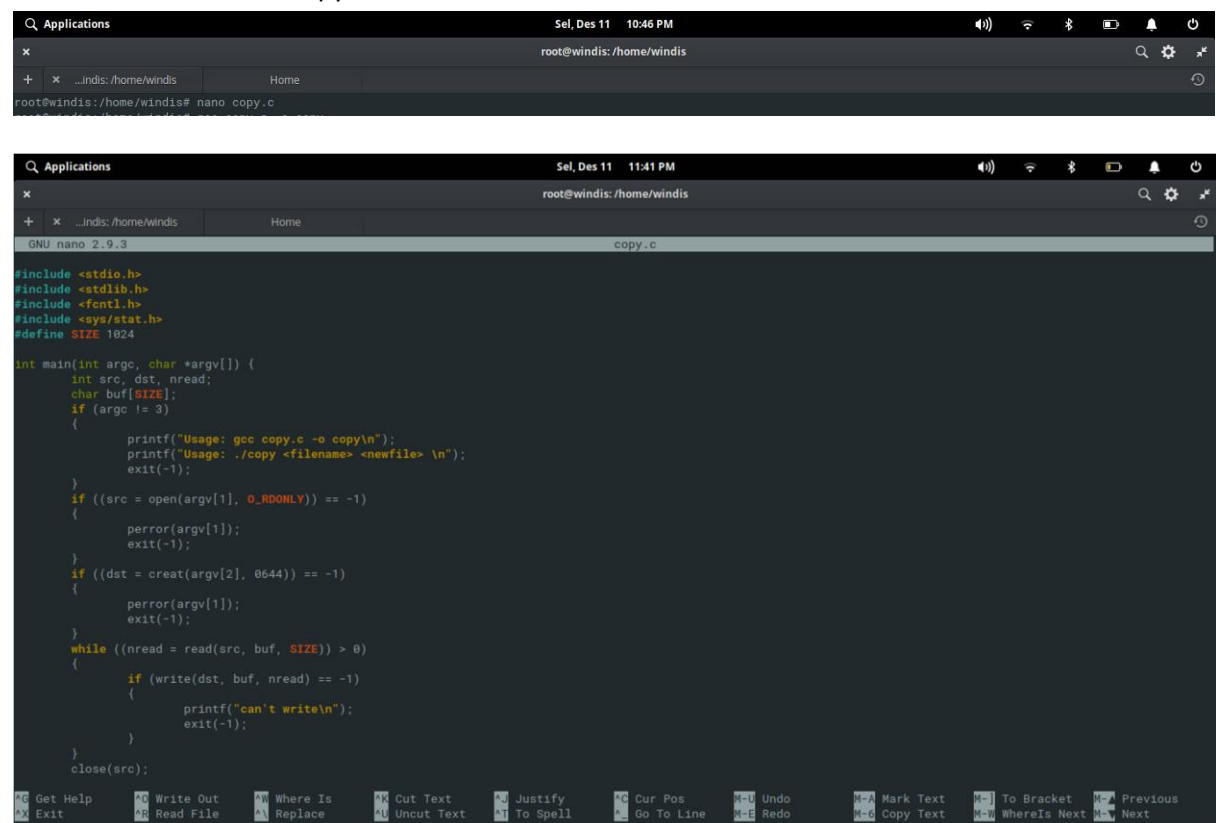
### 3 . lihat hasilnya dengan ketik ./mygrep elvy elvy.txt



```
root@windis: /home/windis
windis@windis:~$ sudo s
[sudo] password for windis:
sudo: s: command not found
windis@windis:~$ sudo su
root@windis: /home/windis# nano mygrep.c
root@windis: /home/windis# gcc mygrep.c -o mygrep
root@windis: /home/windis# ./mygrep elvy elvy.txt
elvy rahmatillah idmami
root@windis: /home/windis#
```

