

LAPORAN PRAKTIKUM
MATA KULIAH PRAKTIKUM SISTEM OPERASI
MODUL 9 FILE SYSTEM CALL



Disusun Oleh :
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Kelas E

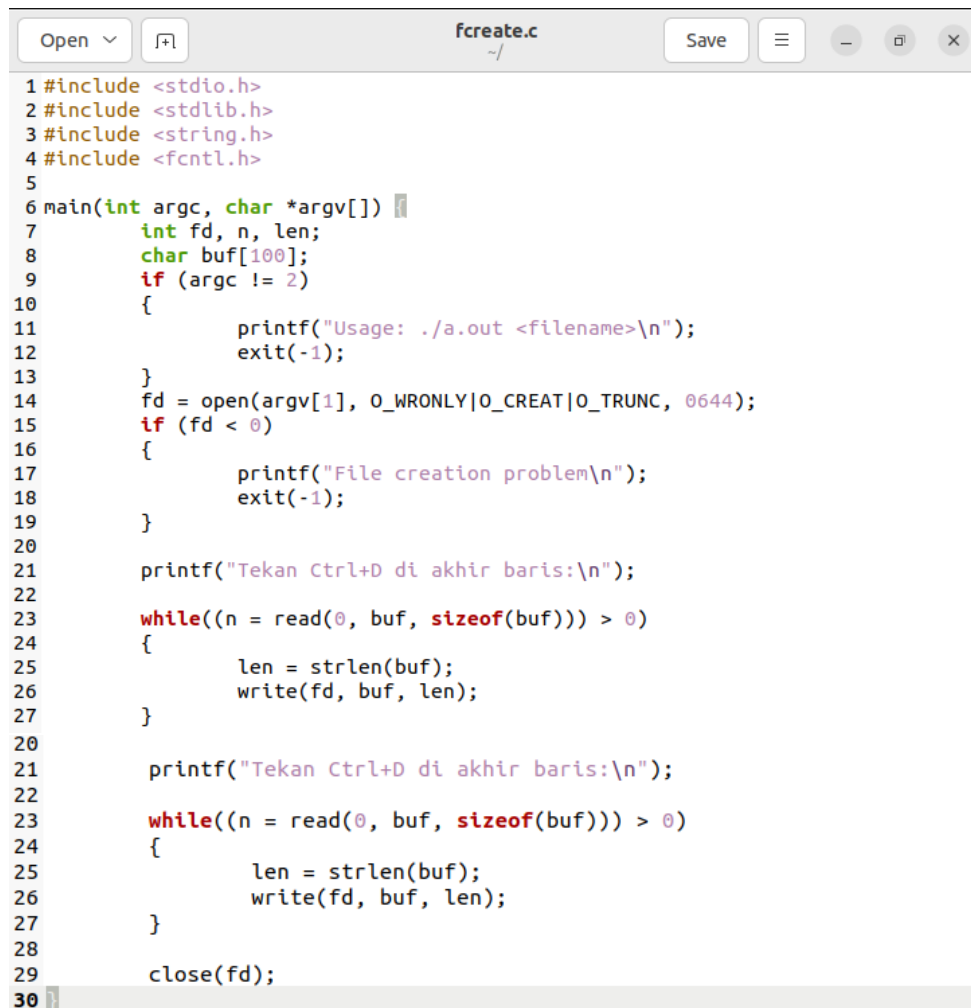
PROGRAM STUDI TEKNIK INFORMATIKA
FAKULTAS KOMUNIKASI DAN INFORMATIKA
UNIVERSITAS MUHAMMADIYAH SURAKARTA
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Laporan Praktikum Modul 9

