

Nama : Aisyah Goevara

NIM : L200180034

Kelas : A

Laporan Praktikum SO Modul 10

List

The first screenshot shows the source code of 'list.c' in the nano editor. The code includes `<stdio.h>` and `<dirent.h>`, and implements a `main()` function that uses `scandir` to list files in the current directory. A status bar at the bottom indicates 'Wrote 16 lines'.

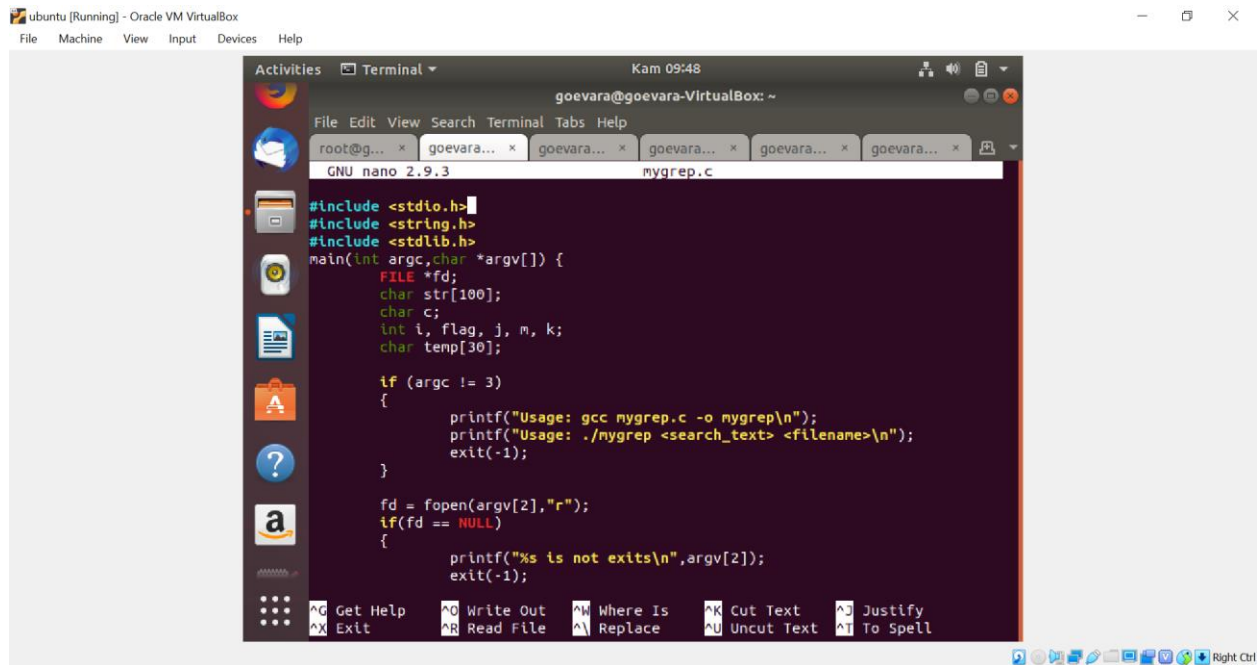
```
root@goevara-VirtualBox: /home/goevara
GNU nano 2.9.3 list.c
#include <stdio.h>
#include <dirent.h>
main() {
    struct dirent
    **namelist; int n, i;
    char pathname[100];
    getcwd(pathname);

    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);
}
```

The second screenshot shows the compilation and execution of the program. It displays compiler warnings for the `main` function and successful execution of the `./list` command, which lists the contents of the current directory.

```
goevara@goevara-VirtualBox: ~
root@g... * goevara... * goevara... * goevara... * goevara... * goevara... * goevara... *
goevara@goevara-VirtualBox:~$ gcc list.c -o list
list.c:3:1: warning: return type defaults to 'int' [-Wimplicit-int]
main() {
^~~~~~
list.c: In function 'main':
list.c:7:2: warning: implicit declaration of function 'getcwd'; did you mean 'getw'? [-Wimplicit-function-declaration]
    getcwd(pathname);
    ^~~~~~
getw
goevara@goevara-VirtualBox:~$ ./list
Desktop          Documents        Downloads        Music
Pictures         Public          Templates       Videos
a.out            copy.c          del.c           dirlist.c
examples.desktop latihan          list            list.c
mygrep.c         nano.save       stat.c          goevara@goevara
-VirtualBox:~$ gcc mygrep -o mygrep
gcc: fatal error: input file 'mygrep' is the same as output file
compilation terminated.
goevara@goevara-VirtualBox:~$ gcc mygrep -o mygrep
gcc: fatal error: input file 'mygrep' is the same as output file
compilation terminated.
goevara@goevara-VirtualBox:~$
```

