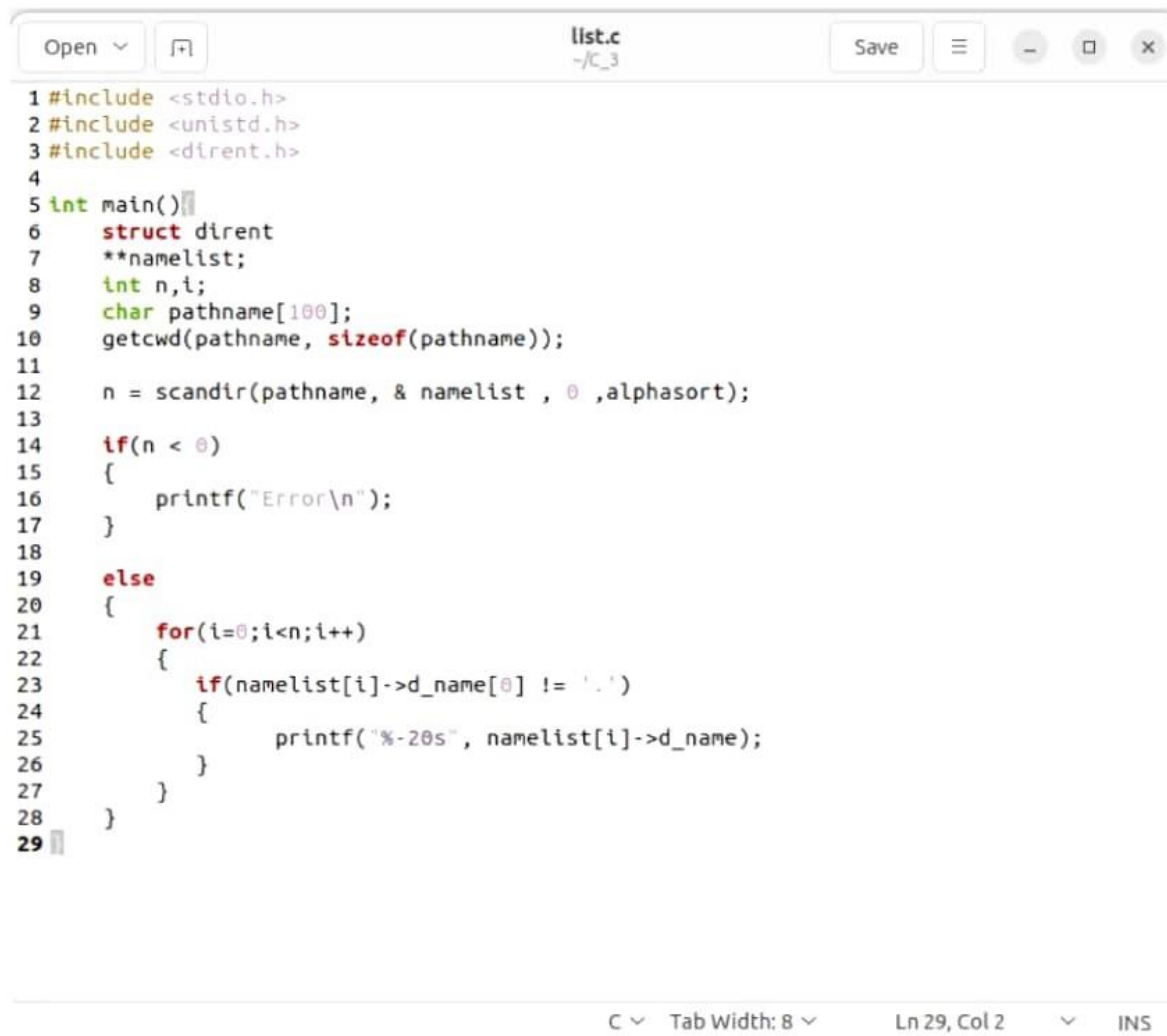


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Laporan Praktikum :

1. **Berikut adalah kegiatan 1 yaitu program untuk mensimulasi perintah 'ls'**
 - a. Screenshot kode program list.c



