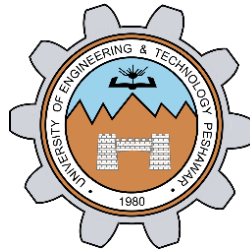


SP LAB 5



Submitted by: **ALI**

ASGHAR

Registration No:

21PWCSE2059

Section: **C**

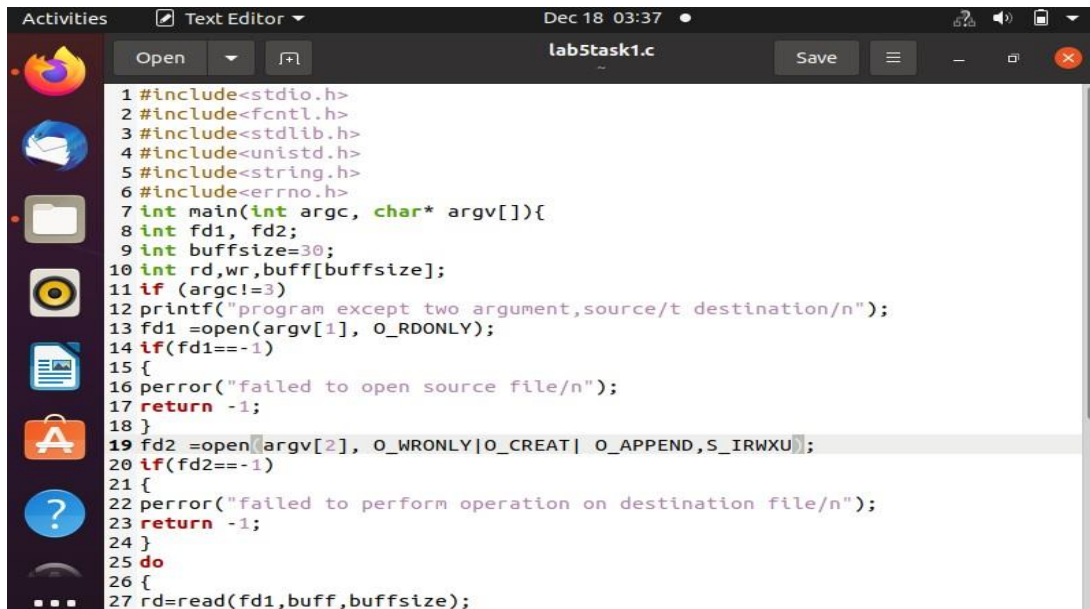
Submitted to:

Engr. Abdullah Hamid

“On my honor , as student of University of Engineering and Technology, I have neither given nor received unauthorized assistance on this academic work”

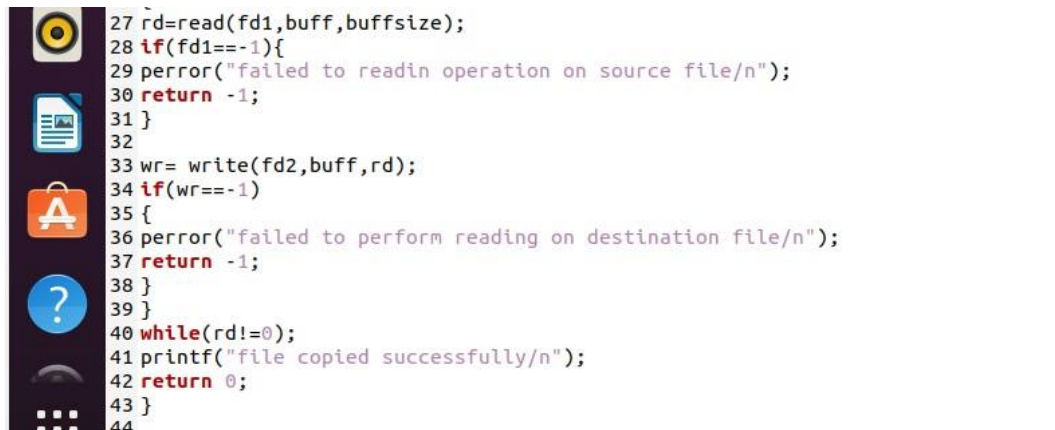
Department of Computer Systems Engineering
University of Engineering and Technology Peshawar

task1;