Mygrep



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File Machine View Input Devices Help

Kam 09:48

goevara@goevara-VirtualBox: ~

File Edit View Search Terminal Tabs Help

root@g... x goevara... x goevara... x goevara... x goevara... x goevara... x

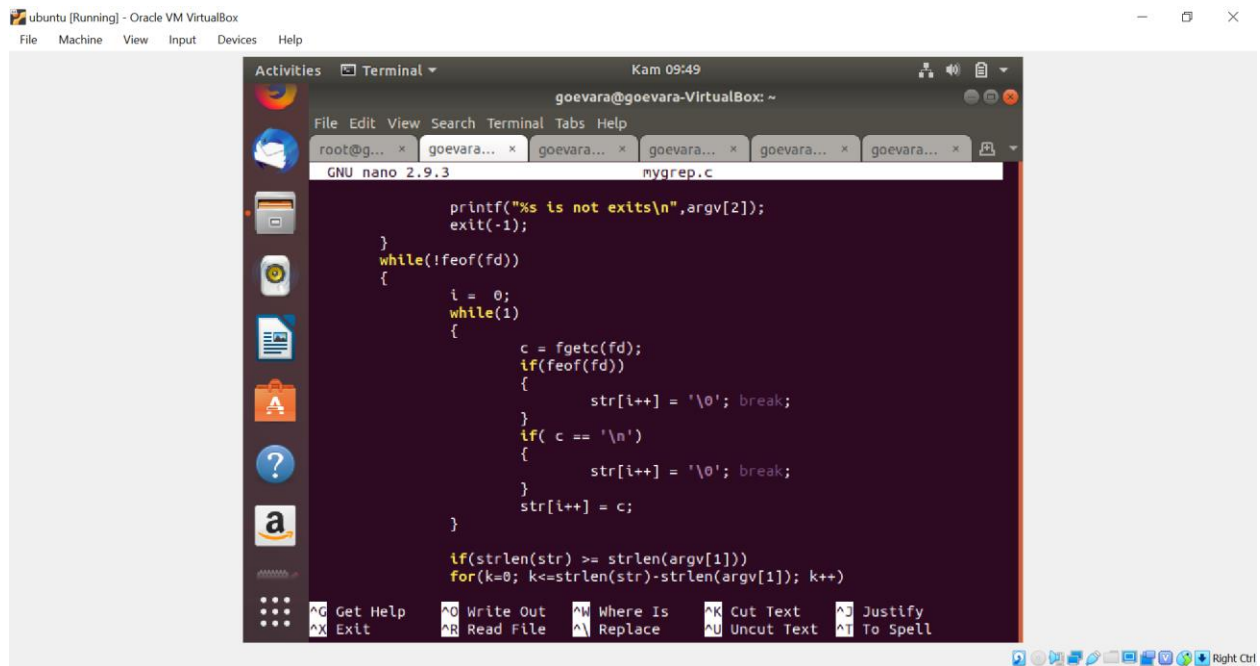
GNU nano 2.9.3 mygrep.c

```
#include <stdio.h>
#include <string.h>
#include <stdlib.h>
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 exists\n", argv[2]);
        exit(-1);
    }
```

Get Help Write Out Where Is Cut Text Justify
Exit Read File Replace Uncut Text To Spell



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File Machine View Input Devices Help

Kam 09:49

goevara@goevara-VirtualBox: ~

File Edit View Search Terminal Tabs Help

root@g... x goevara... x goevara... x goevara... x goevara... x goevara... x

GNU nano 2.9.3 mygrep.c

```
        printf("%s is not exists\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++)
```

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Activities Terminal Kam 09:49

goevara@goevara-VirtualBox: ~

File Edit View Search Terminal Tabs Help

root@g... * goevara... * goevara... * goevara... * goevara... * goevara... *

GNU nano 2.9.3 mygrep.c

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

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Activities Terminal Kam 09:45

