

PRAKTIKUM SISTEM OPERASI
MODUL 9
FILE SYSTEM CALL

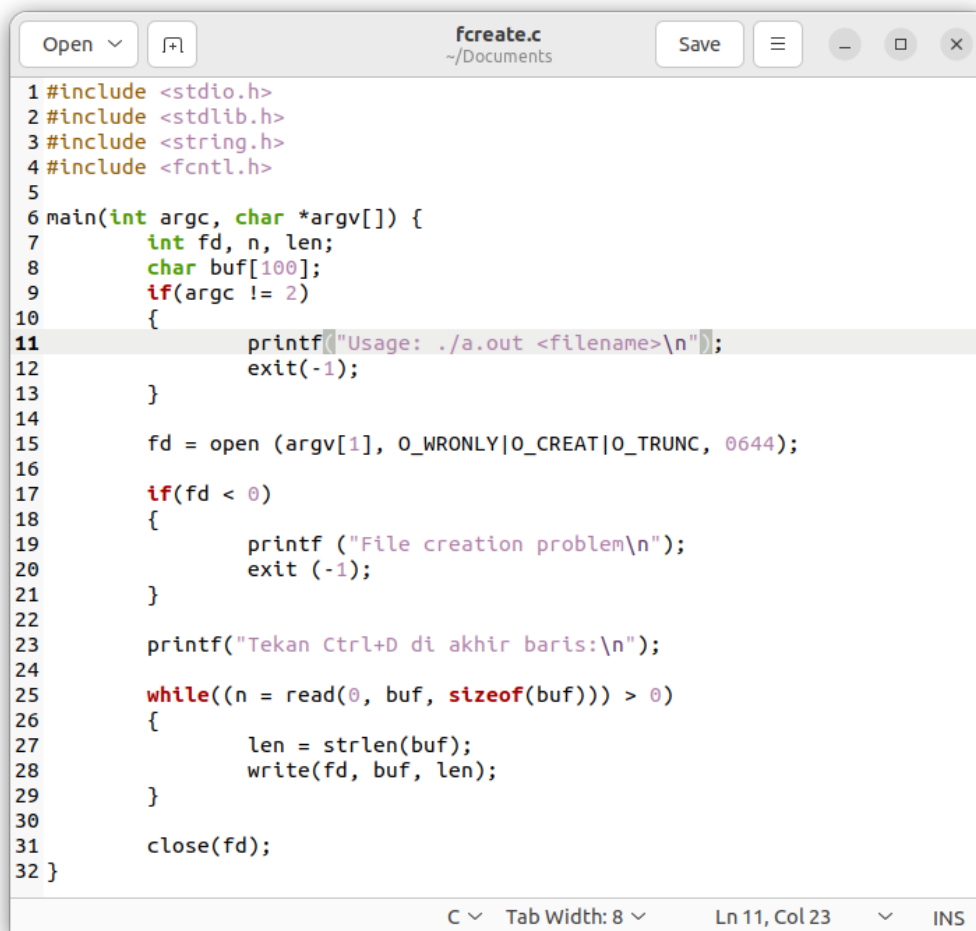


Oleh :
Dian Putri Mutiara Hapsari
L200210238

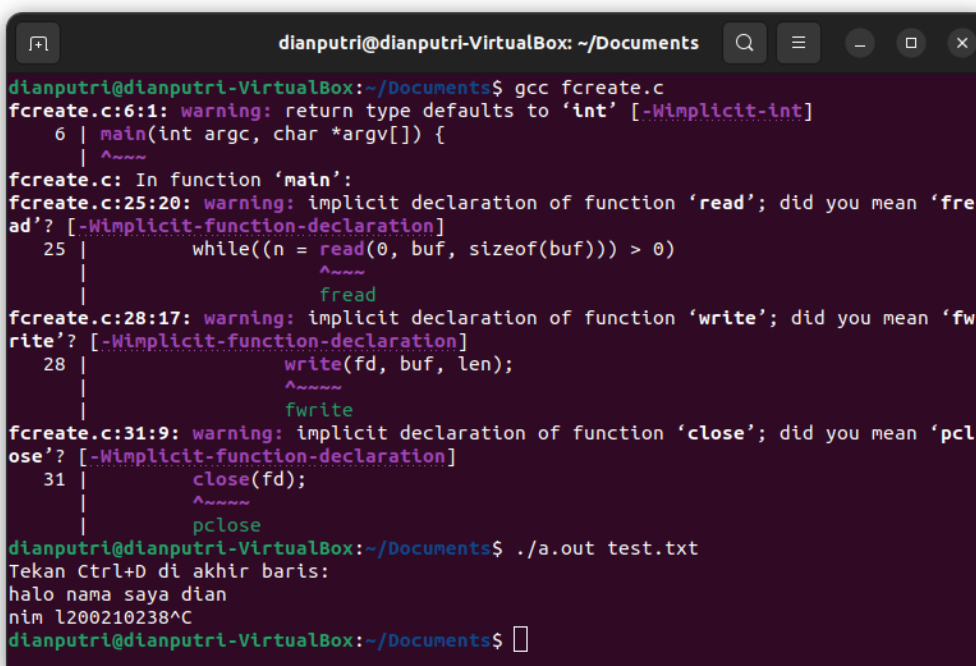
PROGRAM STUDI TEKNIK INFORMATIKA
FAKULTAS KOMUNIKASI DAN INFORMATIKA
UNIVERSITAS MUHAMMADIYAH SURAKARTA
2021