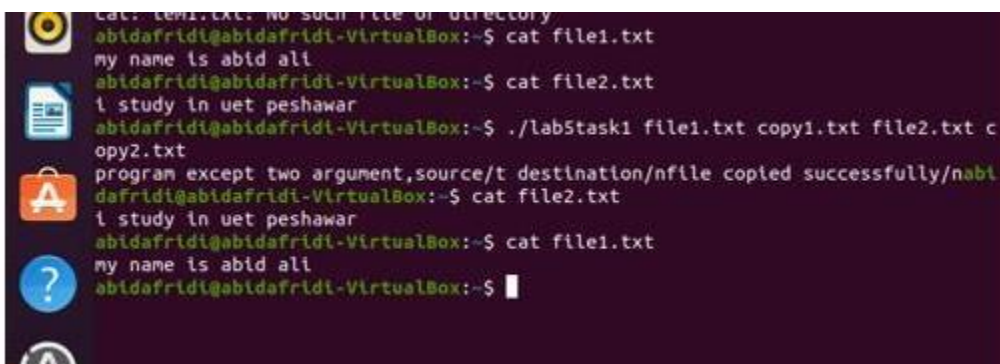
The screenshot shows a Linux desktop with a sidebar on the left containing icons for Firefox, a file manager, a terminal, and other applications. The main window is a text editor titled 'lab5task1.c' with a menu bar (Open, Save) and a status bar (Dec 18 03:37). The editor contains C code for a file copying program.

```
1 #include<stdio.h>
2 #include<fcntl.h>
3 #include<stdlib.h>
4 #include<unistd.h>
5 #include<string.h>
6 #include<errno.h>
7 int main(int argc, char* argv[]){
8     int fd1, fd2;
9     int buffsize=30;
10    int rd,wr,buff[buffsize];
11    if (argc!=3)
12        printf("program except two argument,source/t destination/n");
13    fd1 =open(argv[1], O_RDONLY);
14    if(fd1==-1)
15    {
16        perror("failed to open source file/n");
17        return -1;
18    }
19    fd2 =open(argv[2], O_WRONLY|O_CREAT| O_APPEND,S_IRWXU);
20    if(fd2==-1)
21    {
22        perror("failed to perform operation on destination file/n");
23        return -1;
24    }
25    do
26    {
27        rd=read(fd1,buff,buffsize);
```



This block continues the C code from the previous block, showing the reading and writing logic.

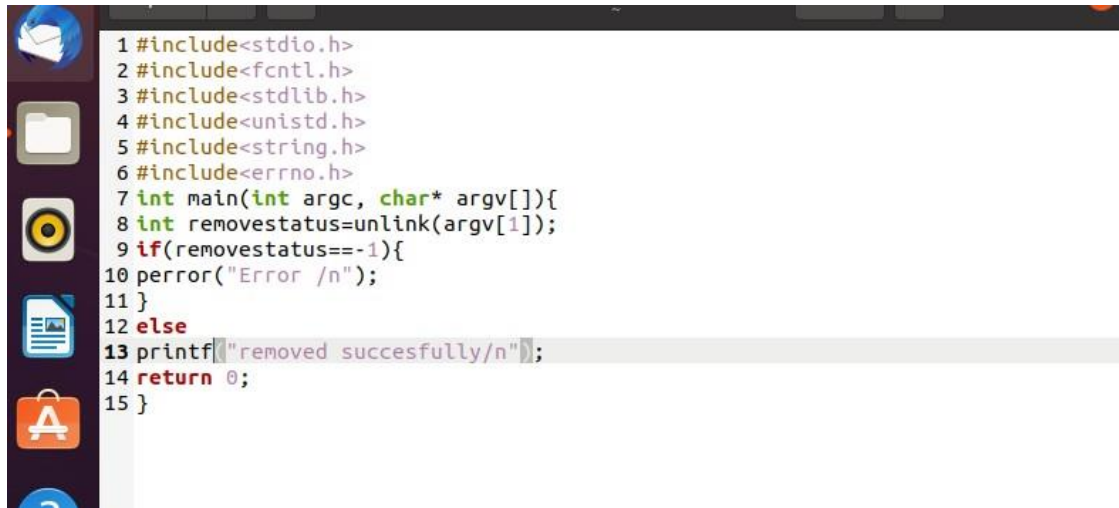
```
27        rd=read(fd1,buff,buffsize);
28        if(fd1==-1){
29            perror("failed to readin operation on source file/n");
30            return -1;
31        }
32
33        wr= write(fd2,buff,rd);
34        if(wr==-1)
35        {
36            perror("failed to perform reading on destination file/n");
37            return -1;
38        }
39    }
40    while(rd!=0);
41    printf("file copied successfully/n");
42    return 0;
43 }
44
```