## C . program untuk mensimulasikan perintah “cp”

### 1. Ketik nano copy.c



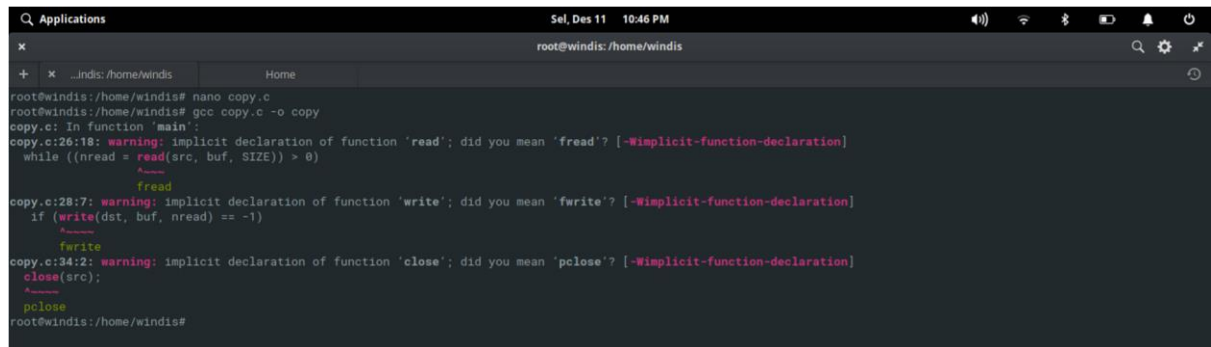
```
root@windis: /home/windis# nano copy.c

GNU nano 2.9.3 copy.c

#include <stdio.h>
#include <stdlib.h>
#include <fcntl.h>
#include <sys/stat.h>
#define SIZE 1024

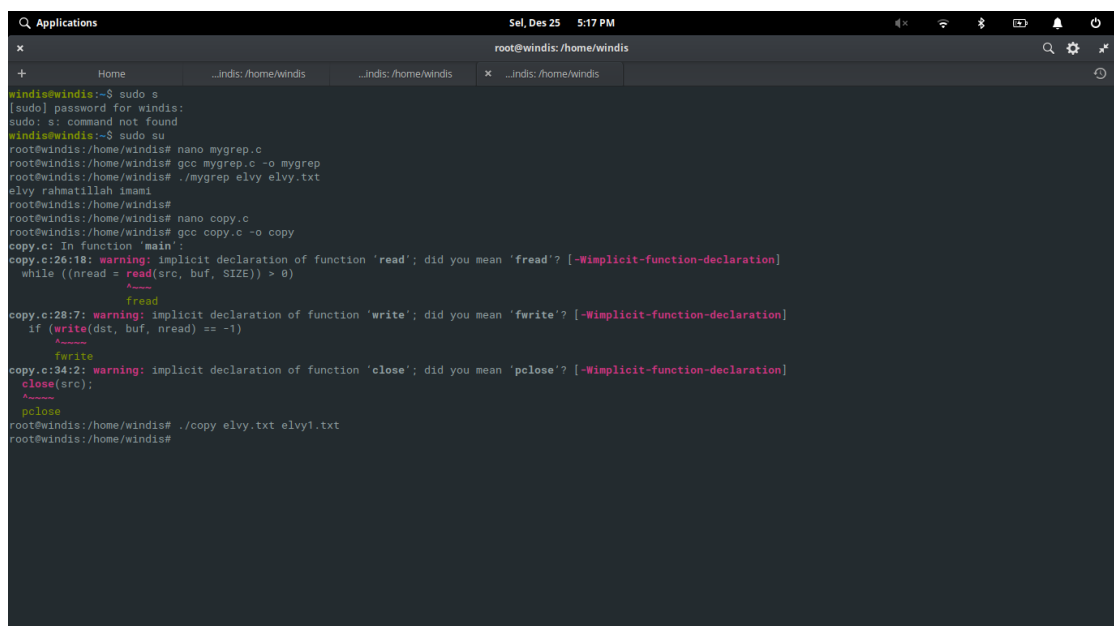
int main(int argc, char *argv[]) {
    int src, dst, nread;
    char buf[SIZE];
    if (argc != 3)
    {
        printf("Usage: gcc copy.c -o copy\n");
        printf("Usage: ./copy <filename> <newfile> \n");
        exit(-1);
    }
    if ((src = open(argv[1], O_RDONLY)) == -1)
    {
        perror(argv[1]);
        exit(-1);
    }
    if ((dst = creat(argv[2], 0644)) == -1)
    {
        perror(argv[1]);
        exit(-1);
    }
    while ((nread = read(src, buf, SIZE)) > 0)
    {
        if (write(dst, buf, nread) == -1)
        {
            printf("can't write\n");
            exit(-1);
        }
    }
    close(src);
}
```