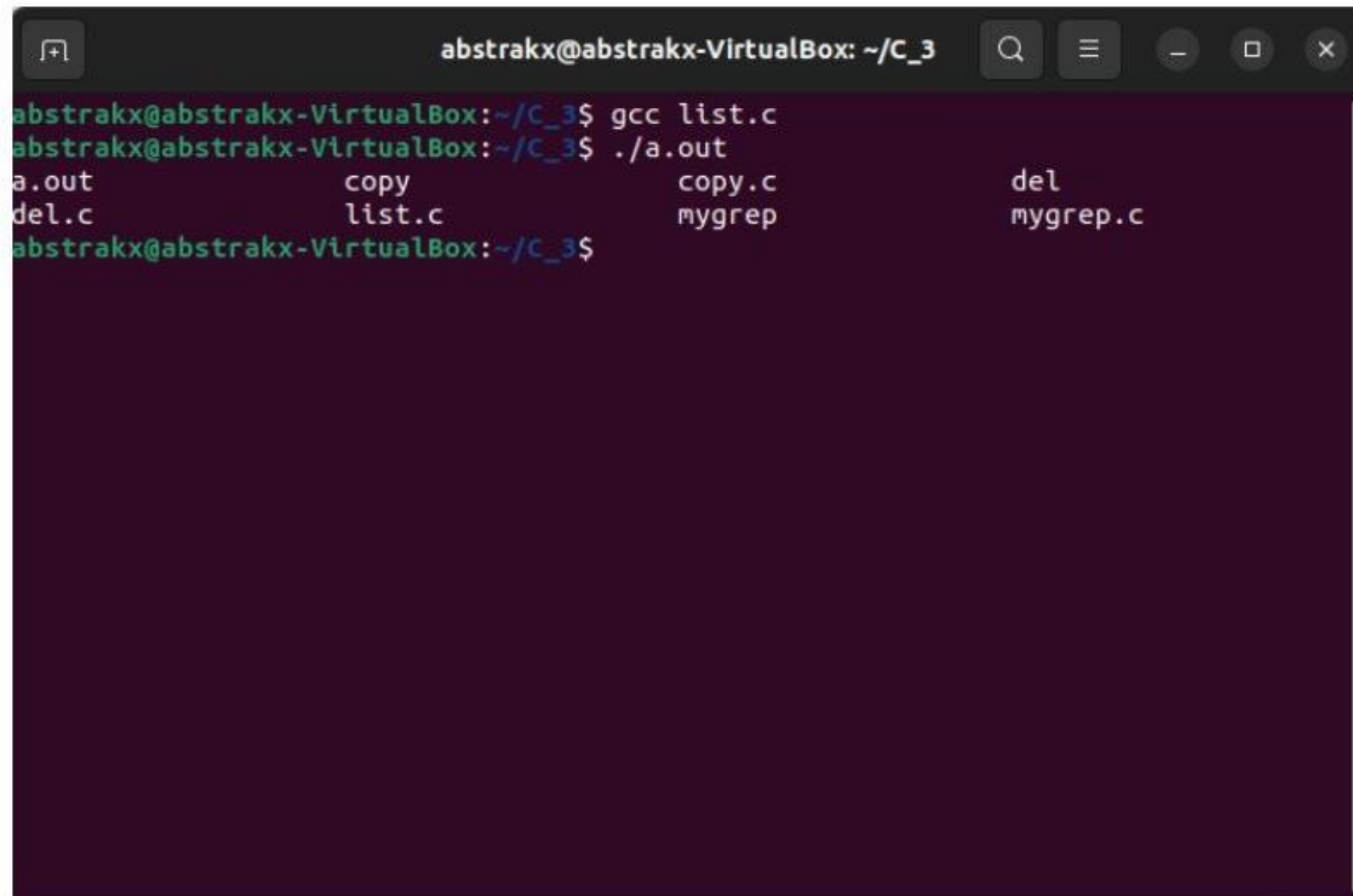
```
1 #include <stdio.h>
2 #include <unistd.h>
3 #include <dirent.h>
4
5 int main()
6 {
7     struct dirent
8     **namelist;
9     int n,i;
10    char pathname[100];
11    getcwd(pathname, sizeof(pathname));
12
13    n = scandir(pathname, & namelist , 0 ,alphasort);
14
15    if(n < 0)
16    {
17        printf("Error\n");
18    }
19
20    else
21    {
22        for(i=0;i<n;i++)
23        {
24            if(namelist[i]->d_name[0] != '.')
25            {
26                printf("%-20s", namelist[i]->d_name);
27            }
28        }
29    }
```

C Tab Width: 8 Ln 29, Col 2 INS

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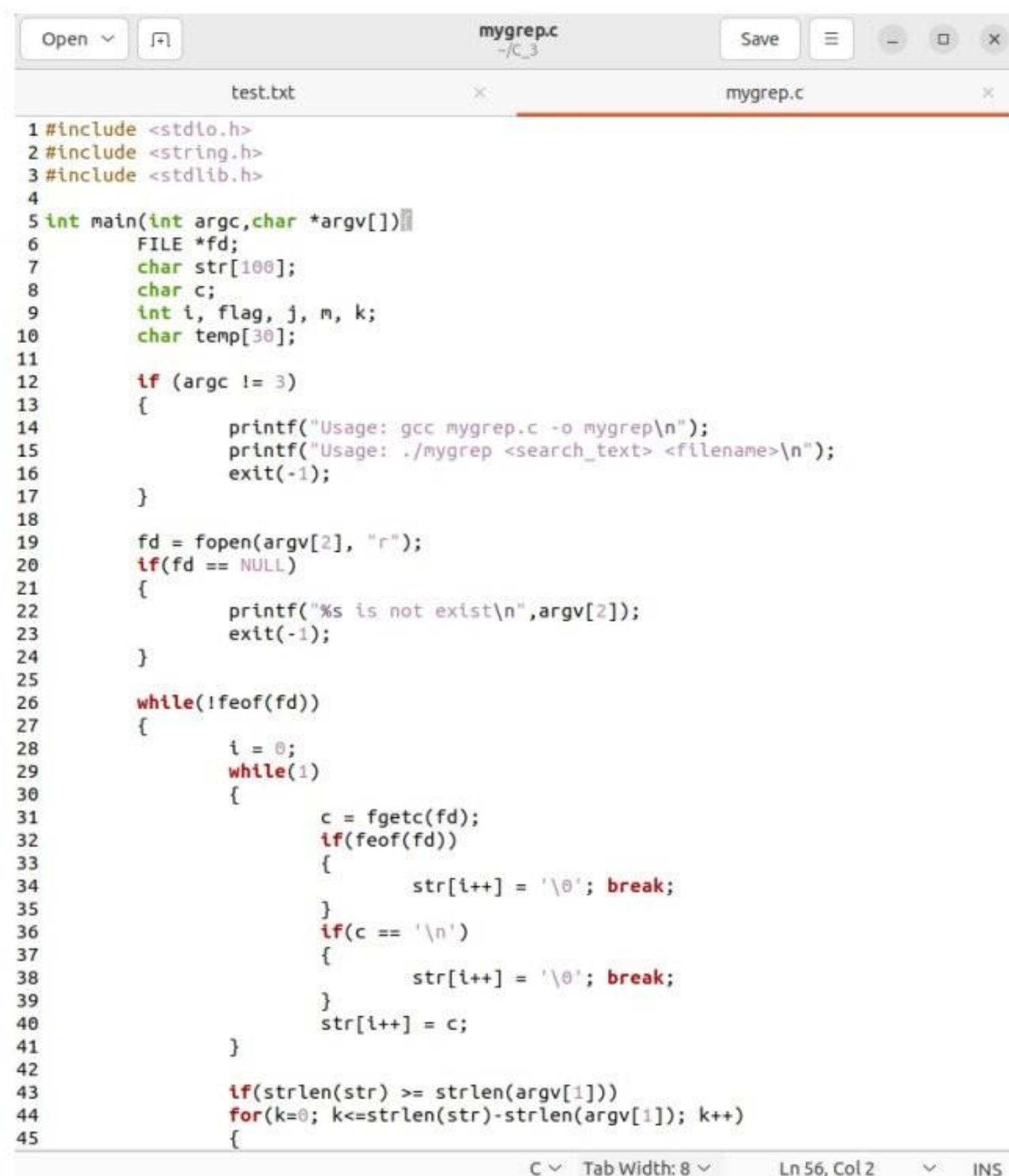
b. Screenshot hasil program ketika dijalankan oleh gcc



```
abstrakx@abstrakx-VirtualBox: ~/C_3
abstrakx@abstrakx-VirtualBox:~/C_3$ gcc list.c
abstrakx@abstrakx-VirtualBox:~/C_3$ ./a.out
a.out          copy          copy.c          del
del.c          list.c          mygrep          mygrep.c
abstrakx@abstrakx-VirtualBox:~/C_3$
```

