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MODUL 10

1. list.c

- a. Ketik "nano list.c" untuk membuat file bernama list.c



```
1:root@fitri-X456URK:/home/fitri
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);

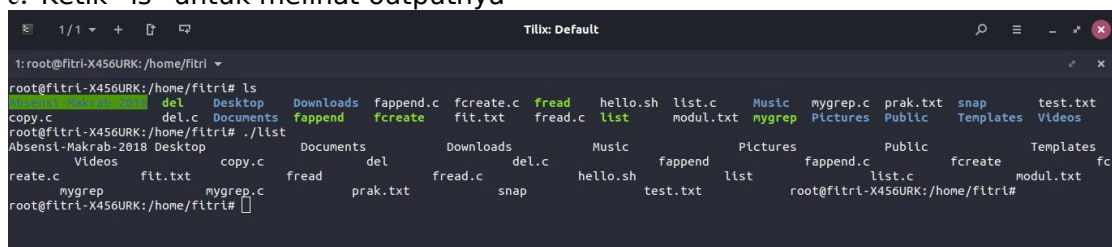
    n = scandir(pathname, &namelist, 0, alphasort);
    if(n < 0)
        printf("Error\n");
    else
        for(i=0; i<n; i++) if(namelist[i]->d_name[0] != '.')
            printf("%-20s", namelist[i]->d_name);
}
```

- b. Ketik "gcc -o list list.c" untuk mengecek apakah codingan sudah benar atau belum



```
1:root@fitri-X456URK:/home/fitri
root@fitri-X456URK:/home/fitri# nano list.c
root@fitri-X456URK:/home/fitri# gcc -o list list.c
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
root@fitri-X456URK:/home/fitri#
```

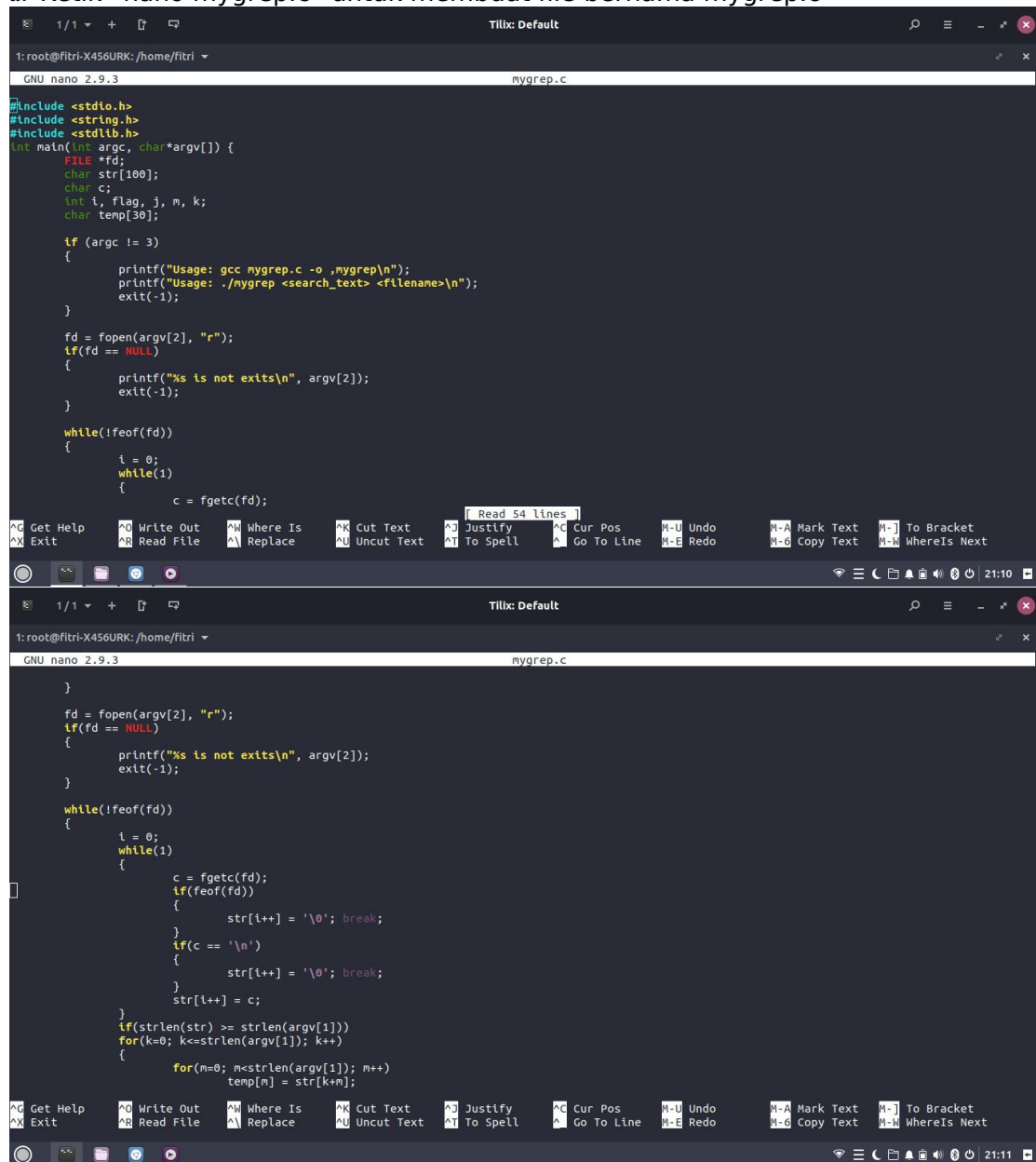
- c. Ketik "ls" untuk melihat outputnya



```
1:root@fitri-X456URK:/home/fitri
root@fitri-X456URK:/home/fitri# ls
copy.c      del       Desktop  Downloads  fappend.c  fcreate.c  fread.c  hello.sh  list.c  Music  mygrep.c  prak.txt  snap  test.txt
copy.c      del.c    Documents fappend    fcreate    fit.txt    fread.c  list     modul.txt mygrep  Pictures  Public   Templates Videos
Absensi-Makrab-2018 Desktop Documents Downloads Music Pictures Public Templates
Videos      fit.txt  copy.c    fread      del        fread.c    hello.sh  fappend  list     fappend.c list.c    fcreate  modul.txt fc
mygrep      mygrep.c prak.txt  snap       snap       snap       test.txt  list     root@fitri-X456URK:/home/fitri#
```