2. Di cek dengan ketik gcc copy.c -o copy



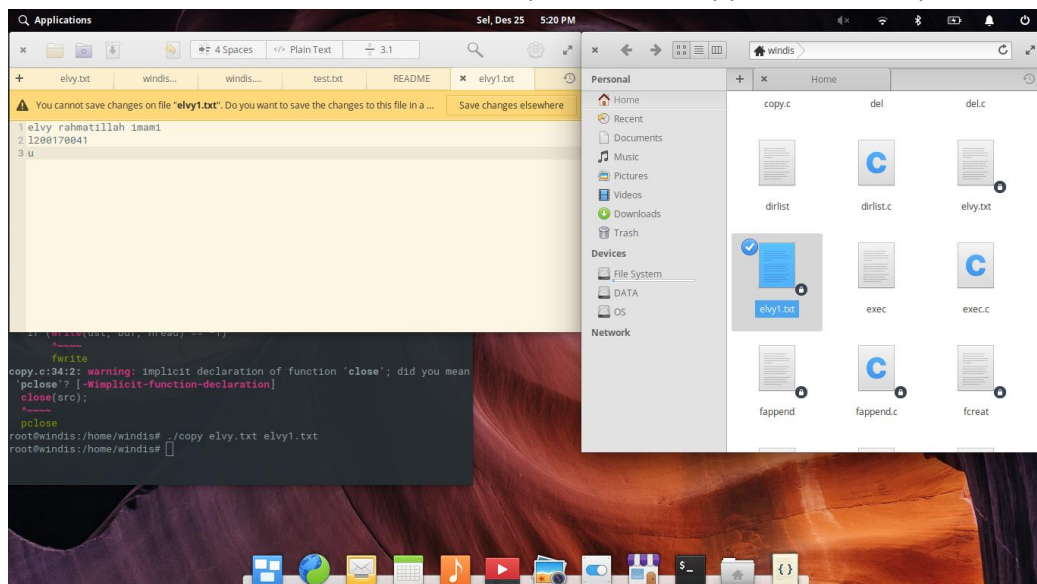
```
root@windis:/home/windis# nano copy.c
root@windis:/home/windis# gcc copy.c -o copy
copy.c: In function 'main':
copy.c:26:18: warning: implicit declaration of function 'read'; did you mean 'fread'? [-Wimplicit-function-declaration]
   while ((nread = read(src, buf, SIZE)) > 0)
                  ^~~~~
copy.c:28:7: warning: implicit declaration of function 'write'; did you mean 'fwrite'? [-Wimplicit-function-declaration]
   if (write(dst, buf, nread) == -1)
       ^~~~~
copy.c:34:2: warning: implicit declaration of function 'close'; did you mean 'pclose'? [-Wimplicit-function-declaration]
   close(src);
   ^~~~~
   pclose
root@windis:/home/windis#
```

3. Lihat hasilnya dengan ketik ./copy elvy.txt elvy1.txt



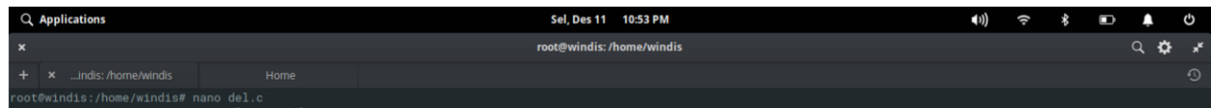
```
windis@windis:~$ sudo s
[sudo] password for windis:
windis@windis:~$ sudo su
root@windis:/home/windis# nano mygrep.c
root@windis:/home/windis# gcc mygrep.c -o mygrep
root@windis:/home/windis# ./mygrep elvy elvy.txt
elvy rahmatillah imami
root@windis:/home/windis# nano copy.c
root@windis:/home/windis# gcc copy.c -o copy
copy.c: In function 'main':
copy.c:26:18: warning: implicit declaration of function 'read'; did you mean 'fread'? [-Wimplicit-function-declaration]
   while ((nread = read(src, buf, SIZE)) > 0)
                  ^~~~~
copy.c:28:7: warning: implicit declaration of function 'write'; did you mean 'fwrite'? [-Wimplicit-function-declaration]
   if (write(dst, buf, nread) == -1)
       ^~~~~
copy.c:34:2: warning: implicit declaration of function 'close'; did you mean 'pclose'? [-Wimplicit-function-declaration]
   close(src);
   ^~~~~
   pclose
root@windis:/home/windis# ./copy elvy.txt elvy1.txt
root@windis:/home/windis#
```

Jika berhasil maka data di dalam file elvy.txt akan tercopy di file baru elvy1.txt