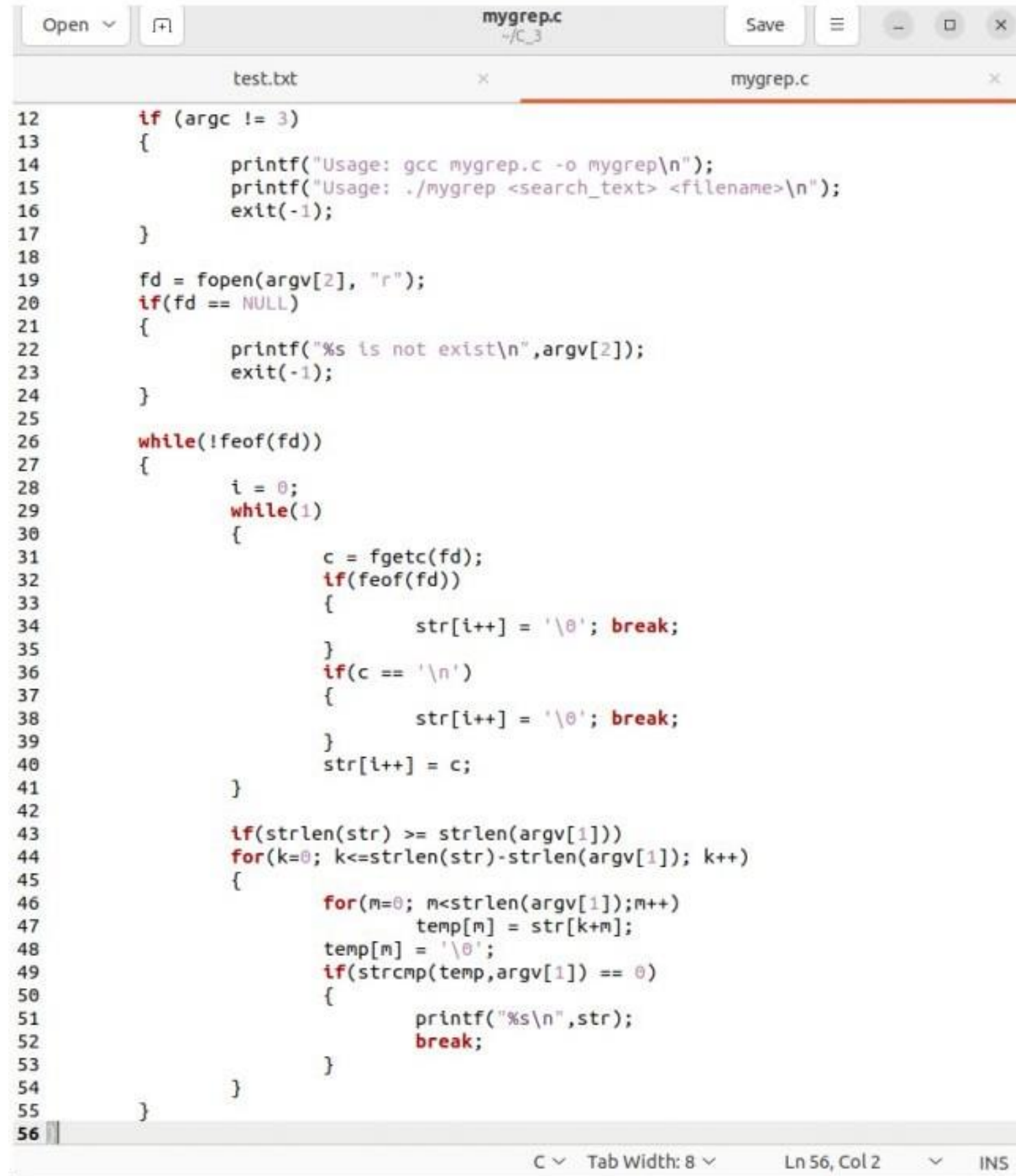
2. Berikut adalah kegiatan 2 yaitu program untuk mensimulasi perintah 'grep'.