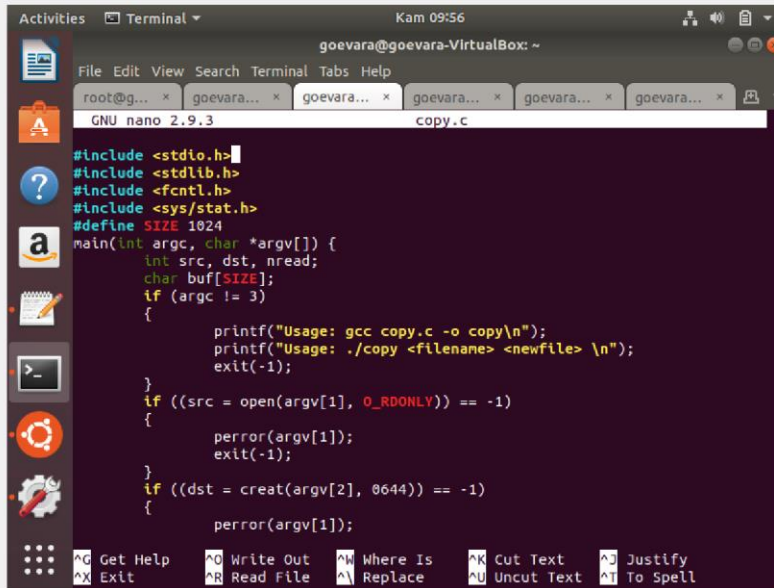
goevara@goevara-VirtualBox: ~

File Edit View Search Terminal Tabs Help

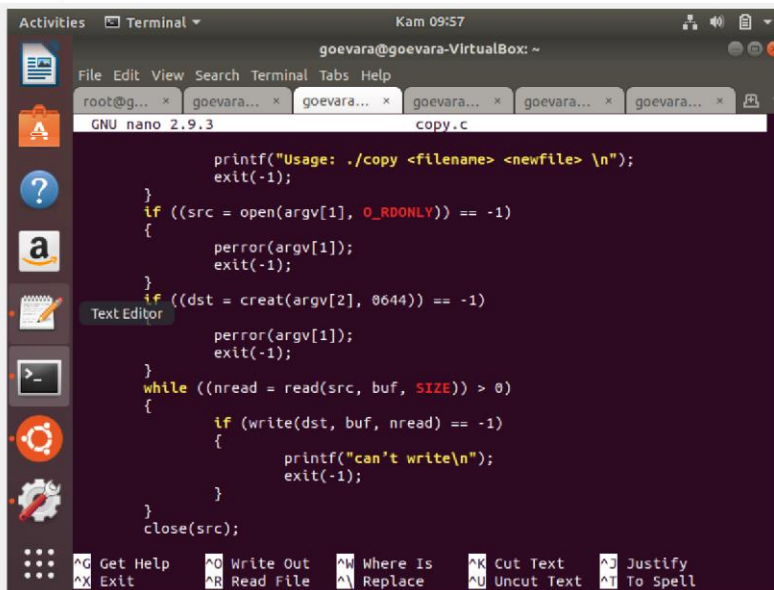
root@g... * goevara... * goevara... * goevara... * goevara... * goevara... *

```
goevara@goevara-VirtualBox:~$ ./mygrep include d
del.c dirlst.c
goevara@goevara-VirtualBox:~$ ./mygrep
bash: ./mygrep: No such file or directory
goevara@goevara-VirtualBox:~$ gcc mygrep.c -o mygrep
mygrep.c:4:1: warning: return type defaults to 'int' [-Wimplicit-int]
main(int argc,char *argv[]) {
^~~~~
mygrep.c: In function 'main':
mygrep.c:22:3: warning: implicit declaration of function 'exits'; did you mean
'exit'? [-Wimplicit-function-declaration]
    exits(-1);
    ^~~~~
/tmp/cc4II6ip.o: In function 'main':
mygrep.c:(.text+0xb4): undefined reference to 'exits'
collect2: error: ld returned 1 exit status
goevara@goevara-VirtualBox:~$ nano mygrep.c
goevara@goevara-VirtualBox:~$ gcc mygrep.c -o mygrep
mygrep.c:4:1: warning: return type defaults to 'int' [-Wimplicit-int]
main(int argc,char *argv[]) {
^~~~~
goevara@goevara-VirtualBox:~$ ./mygrep include del.c
#include <stdio.h>
#include <stdlib.h>
#include <fcntl.h>
goevara@goevara-VirtualBox:~$
```