Praktikum 1

Membuat sebuah file dan menuliskan data di dalamnya.




```
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
15    fd = open (argv[1], O_WRONLY|O_CREAT|O_TRUNC, 0644);
16
17    if(fd < 0)
18    {
19        printf ("File creation problem\n");
20        exit (-1);
21    }
22
23    printf("Tekan Ctrl+D di akhir baris:\n");
24
25    while((n = read(0, buf, sizeof(buf))) > 0)
26    {
27        len = strlen(buf);
28        write(fd, buf, len);
29    }
30
31    close(fd);
32 }
```



```
dianputri@dianputri-VirtualBox: ~/Documents
dianputri@dianputri-VirtualBox:~/Documents$ gcc 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:25:20: warning: implicit declaration of function 'read'; did you mean 'fre
ad'? [-Wimplicit-function-declaration]
  25 |         while((n = read(0, buf, sizeof(buf))) > 0)
      |                   ^~~~~
      |                   fread
fcreate.c:28:17: warning: implicit declaration of function 'write'; did you mean 'fw
rite'? [-Wimplicit-function-declaration]
  28 |             write(fd, buf, len);
      |             ^~~~~
      |             fwrite
fcreate.c:31:9: warning: implicit declaration of function 'close'; did you mean 'pcl
ose'? [-Wimplicit-function-declaration]
  31 |         close(fd);
      |         ^~~~~
      |         pclose
dianputri@dianputri-VirtualBox:~/Documents$ ./a.out test.txt
Tekan Ctrl+D di akhir baris:
halo nama saya dian
nim l200210238^C
dianputri@dianputri-VirtualBox:~/Documents$
```

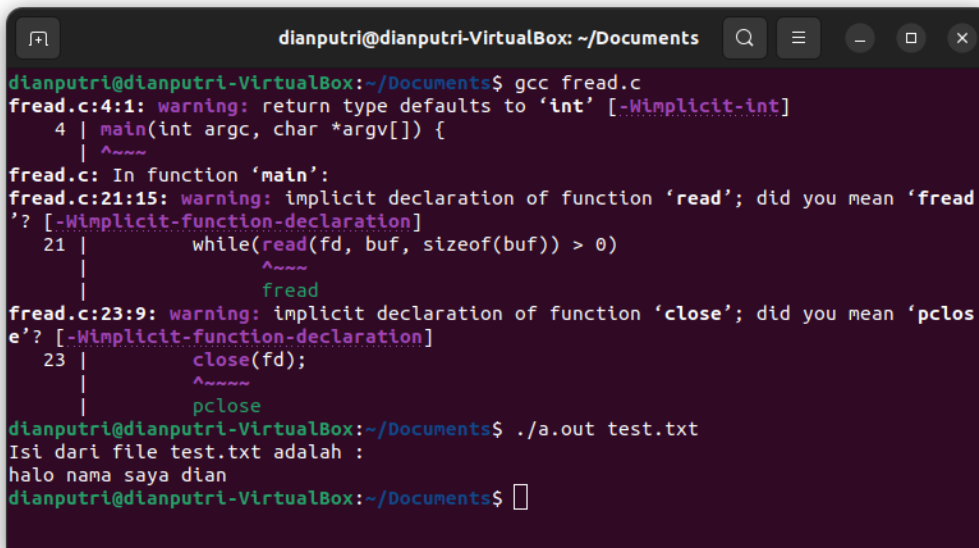
Praktikum 2

Membaca sebuah file dan menampilkan isinya di layar.



```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <fcntl.h>
4 main(int argc, char *argv[]) {
5     int fd, i;
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    close(fd);
24 }
```