2. mygrep.c

a. Ketik “nano mygrep.c” untuk membuat file bernama mygrep.c



The image shows two screenshots of a terminal window titled "Tilix: Default" at the prompt "1:root@fitri-X456URK: /home/fitri". The terminal displays the GNU nano 2.9.3 editor editing a file named mygrep.c.

The first screenshot shows the initial code in mygrep.c:

```
#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 exists\n", argv[2]);
        exit(-1);
    }

    while(!feof(fd))
    {
        i = 0;
        while(1)
        {
            c = fgetc(fd);
```

The second screenshot shows the code after further editing. The while loop is now more complex, including a check for the end of the file and a comparison of the search string with the current line:

```
        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(argv[1]); k++)
    {
        for(m=0; m<strlen(argv[1]); m++)
            temp[m] = str[k+m];
```

```
1:root@fitri-X456URK: /home/fitri
GNU nano 2.9.3 mygrep.c

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

b. Ketik “gcc -o mygrep mygrep.c” untuk mengecek sudah benar atau belum

```
1:root@fitri-X456URK: /home/fitri
root@fitri-X456URK:/home/fitri# nano mygrep.c
root@fitri-X456URK:/home/fitri# gcc -o mygrep mygrep.c
root@fitri-X456URK:/home/fitri# ./mygrep Darl fit.txt
Darl Ngawl
root@fitri-X456URK:/home/fitri#
```

c. Ketik “./mygrep ya fit.txt”