Copy



```
goevara@goevara-VirtualBox: ~  
File Edit View Search Terminal Tabs Help  
root@g... * goevara... * goevara... * goevara... * goevara... * goevara... *  
GNU nano 2.9.3 copy.c  
#include <stdio.h>  
#include <stdlib.h>  
#include <fcntl.h>  
#include <sys/stat.h>  
#define SIZE 1024  
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]);  
    }  
    while ((nread = read(src, buf, SIZE)) > 0)  
    {  
        if (write(dst, buf, nread) == -1)  
        {  
            printf("can't write\n");  
            exit(-1);  
        }  
    }  
    close(src);  
}
```



```
goevara@goevara-VirtualBox: ~  
File Edit View Search Terminal Tabs Help  
root@g... * goevara... * goevara... * goevara... * goevara... * goevara... *  
GNU nano 2.9.3 copy.c  
        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);  
}
```

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File Machine View Input Devices Help

Activities Terminal Kam 09:56

goevara@goevara-VirtualBox: ~

File Edit View Search Terminal Tabs Help

root@g... x goevara... x goevara... x goevara... x goevara... x goevara... x

```
goevara@goevara-VirtualBox:~$ gcc copy.c -o copy
copy.c:6:1: warning: return type defaults to 'int' [-Wimplicit-int]
main(int argc, char *argv[]) {
^
copy.c: In function 'main':
copy.c:25:18: warning: implicit declaration of function 'read'; did you mean 'f
read'? [-Wimplicit-function-declaration]
    while ((nread = read(src, buf, SIZE)) > 0)
                   ^
copy.c:27:7: warning: implicit declaration of function 'write'; did you mean 'f
write'? [-Wimplicit-function-declaration]
    if (write(dst, buf, nread) == -1)
        ^
copy.c:33:2: warning: implicit declaration of function 'close'; did you mean 'p
close'? [-Wimplicit-function-declaration]
    close(src);
    ^
goevara@goevara-VirtualBox:~$ ./copy mygrep.c grep.c
goevara@goevara-VirtualBox:~$ ls
a.out  Desktop  examples.desktop  list  mygrep.c  stat.c
copy  dirlist.c  goevara          list.c  nano.save  Templates
copy.c  Documents  grep.c          Music  Pictures  Videos
del.c  Downloads  latihan        mygrep  Public
goevara@goevara-VirtualBox:~$
```

Right Ctrl

Del

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File Machine View Input Devices Help

Activities Terminal Kam 10:00

goevara@goevara-VirtualBox: ~

File Edit View Search Terminal Tabs Help

root@g... x goevara... x goevara... x goevara... x goevara... x goevara... x

GNU nano 2.9.3 del.c

```
#include <stdio.h>
#include <stdlib.h>
#include <fcntl.h>
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]);
}
```

[Wrote 20 lines]

^G Get Help ^O Write Out ^M Where Is ^K Cut Text ^J Justify
^X Exit ^R Read File ^\ Replace ^U Uncut Text ^T To Spell

Right Ctrl


```
govevara@govevara-VirtualBox: ~  
File Edit View Search Terminal Tabs Help  
root@g... * goevara... * goevara... * goevara... * goevara... * goevara... *  
copy.c Documents grep.c Music Pictures Videos  
del.c Downloads latihan mygrep Public  
govevara@govevara-VirtualBox:~$ gcc del.c -o del  
del.c:4:1: warning: return type defaults to 'int' [-Wimplicit-int]  
main(int argc, char* argv[]) {  
    ~~~~~  
del.c: In function 'main':  
del.c:15:3: warning: implicit declaration of function 'close'; did you mean 'pc  
lose'? [-Wimplicit-function-declaration]  
    close(fd);  
    ~~~~~  
pclose  
del.c:16:3: warning: implicit declaration of function 'unlink'; did you mean 'u  
nix'? [-Wimplicit-function-declaration]  
    unlink(argv[1]);  
    ~~~~~  
    unix  
govevara@govevara-VirtualBox:~$ ./del  
Usage: gcc del.c -o del  
Usage: ./del <filename>  
govevara@govevara-VirtualBox:~$ ./del grep.c  
govevara@govevara-VirtualBox:~$ ls  
a.out del.c Downloads list mygrep.c stat.c  
copy Desktop examples.desktop list.c nano.save Templates  
copy.c dirlist.c goevara Music Pictures Videos  
del Documents latihan mygrep Public  
govevara@govevara-VirtualBox:~$
```