a. Screenshot kode program mygrep.c



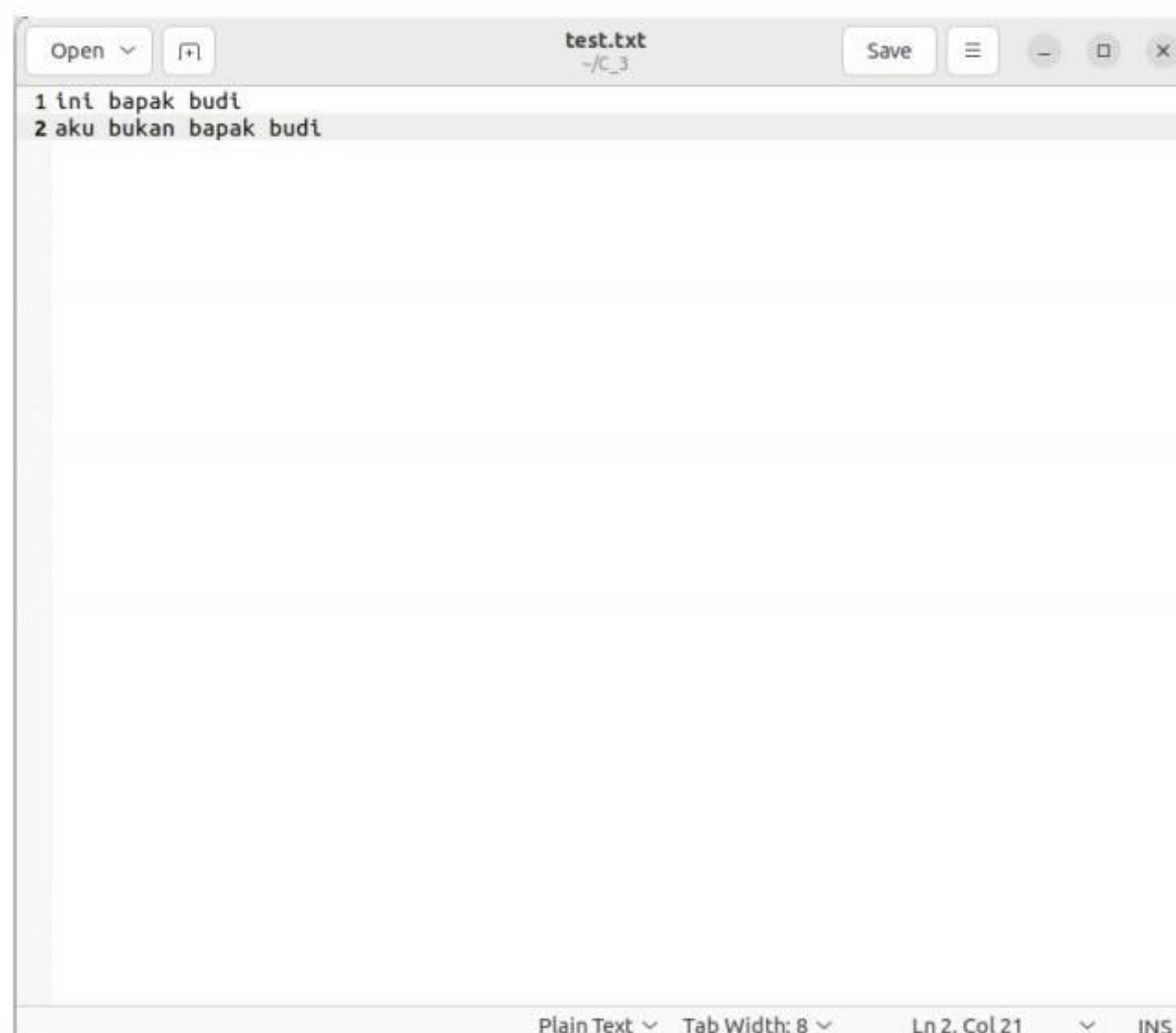
```
1 #include <stdio.h>
2 #include <string.h>
3 #include <stdlib.h>
4
5 int main(int argc, char *argv[])
6 {
7     FILE *fd;
8     char str[100];
9     char c;
10    int i, flag, j, m, k;
11    char temp[30];
12
13    if (argc != 3)
14    {
15        printf("Usage: gcc mygrep.c -o mygrep\n");
16   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

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```
12     if (argc != 3)
13     {
14         printf("Usage: gcc mygrep.c -o mygrep\n");
15         printf("Usage: ./mygrep <search_text> <filename>\n");
16         exit(-1);
17     }
18
19     fd = fopen(argv[2], "r");
20     if(fd == NULL)
21     {
22         printf("%s is not exist\n",argv[2]);
23         exit(-1);
24     }
25
26     while(!feof(fd))
27     {
28         i = 0;
29         while(1)
30         {
31             c = fgetc(fd);
32             if(feof(fd))
33             {
34                 str[i++] = '\0'; break;
35             }
36             if(c == '\n')
37             {
38                 str[i++] = '\0'; break;
39             }
40             str[i++] = c;
41         }
42
43         if(strlen(str) >= strlen(argv[1]))
44         for(k=0; k<=strlen(str)-strlen(argv[1]); k++)
45         {
46             for(m=0; m<strlen(argv[1]);m++)
47                 temp[m] = str[k+m];
48             temp[m] = '\0';
49             if(strcmp(temp,argv[1]) == 0)
50             {
51                 printf("%s\n",str);
52                 break;
53             }
54         }
55     }
56
```