```
1:fitri@fitri-X456URK: ~
fitri@fitri-X456URK:~$ nano mygrep.c
fitri@fitri-X456URK:~$ gcc -o mygrep mygrep.c
fitri@fitri-X456URK:~$ ./mygrep fit fit.txt
fitri@fitri-X456URK:~$ ./mygrep Fit fit.txt
fitri@fitri-X456URK:~$ ./mygrep ya fit.txt
saya Fitri
fitri@fitri-X456URK:~$
```

3. copy.c

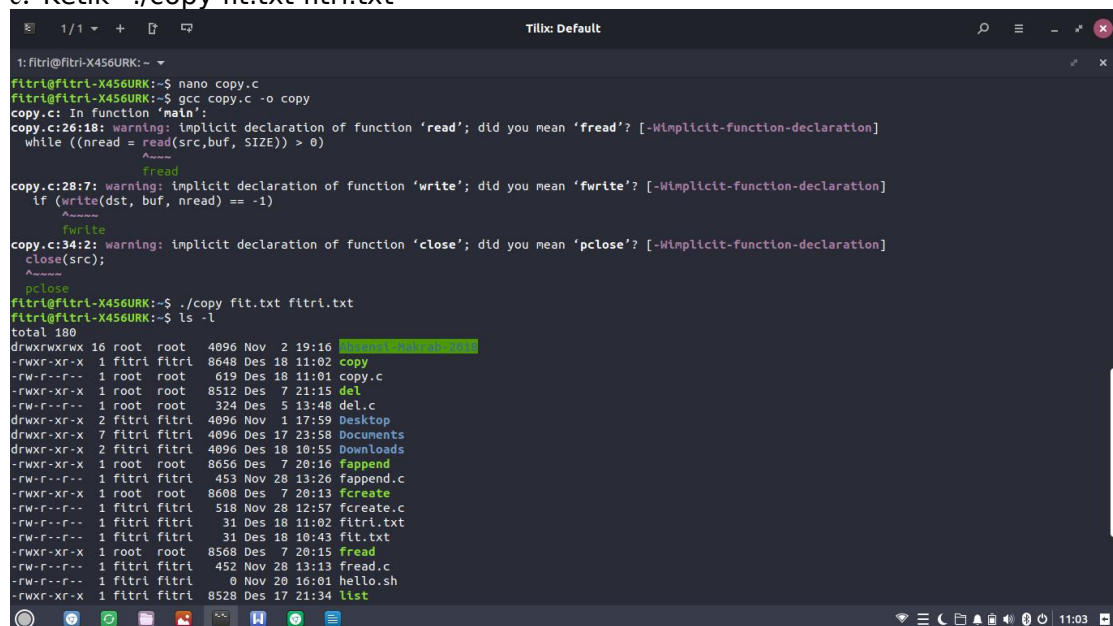
a. Ketik “nano copy.c” untuk membuat file bernama copy.c



```
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);
        }
    }
}
```

b. Ketik “gcc copy.c -o copy” untuk mengecek apakah sudah benar atau belum

c. Ketik “./copy fit.txt fitri.txt”



```
fitri@fitri-X456URK:~$ nano copy.c
fitri@fitri-X456URK:~$ 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);
    ^~~~~~
fitri@fitri-X456URK:~$ ./copy fit.txt fitri.txt
fitri@fitri-X456URK:~$ ls -l
total 180
drwxrwxrwx 16 root root 4096 Nov  2 19:16 /
-rwxr-xr-x  1 fitri fitri 8648 Dec 18 11:02 copy
-rw-r--r--  1 root root  619 Dec 18 11:01 copy.c
-rwxr-xr-x  1 root root 8512 Dec  7 21:15 del
-rw-r--r--  1 root root  324 Dec  5 13:48 del.c
drwxr-xr-x  2 fitri fitri 4096 Nov  1 17:59 Desktop
drwxr-xr-x  7 fitri fitri 4096 Dec 17 23:50 Documents
drwxr-xr-x  2 fitri fitri 4096 Dec 19 10:55 Downloads
-rwxr-xr-x  1 root root 8656 Dec  7 20:16 fappend
-rw-r--r--  1 fitri fitri  453 Nov 28 13:26 fappend.c
-rwxr-xr-x  1 root root 8608 Dec  7 20:13 fcreate
-rw-r--r--  1 fitri fitri  518 Nov 28 12:57 fcreate.c
-rw-r--r--  1 fitri fitri   31 Dec 18 11:02 fitri.txt
-rw-r--r--  1 fitri fitri   31 Dec 18 10:43 fit.txt
-rwxr-xr-x  1 root root 8568 Dec  7 20:15 fread
-rw-r--r--  1 fitri fitri  452 Nov 28 13:13 fread.c
-rw-r--r--  1 fitri fitri    8 Nov 28 10:01 hello.sh
-rwxr-xr-x  1 fitri fitri 8528 Dec 17 21:34 list
```