The screenshot shows a terminal window with the following commands and output:

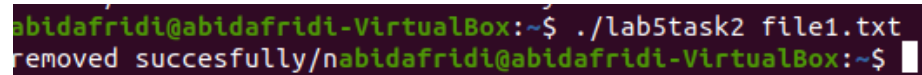
```
cat: file1.txt: No such file or directory
abidafridi@abidafridi-VirtualBox:~$ cat file1.txt
my name is abid ali
abidafridi@abidafridi-VirtualBox:~$ cat file2.txt
I study in uet peshawar
abidafridi@abidafridi-VirtualBox:~$ ./lab5task1 file1.txt copy1.txt file2.txt c
opy2.txt
program except two argument,source/t destination/nfile copied successfully/nab
idafridi@abidafridi-VirtualBox:~$ cat file2.txt
I study in uet peshawar
abidafridi@abidafridi-VirtualBox:~$ cat file1.txt
my name is abid ali
abidafridi@abidafridi-VirtualBox:~$
```

Task2;

A screenshot of a code editor window with a dark theme. On the left is a vertical sidebar with icons for a mail client, file manager, terminal, and application store. The main area displays a C program. The code includes standard headers for file operations and error handling. The main function takes an argument and attempts to unlink the file. If the operation fails, it prints an error message; otherwise, it prints a success message and returns 0.

```
1 #include<stdio.h>
2 #include<fcntl.h>
3 #include<stdlib.h>
4 #include<unistd.h>
5 #include<string.h>
6 #include<errno.h>
7 int main(int argc, char* argv[]){
8     int removestatus=unlink(argv[1]);
9     if(removestatus==-1){
10 perror("Error /n");
11 }
12 else
13 printf("removed succesfully/n");
14 return 0;
15 }
```

Out put:

A screenshot of a terminal window with a dark background. It shows the command to run the program with a file name as an argument. The output of the program is displayed on the next line.

```
abidafridi@abidafridi-VirtualBox:~$ ./lab5task2 file1.txt
removed succesfully/nabidafridi@abidafridi-VirtualBox:~$
```

Task3;

```
1 #include<stdio.h>
2 #include<fcntl.h>
3 #include<stdlib.h>
4 #include<unistd.h>
5 #include<string.h>
6 #include<errno.h>
7 int main(int argc, char* argv[])
8 {
9     int fd1, fd2;
10    int buffsize=30;
11    int rd,wr,buff[buffsize];
12    if (argc!=3)
13    printf("program except two argument,source/t destination/n");
14    fd1 =open(argv[1], O_RDONLY);
15    if(fd1==-1)
16    {
17        perror("failed to open source file/n");
18        return -1;
19    }
20    fd2 =open(argv[2], O_WRONLY|O_CREAT| O_APPEND,S_IRWXU);
21    if(fd2==-1)
22    {
23        perror("failed to perform operation on destination file/n");
24        return -1;
25    }
26    do
27    {
28        rd=read(fd1,buff,buffsize);
29        if(rd==-1){
30            perror("failed to readin operation on source file/n");
31            return -1;
32        }
33        wr= write(fd2,buff,rd);
34        if(wr==-1)
35        {
36            perror("failed to perform reading on destination file/n");
37            return -1;
38        }
39    }
40    while(rd!=0);
41    int removestatus=unlink(argv[1]);
42    if(removestatus==-1){
43        perror("Error /n");
44    }
45    else
46    printf("file moved succrssfully");
47    return 0;
```

Out Put:

```
abidafridi@abidafridi-VirtualBox:~$ ./lab5task1
failed to open source file/n: Bad address
program except two argument,source/t destination/nabidafridi@abidafridi-Virtual
Box:~$ cat file1.txt
my name is abid ali
abidafridi@abidafridi-VirtualBox:~$ cat file2.txt
i study in uet peshawar
abidafridi@abidafridi-VirtualBox:~$ ./lab5task1 file1.txt copy1.txt file2.txt c
opy2.txt
program except two argument,source/t destination/nfile move successfully/nabida
fridi@abidafridi-VirtualBox:~$
```