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LANGKAH KERJA

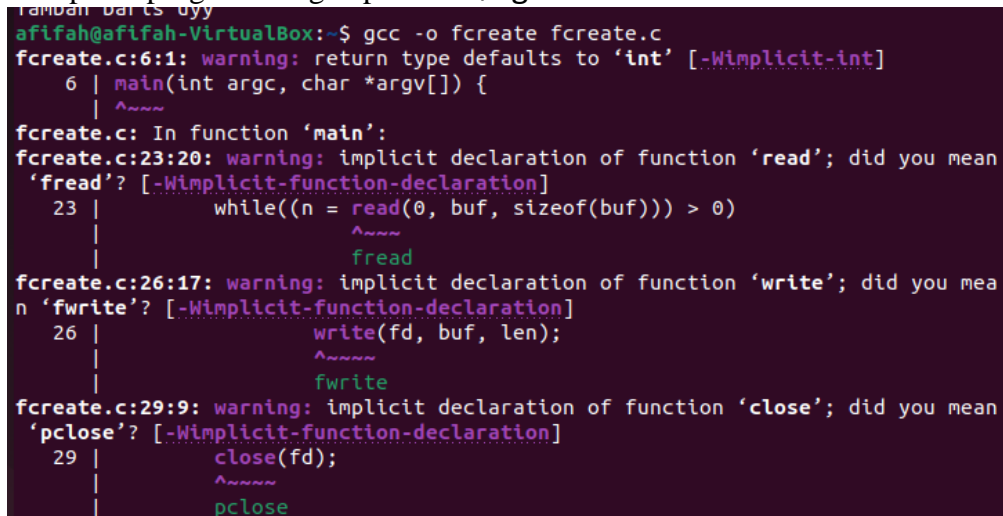
1. Membuat sebuah file dan menuliskan data di dalamnya
⇒ Berikut adalah *screenshot* dari fcreate.c



```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <string.h>
4 #include <fcntl.h>
5
6 main(int argc, char *argv[]) {
7     int fd, n, len;
8     char buf[100];
9     if (argc != 2)
10    {
11        printf("Usage: ./a.out <filename>\n");
12        exit(-1);
13    }
14    fd = open(argv[1], O_WRONLY|O_CREAT|O_TRUNC, 0644);
15    if (fd < 0)
16    {
17        printf("File creation problem\n");
18        exit(-1);
19    }
20
21    printf("Tekan Ctrl+D di akhir baris:\n");
22
23    while((n = read(0, buf, sizeof(buf))) > 0)
24    {
25        len = strlen(buf);
26        write(fd, buf, len);
27    }
28
29    printf("Tekan Ctrl+D di akhir baris:\n");
30
31    while((n = read(0, buf, sizeof(buf))) > 0)
32    {
33        len = strlen(buf);
34        write(fd, buf, len);
35    }
36
37    close(fd);
38 }
```

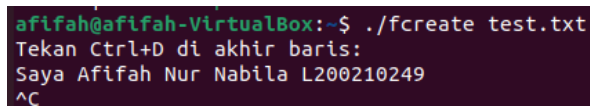
⇒ Berikut adalah *screenshot* dari terminal

Compilasi program dengan perintah `$ gcc -o fcreate fcreate.c`



```
afifah@afifah-VirtualBox:~$ gcc -o fcreate fcreate.c
fcreate.c:6:1: warning: return type defaults to 'int' [-Wimplicit-int]
  6 | main(int argc, char *argv[]) {
    | ^~~~~
fcreate.c: In function 'main':
fcreate.c:23:20: warning: implicit declaration of function 'read'; did you mean
'fread'? [-Wimplicit-function-declaration]
   23 |     while((n = read(0, buf, sizeof(buf))) > 0)
      |                   ^~~~~
      |                   fread
fcreate.c:26:17: warning: implicit declaration of function 'write'; did you mean
'n' 'fwrite'? [-Wimplicit-function-declaration]
   26 |     write(fd, buf, len);
      |     ^~~~~
      |     fwrite
fcreate.c:29:9: warning: implicit declaration of function 'close'; did you mean
'pclose'? [-Wimplicit-function-declaration]
   29 |     close(fd);
      |     ^~~~~
      |     pclose
```

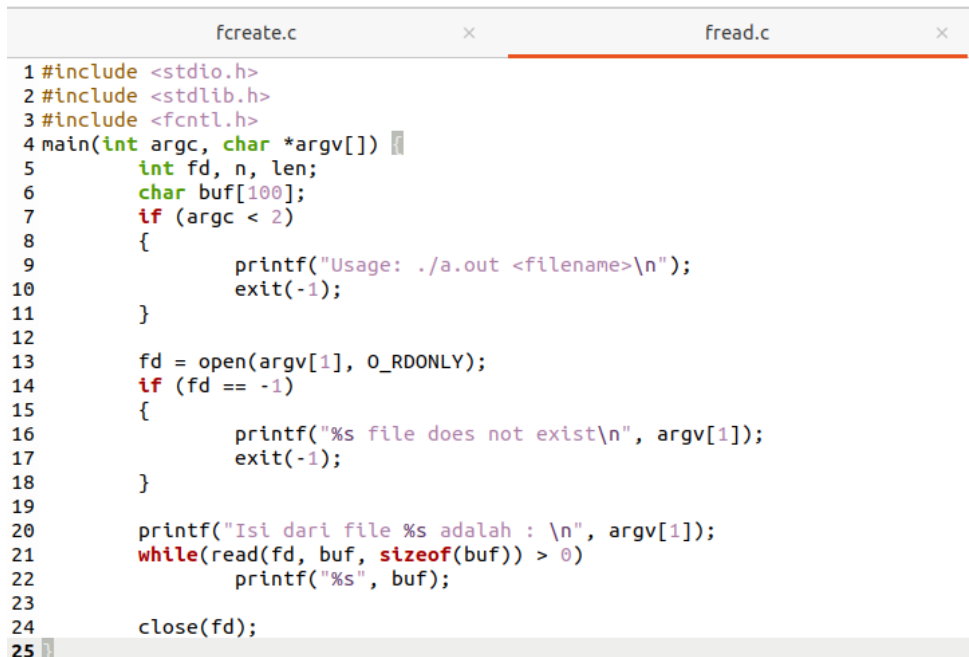
Jalankan program dengan memanggil nama file `$./fcreate test.txt`, kemudian Ctrl+D dan Ctrl+C



```
afifah@afifah-VirtualBox:~$ ./fcreate test.txt
Tekan Ctrl+D di akhir baris:
Saya Afifah Nur Nabila L200210249
^C
```

