LAPORAN PRAKTIKUM

MATA KULIAH PRAKTIKUM SISTEM OPERASI

MODUL 10 SIMULASI COMMAND (PERINTAH)

Disusun Oleh :

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Laporan Praktikum Modul 10

NIM : L200210249 Nama : Afifah Nur Nabila Dosen Pengampu : Heru Setiya Nugraha, S.T, M.Kom Tanggal Praktikum : 20 Desember 2022	Nilai praktek : Tanda tangan :

LANGKAH KERJA

1. Program untuk mensimulasi perintah 'ls'
   ⇨ Berikut adalah *screenshot* dari list.c

   ⇨ Berikut adalah *screenshot* dari terminal

2. Program untuk mensinulasi perintah 'grep'
   ⇨ Berikut adalah *screenshot* dari mygrep.c

list.c   ✕   **mygrep.c**   ✕

```c
1 #include <stdio.h>
2 #include <string.h>
3 #include <stdlib.h>
4 main(int argc,char *argv[]) {
5         FILE *fd;
6         char str[100];
7         char c;
8         int i, flag, j, m, k;
9         char temp[30];
10
11        if(argc != 3)
12        {
13                printf("Usage: gcc mygrep.c -o mygrep\n");
14                printf("Usage: ./mygrep <search_text> <filename>\n");
15                exit(-1);
16        }
17
18        fd = fopen(argv[2], "r");
19        if(fd == NULL)
20        {
21                printf("%s is not exist\n", argv[2]);
22                exit(-1);
23        }
24
25        while(!feof(fd))
26        {
27                i = 0;
28                while(1)
29                {
30                        c = fgetc(fd);
31                        if(feof(fd))
32                        {
33                                str[i++] = '\0'; break;
34                        }
35                        if(c == '\n')
36                        {
37                                str[i++] = '\0'; break;
38                        }
39                        str[i++] = c;
40                }
41
42                if(strlen(str) >= strlen(argv[1]))
43                for(k=0; k<=strlen(str)-strlen(argv[1]); k++)
44                {
45                        for(m=0; m<strlen(argv[1]); m++)
46                                temp[m] = str[k+m];
47                        temp[m] = '\0';
48                        if(strcmp(temp,argv[1]) == 0)
49                        {
50                                printf("%s\n", str);
51                                break;
52                        }
53                }
54        }
55 }
```

⇨ Berikut adalah *screenshot* dari terminal

```
afifah@afifah-VirtualBox:~$ gcc mygrep.c -o mygrep
mygrep.c:4:1: warning: return type defaults to 'int' [-Wimplicit-int]
    4 | main(int argc,char *argv[]) {
      | ^~~~
afifah@afifah-VirtualBox:~$ ./mygrep
Usage: gcc mygrep.c -o mygrep
Usage: ./mygrep <search_text> <filename>
afifah@afifah-VirtualBox:~$ ./mygrep Afifah test.txt
Saya Afifah Nur Nabila L200210249
Menambah baris, haiiii Afifah
afifah@afifah-VirtualBox:~$
```

3. Program untuk mensimulasi perintah 'cp'
    ⇨ Berikut adalah *screenshot* dari copy.c

```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]);
                exit(-1);
        }
        while ((nread = read(src, buf, SIZE)) > 0)
        {
                if (write(dst, buf, nread) == -1)
                {
                        printf("can't write\n");
                        exit(-1);
                }
        }
        close(src);
        close(dst);
}
```

⇨ Berikut adalah *screenshot* dari terminal

```
afifah@afifah-VirtualBox:~$ gcc copy.c -o copy
copy.c:6:1: warning: return type defaults to 'int' [-Wimplicit-int]
    6 | main(int argc, char *argv[]) {
      | ^~~~
copy.c: In function 'main':
copy.c:25:25: warning: implicit declaration of function 'read'; did you mean 'f
read'? [-Wimplicit-function-declaration]
   25 |             while ((nread = read(src, buf, SIZE)) > 0)
      |                             ^~~~
      |                             fread
copy.c:27:21: warning: implicit declaration of function 'write'; did you mean '
fwrite'? [-Wimplicit-function-declaration]
   27 |                     if (write(dst, buf, nread) == -1)
      |                         ^~~~~
      |                         fwrite
copy.c:33:9: warning: implicit declaration of function 'close'; did you mean 'p
close'? [-Wimplicit-function-declaration]
   33 |         close(src);
      |         ^~~~~
      |         pclose
afifah@afifah-VirtualBox:~$ ./copy
Usage: gcc copy.c -o copy
Usage: ./copy <filename> <newfile>
afifah@afifah-VirtualBox:~$ ./copy test.txt test2.txt
afifah@afifah-VirtualBox:~$ cat test2.txt
Saya Afifah Nur Nabila L200210249
Menambah baris, haiiii Afifah
afifah@afifah-VirtualBox:~$
```

4. Program untuk mensimulasi perintah 'rm'
   ⇨ Berikut adalah *screenshot* dari del.c

```
list.c    ×        mygrep.c   ×        copy.c    ×        del.c    ×

 1 #include <stdio.h>
 2 #include <stdlib.h>
 3 #include <fcntl.h>
 4 main(int argc, char *argv[]) {
 5         int fd;
 6         if (argc != 2)
 7         {
 8                 printf("Usage: gcc del.c -o del\n");
 9                 printf("Usage: ./del <filename>\n");
10                 exit(-1);
11         }
12         fd = open(argv[1], O_RDONLY);
13         if (fd != -1)
14         {
15                 close(fd);
16                 unlink(argv[1]);
17         } else
18                 perror(argv[1]);
19
```

⇨ Berikut adalah *screenshot* dari terminal

```
afifah@afifah-VirtualBox:~$ gcc del.c -o del
del.c:4:1: warning: return type defaults to 'int' [-Wimplicit-int]
    4 | main(int argc, char *argv[]) {
      | ^~~~
del.c: In function 'main':
del.c:15:17: warning: implicit declaration of function 'close'; did you mean 'p
close'? [-Wimplicit-function-declaration]
   15 |                 close(fd);
      |                 ^~~~~
      |                 pclose
del.c:16:17: warning: implicit declaration of function 'unlink' [-Wimplicit-fun
ction-declaration]
   16 |                 unlink(argv[1]);
      |                 ^~~~~~
afifah@afifah-VirtualBox:~$ ./del
Usage: gcc del.c -o del
Usage: ./del <filename>
afifah@afifah-VirtualBox:~$ ./del test2.txt
afifah@afifah-VirtualBox:~$ ls
a.out    del.c      Downloads  fcreate    fread.c  mygrep     snap       Videos
copy     Desktop    exec.c     fcreate.c  list     mygrep.c   stat.c     wait.c
copy.c   dirlist.c  fappend    fork.c     list.c   Pictures   Templates
del      Documents  fappend.c  fread      Music    Public     test.txt
afifah@afifah-VirtualBox:~$
```