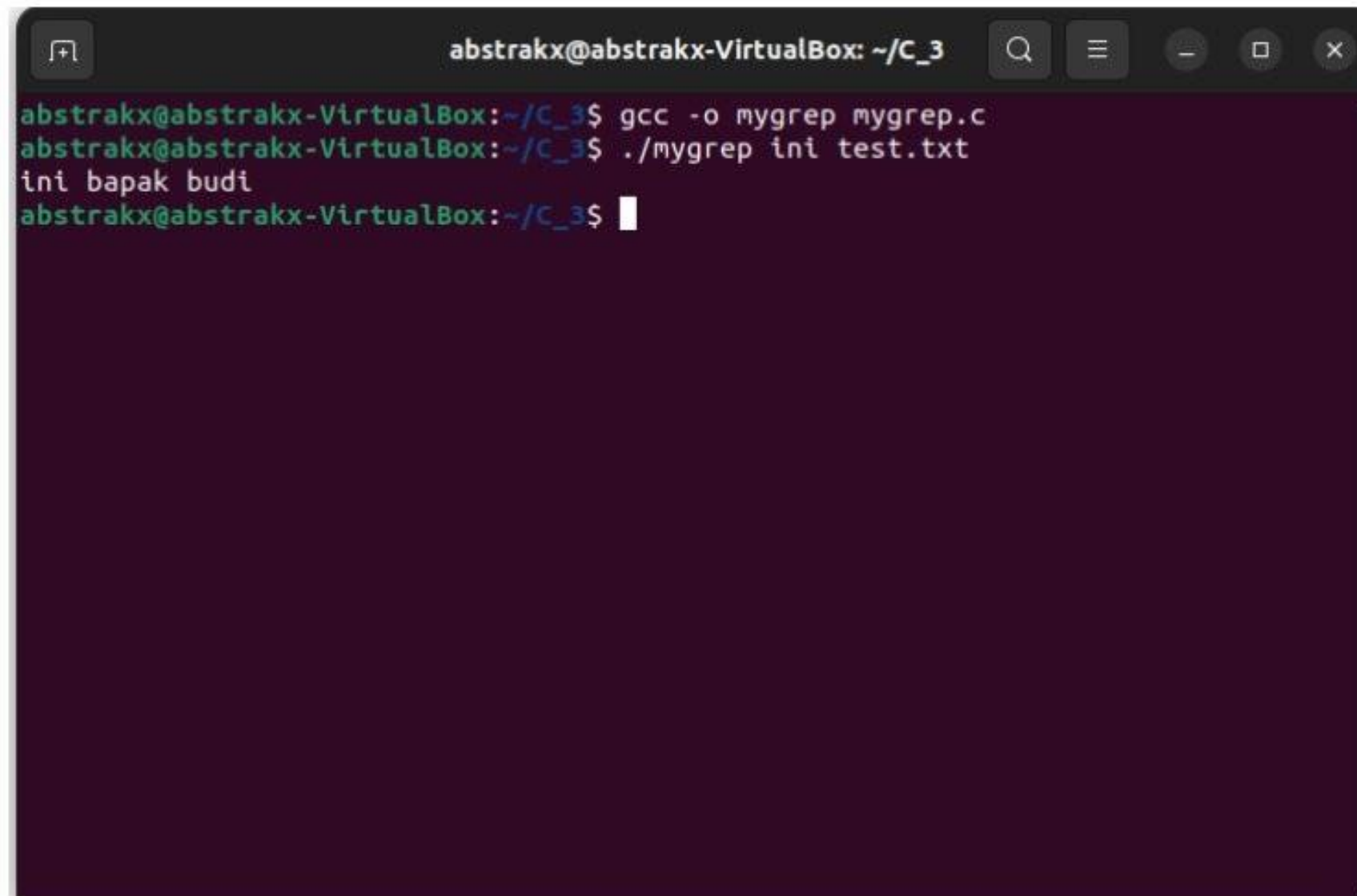
b. Screenshot dari isi teks test.txt



```
1 ini bapak budi
2 aku bukan bapak budi
```