2. Membaca sebuah file dan menampilkan isinya di layar

⇒ Berikut adalah *screenshot* dari fread.c



```
fcreate.c  x  fread.c  x
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <fcntl.h>
4 main(int argc, char *argv[]) {
5     int fd, n, len;
6     char buf[100];
7     if (argc < 2)
8     {
9         printf("Usage: ./a.out <filename>\n");
10        exit(-1);
11    }
12
13    fd = open(argv[1], O_RDONLY);
14    if (fd == -1)
15    {
16        printf("%s file does not exist\n", argv[1]);
17        exit(-1);
18    }
19
20    printf("Isi dari file %s adalah : \n", argv[1]);
21    while(read(fd, buf, sizeof(buf)) > 0)
22        printf("%s", buf);
23
24    close(fd);
25 }
```

⇒ Berikut adalah *screenshot* dari terminal

Compilasi program dengan perintah `$ gcc -o fread fread.c`

```
afifah@afifah-VirtualBox:~$ gcc -o fread fread.c
fread.c:4:1: warning: return type defaults to 'int' [-Wimplicit-int]
  4 | main(int argc, char *argv[]) {
    | ^~~~
fread.c: In function 'main':
fread.c:21:15: warning: implicit declaration of function 'read'; did you mean '
fread'? [-Wimplicit-function-declaration]
   21 |         while(read(fd, buf, sizeof(buf)) > 0)
       |               ^~~~
fread.c:24:9: warning: implicit declaration of function 'close'; did you mean '
pclose'? [-Wimplicit-function-declaration]
   24 |         close(fd);
       |         ^~~~~
       |         pclose
```

Jalankan program dengan memanggil nama file `$./fread test.txt`

```
afifah@afifah-VirtualBox:~$ ./fread test.txt
Isi dari file test.txt adalah :
Saya Afifah Nur Nabila L200210249
```

Pesan yang disimpan dalam file yang dituliskan pada `fcreate.c` dibaca dan ditampilkan dengan `fread.c`

3. Menambah isi file

⇒ Berikut adalah *screenshot* dari `fappend.c`

```
fcreate.c  x  fread.c  x  fappend.c  x
1 #include <stdio.h>
2 #include <string.h>
3 #include <stdlib.h>
4 #include <fcntl.h>
5 main (int argc, char *argv[]) {
6     int fd, n, len;
7     char buf[100];
8     if (argc != 2)
9     {
10         printf("Usage: ./a.out <filename>\n"); exit(-1);
11     }
12     fd = open(argv[1], O_APPEND|O_WRONLY|O_CREAT, 0644);
13     if (fd < 0)
14     {
15         perror(argv[1]);
16         exit(-1);
17     }
18     while((n = read(0, buf, sizeof(buf))) > 0)
19     {
20         len = strlen(buf);
21         write(fd, buf, len);
22     }
23     close(fd);
24 }
25
```

⇒ Berikut adalah *screenshot* dari terminal

Compilasi program dengan perintah `$ gcc -o fappend fappend.c`

```
afifah@afifah-VirtualBox:~$ gcc -o fappend fappend.c
fappend.c:5:1: warning: return type defaults to 'int' [-Wimplicit-int]
    5 | main (int argc, char *argv[]) {
      | ^~~~~
fappend.c: In function 'main':
fappend.c:19:20: warning: implicit declaration of function 'read'; did you mean
'fread'? [-Wimplicit-function-declaration]
   19 |         while((n = read(0, buf, sizeof(buf))) > 0)
      |                    ^~~~~
      |                    fread
fappend.c:22:17: warning: implicit declaration of function 'write'; did you mean
n 'fwrite'? [-Wimplicit-function-declaration]
   22 |         write(fd, buf, len);
      |         ^~~~~
      |         fwrite
fappend.c:24:9: warning: implicit declaration of function 'close'; did you mean
'pclose'? [-Wimplicit-function-declaration]
   24 |         close(fd);
      |         ^~~~~
      |         pclose
```

Jalankan program dengan memanggil nama file `$./fappend test.txt` dan menambahkan pesan, kemudian Ctrl+D dan Ctrl+C

```
afifah@afifah-VirtualBox:~$ ./fappend test.txt
Menambah baris, hiiii Afifah
^C
```

Pesan yang ditambah pada `fappend.c` dibaca dan ditampilkan dengan `fread.c`

```
afifah@afifah-VirtualBox:~$ ./fread test.txt
Isi dari file test.txt adalah :
Saya Afifah Nur Nabila L200210249
Menambah baris, hiiii Afifah
afifah@afifah-VirtualBox:~$
```