```
Tilix: Default
1:fitri@fitri-X456URK: ~
pclose
fitri@fitri-X456URK:~$ ./copy fit.txt fitri.txt
fitri@fitri-X456URK:~$ ls -l
total 180
drwxrwxrwx 16 root root 4096 Nov 2 19:16 Desktop
-rwxr-xr-x 1 fitri fitri 8648 Des 18 11:02 copy
-rw-r--r-- 1 root root 619 Des 18 11:01 copy.c
-rwxr-xr-x 1 root root 8512 Des 7 21:15 del
-rw-r--r-- 1 root root 324 Des 5 13:48 del.c
drwxr-xr-x 2 fitri fitri 4096 Nov 1 17:59 Desktop
drwxr-xr-x 7 fitri fitri 4096 Des 17 23:58 Documents
drwxr-xr-x 2 fitri fitri 4096 Des 18 10:55 Downloads
-rwxr-xr-x 1 root root 8656 Des 7 20:16 fappend
-rw-r--r-- 1 fitri fitri 453 Nov 28 13:26 fappend.c
-rwxr-xr-x 1 root root 8608 Des 7 20:13 fcreate
-rw-r--r-- 1 fitri fitri 518 Nov 28 12:57 fcreate.c
-rw-r--r-- 1 fitri fitri 31 Des 18 11:02 fitri.txt
-rw-r--r-- 1 fitri fitri 31 Des 18 10:43 fit.txt
-rwxr-xr-x 1 root root 8568 Des 7 20:15 fread
-rw-r--r-- 1 fitri fitri 452 Nov 28 13:13 fread.c
-rw-r--r-- 1 fitri fitri 8 Nov 28 16:01 hello.sh
-rwxr-xr-x 1 fitri fitri 8528 Des 17 21:34 list
-rw-r--r-- 1 root root 315 Des 5 12:49 list.c
-rw-r--r-- 1 root root 24 Des 7 20:17 modul.txt
drwxr-xr-x 2 fitri fitri 4096 Okt 16 01:53 Music
-rwxr-xr-x 1 fitri fitri 8656 Des 18 10:42 mygrep
-rw-r--r-- 1 root root 845 Des 5 13:10 mygrep.c
drwxr-xr-x 2 fitri fitri 12288 Des 18 10:47 Pictures
-rw-r--r-- 1 fitri fitri 41 Nov 30 13:33 prak.txt
drwxr-xr-x 2 fitri fitri 4096 Okt 16 01:53 Public
drwxr-xr-x 6 fitri fitri 4096 Nov 28 10:29 snap
drwxr-xr-x 2 fitri fitri 4096 Nov 1 17:59 Templates
-rw-r--r-- 1 fitri fitri 16 Des 5 13:35 test.txt
drwxr-xr-x 3 fitri fitri 4096 Nov 29 12:01 Videos
fitri@fitri-X456URK:~$
```

4. del.c

- Ketik "nano del.c" untuk membuat file bernama del.c
- Ketik "gcc -o copy copy.c" untuk mengecek apakah sudah benar atau belum

```
Tilix: Default
1:root@fitri-X456URK: /home/fitri
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]);
}

^G Get Help      ^O Write Out    ^W Where Is     ^K Cut Text     ^J Justify      ^C Cur Pos      ^M-U Undo       ^M-A Mark Text   ^M-] To Bracket
^X Exit          ^R Read File    ^_ Replace      ^U Uncut Text   ^T To Spell     ^_ Go To Line   ^M-B Redo       ^M-G Copy Text   ^M-_ WhereIs Next

^G Read 19 lines
root@fitri-X456URK: /home/fitri
root@fitri-X456URK: /home/fitri# nano del.c
root@fitri-X456URK: /home/fitri# gcc -o del del.c
del.c: In function 'main':
del.c:15:3: warning: implicit declaration of function 'close'; did you mean 'pclose'? [-Wimplicit-function-declaration]
    close(fd);
    ^~~~~~
pclose
del.c:16:3: warning: implicit declaration of function 'unlink'; did you mean 'unix'? [-Wimplicit-function-declaration]
    unlink(argv[1]);
    ^~~~~~
unix
root@fitri-X456URK: /home/fitri#
```

- Ketik "./del fit.txt" untuk menghapus file fit.txt

```
Tilix: Default
1:root@fitri-X456URK: /home/fitri
root@fitri-X456URK: /home/fitri# ./del fit.txt
root@fitri-X456URK: /home/fitri#
```

```
1:root@fitri-X456URK:/home/fitri
root@fitri-X456URK:/home/fitri# ./del fit.txt
root@fitri-X456URK:/home/fitri# ./list
Absensi-Makrab-2018 Desktop Documents Downloads Music Pictures Public Templates
Videos copy.c del del.c fappend fappend.c fappend.c fcreate mygrep fc
reate.c fread fread.c hello.sh list list.c modul.txt mygrep fc
mygrep.c prak.txt snap test.txt
root@fitri-X456URK:/home/fitri#
```