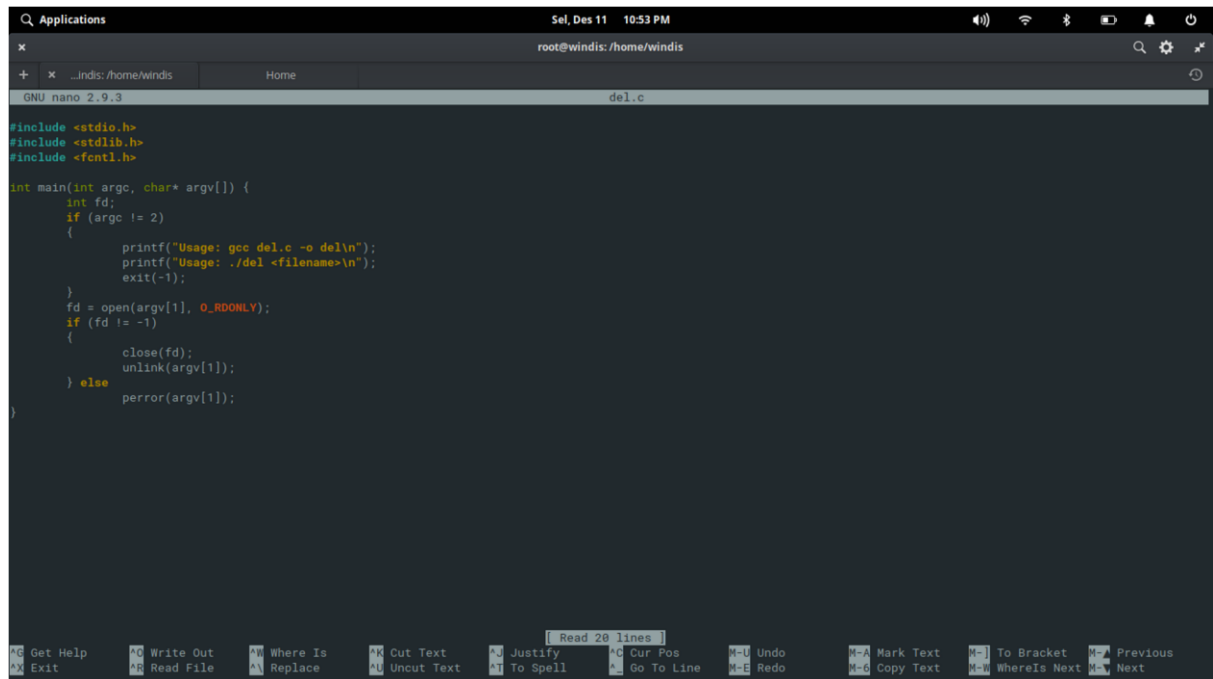
D . program untuk mensimulasikan perintah “rm”

1. Ketik nano del.c



```
root@windis:/home/windis# nano del.c
```

Kemudian ketikkan perintah seperti dibawah ini

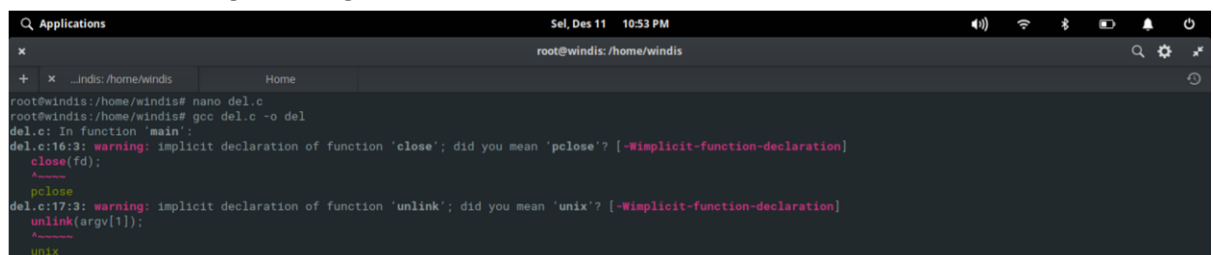


```
GNU nano 2.9.3 del.c
#include <stdio.h>
#include <stdlib.h>
#include <fcntl.h>

int main(int argc, char* argv[]) {
    int fd;
    if (argc != 2)
    {
        printf("Usage: gcc del.c -o del\n");
        printf("Usage: ./del <filename>\n");
        exit(-1);
    }
    fd = open(argv[1], O_RDONLY);
    if (fd != -1)
    {
        close(fd);
        unlink(argv[1]);
    } else
        perror(argv[1]);
}
```

Setelah itu disimpan dengan CTRL+X , terus Y , enter

2. Di cek dengan ketik gcc del.c -o del



```
root@windis:/home/windis# gcc del.c -o del
del.c: In function 'main':
del.c:16:3: warning: implicit declaration of function 'close'; did you mean 'pclose'? [-Wimplicit-function-declaration]
   close(fd);
   ^~~~~
del.c:17:3: warning: implicit declaration of function 'unlink'; did you mean 'unix'? [-Wimplicit-function-declaration]
   unlink(argv[1]);
   ^~~~~
unix
```

3. Lihat hasilnya dengan ketik ./del elvy1.txt

```

root@windis:/home/windis# nano del.c
root@windis:/home/windis# gcc del.c -o del
del.c: In function 'main':
del.c:16:3: warning: implicit declaration of function 'close'; did you mean 'pclose'
? [-Wimplicit-function-declaration]
    close(fd);
    ^~~~~~
    pclose
del.c:17:3: warning: implicit declaration of function 'unlink'; did you mean 'unix'?
[-Wimplicit-function-declaration]
    unlink(argv[1]);
    ^~~~~~
    unix
root@windis:/home/windis# ./del elvy1.txt
root@windis:/home/windis#

```