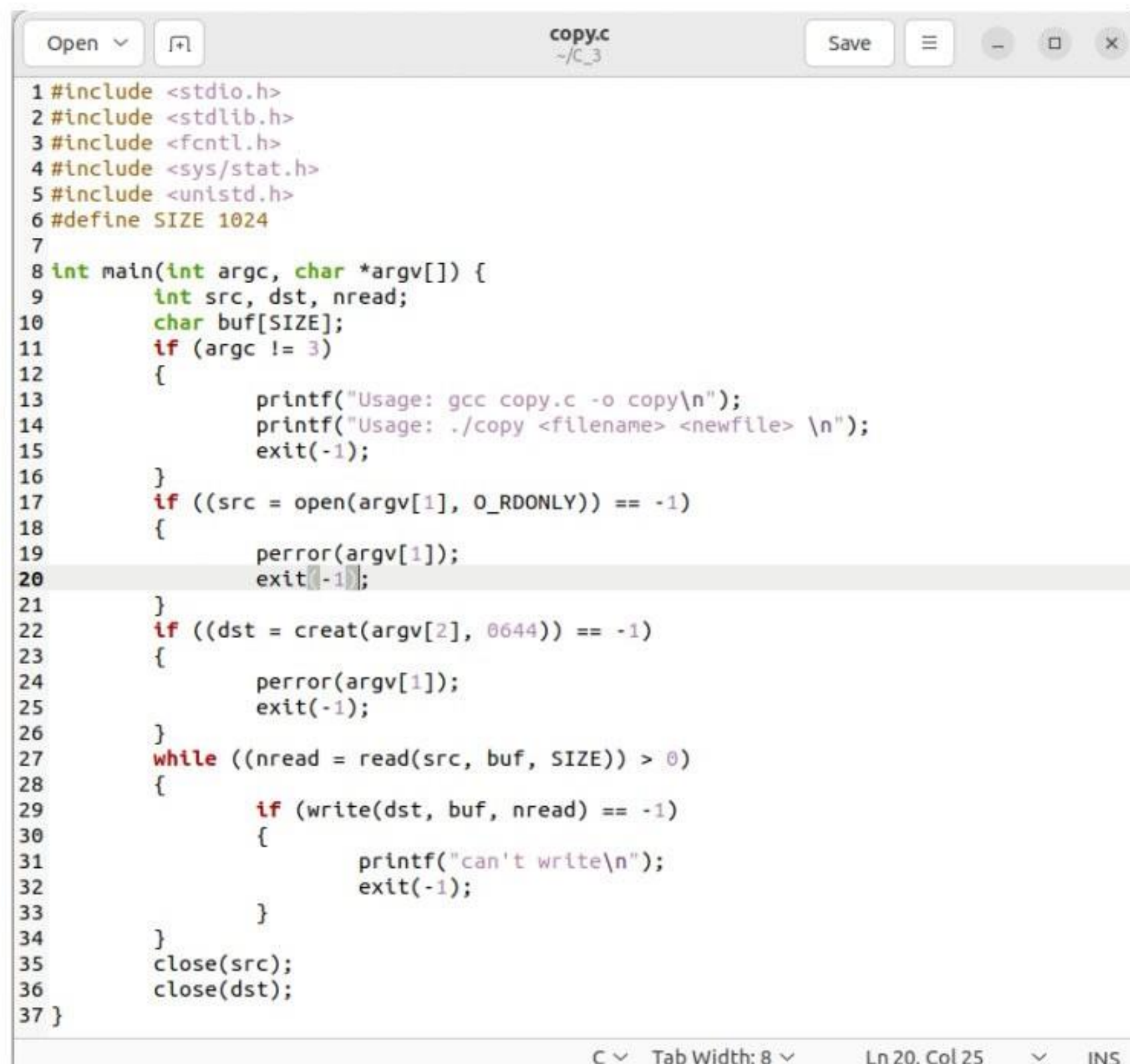

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c. Screenshot hasil program ketika dijalankan



```
abstrakx@abstrakx-VirtualBox: ~/C_3
abstrakx@abstrakx-VirtualBox:~/C_3$ gcc -o mygrep mygrep.c
abstrakx@abstrakx-VirtualBox:~/C_3$ ./mygrep ini test.txt
ini bapak budi
abstrakx@abstrakx-VirtualBox:~/C_3$
```

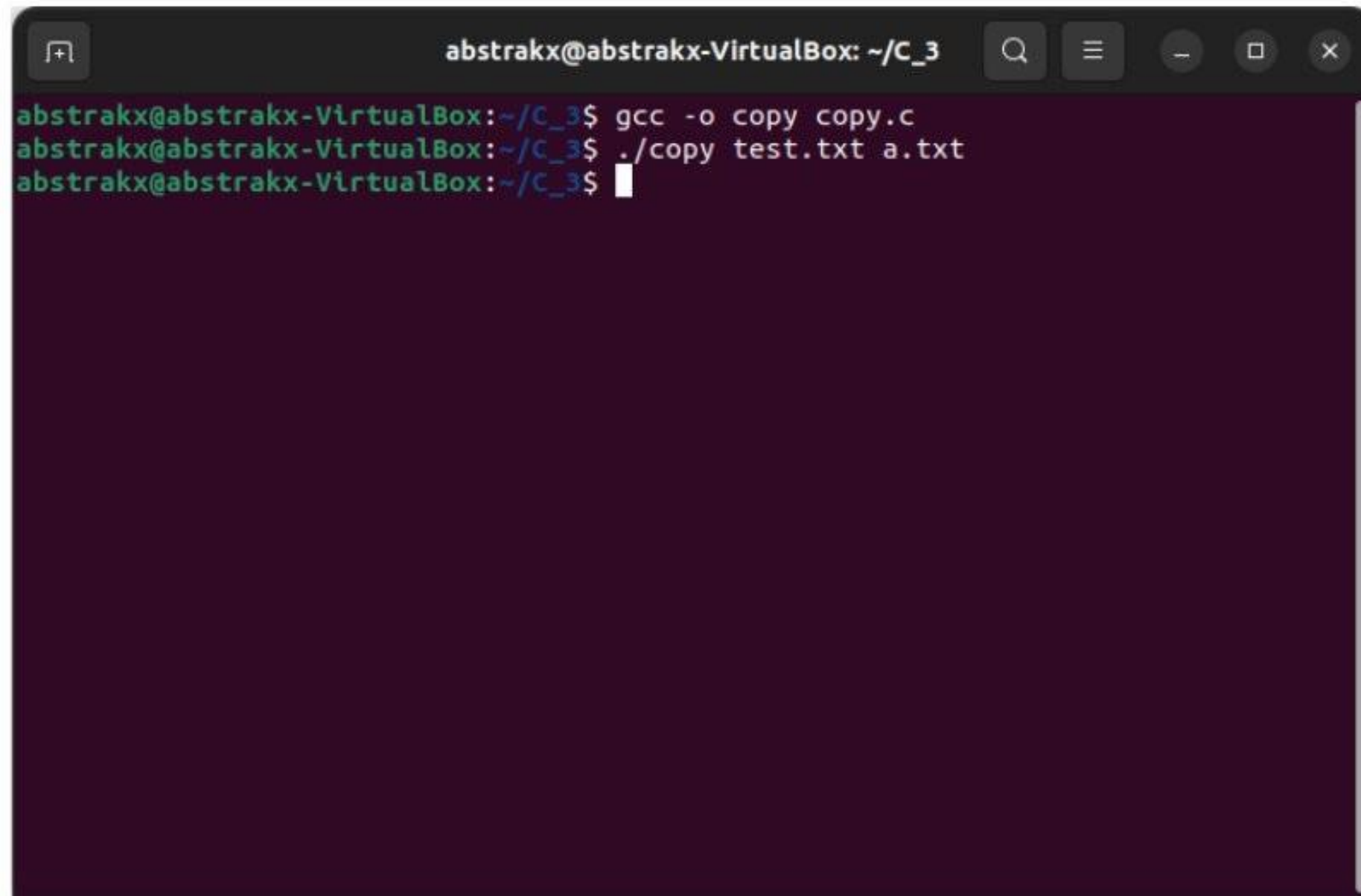
3. Berikut adalah kegiatan 3 yaitu program untuk mensimulasi perintah 'cp'.
- a. Screenshot program copy.c



```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <fcntl.h>
4 #include <sys/stat.h>
5 #include <unistd.h>
6 #define SIZE 1024
7
8 int main(int argc, char *argv[]) {
9     int src, dst, nread;
10    char buf[SIZE];
11    if (argc != 3)
12    {
13        printf("Usage: gcc copy.c -o copy\n");
14        printf("Usage: ./copy <filename> <newfile> \n");
15        exit(-1);
16    }
17    if ((src = open(argv[1], O_RDONLY)) == -1)
18    {
19        perror(argv[1]);
20        exit(-1);
21    }
22    if ((dst = creat(argv[2], 0644)) == -1)
23    {
24        perror(argv[1]);
25        exit(-1);
26    }
27    while ((nread = read(src, buf, SIZE)) > 0)
28    {
29        if (write(dst, buf, nread) == -1)
30        {
31            printf("can't write\n");
32            exit(-1);
33        }
34    }
35    close(src);
36    close(dst);
37 }
```