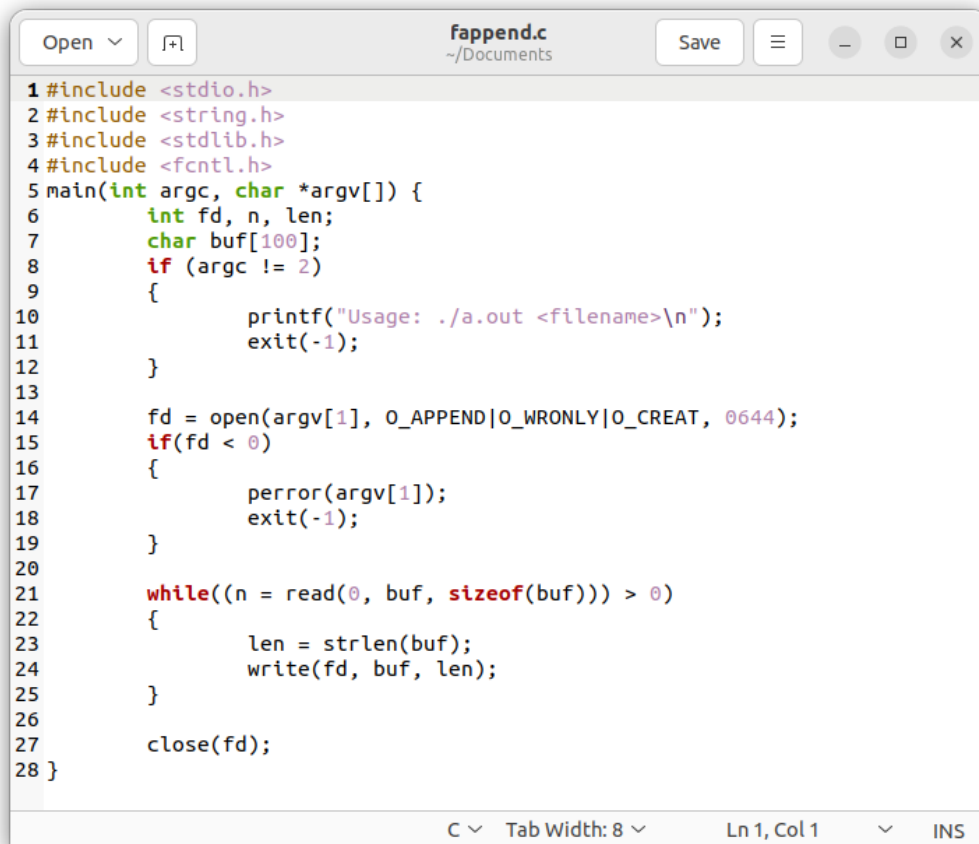
C ▾ Tab Width: 8 ▾ Ln 13, Col 29 ▾ INS



```
dianputri@dianputri-VirtualBox: ~/Documents
dianputri@dianputri-VirtualBox:~/Documents$ gcc 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:23:9: warning: implicit declaration of function 'close'; did you mean 'pclose'
'? [-Wimplicit-function-declaration]
23 |     close(fd);
    |     ^~~~~
    |     pclose
dianputri@dianputri-VirtualBox:~/Documents$ ./a.out test.txt
Isi dari file test.txt adalah :
halo nama saya dian
dianputri@dianputri-VirtualBox:~/Documents$
```

Praktikum 3

Menambah isi file.



```
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");
11         exit(-1);
12     }
13
14     fd = open(argv[1], O_APPEND|O_WRONLY|O_CREAT, 0644);
15     if (fd < 0)
16     {
17         perror(argv[1]);
18         exit(-1);
19     }
20
21     while((n = read(0, buf, sizeof(buf))) > 0)
22     {
23         len = strlen(buf);
24         write(fd, buf, len);
25     }
26
27     close(fd);
28 }
```

The screenshot shows a code editor window titled "fappend.c" with the file path "~/Documents". The editor contains a C program that appends data from standard input to a file specified by the first command-line argument. The program includes headers for stdio, string, stdlib, and fcntl. It defines a main function that checks for the correct number of arguments, opens the file in append mode, and then reads data from stdin and writes it to the file until EOF. The status bar at the bottom indicates "C", "Tab Width: 8", "Ln 1, Col 1", and "INS".

```
dianputri@dianputri-VirtualBox: ~/Documents
dianputri@dianputri-VirtualBox:~/Documents$ gcc 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:21:20: warning: implicit declaration of function 'read'; did you mean 'fre
ad'? [-Wimplicit-function-declaration]
   21 |         while((n = read(0, buf, sizeof(buf))) > 0)
      |                   ^~~~~
      |                   fread
fappend.c:24:17: warning: implicit declaration of function 'write'; did you mean 'fw
rite'? [-Wimplicit-function-declaration]
   24 |             write(fd, buf, len);
      |             ^~~~~
      |             fwrite
fappend.c:27:9: warning: implicit declaration of function 'close'; did you mean 'pcl
ose'? [-Wimplicit-function-declaration]
   27 |         close(fd);
      |         ^~~~~
      |         pclose
dianputri@dianputri-VirtualBox:~/Documents$ ./a.out test.txt
nim saya adalah l200210238
alamat saya di solo
dianputri@dianputri-VirtualBox:~/Documents$ gcc 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
fread.c:23:9: warning: implicit declaration of function 'close'; did you mean 'pclos
e'? [-Wimplicit-function-declaration]
   23 |         close(fd);
      |         ^~~~~
      |         pclose
dianputri@dianputri-VirtualBox:~/Documents$ ./a.out test.txt
Isi dari file test.txt adalah :
halo nama saya dian
nim saya adalah l200210238
alamat saya di solo
210238
dianputri@dianputri-VirtualBox:~/Documents$
```