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b. Screenshot hasil program ketika dijalankan



```
abstrakx@abstrakx-VirtualBox: ~/C_3
abstrakx@abstrakx-VirtualBox:~/C_3$ gcc -o copy copy.c
abstrakx@abstrakx-VirtualBox:~/C_3$ ./copy test.txt a.txt
abstrakx@abstrakx-VirtualBox:~/C_3$
```

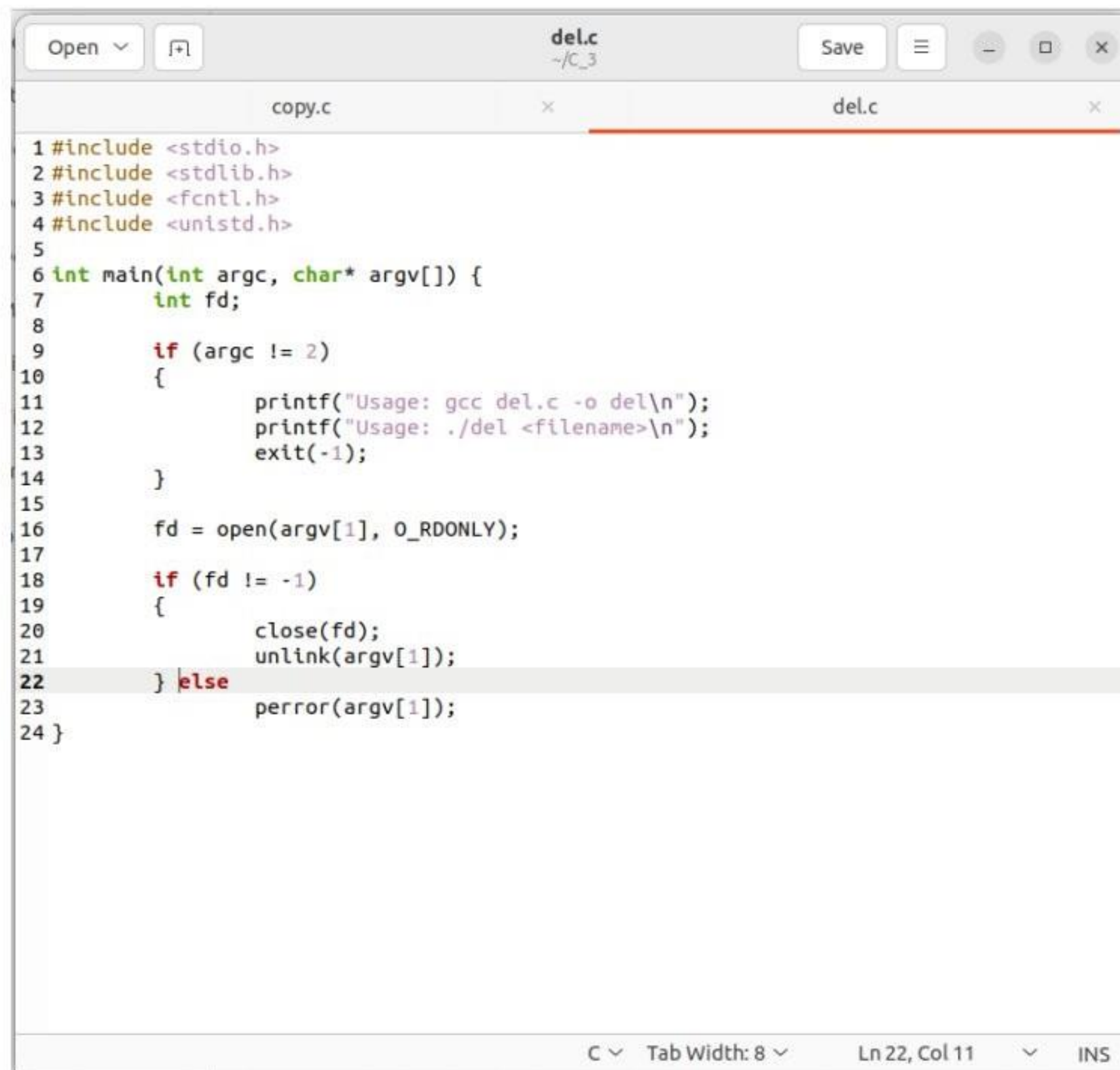
c. Hasil copy di direktori



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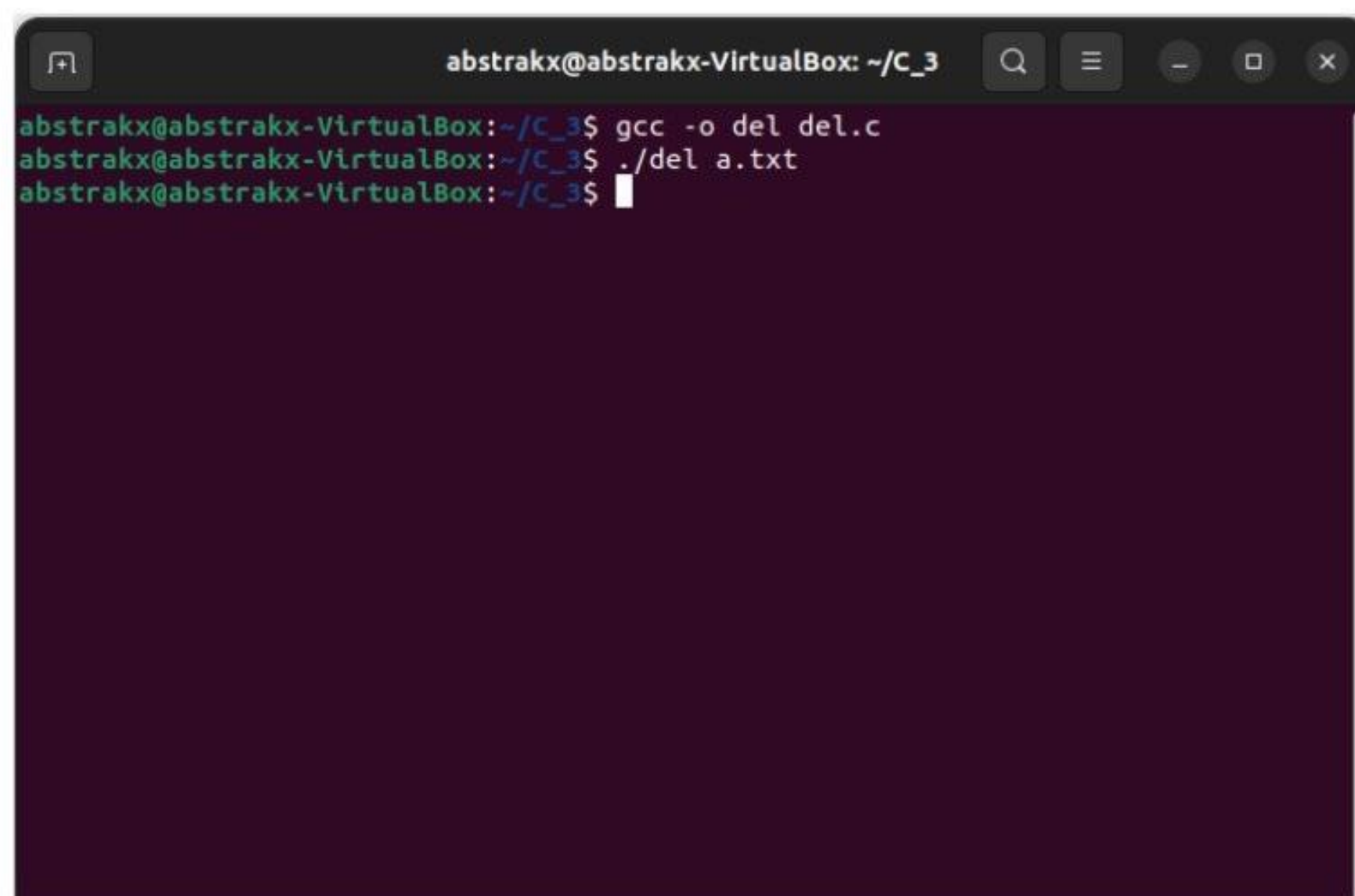
4. Berikut adalah kegiatan 3 yaitu program untuk mensimulasi perintah 'rm'.

a. Screenshot kode program del.c



```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <fcntl.h>
4 #include <unistd.h>
5
6 int main(int argc, char* argv[]) {
7     int fd;
8
9     if (argc != 2)
10    {
11        printf("Usage: gcc del.c -o del\n");
12        printf("Usage: ./del <filename>\n");
13        exit(-1);
14    }
15
16    fd = open(argv[1], O_RDONLY);
17
18    if (fd != -1)
19    {
20        close(fd);
21        unlink(argv[1]);
22    } else
23        perror(argv[1]);
24 }
```

b. Screenshot hasil program ketika dijalankan



```
abstrakx@abstrakx-VirtualBox: ~/C_3
abstrakx@abstrakx-VirtualBox:~/C_3$ gcc -o del del.c
abstrakx@abstrakx-VirtualBox:~/C_3$ ./del a.txt
abstrakx@abstrakx-VirtualBox:~/C_3$
```