

DEPARTMENT OF INFORMATION TECHNOLOGY

COMPUTER NETWORKING LAB

LAB 8: 03/01/2023

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File transfer client program:fileclient.cc

```
#include<stdio.h>
#include<unistd.h>
#include<string.h>
#include<sys/socket.h>
#include<netinet/in.h>
#include<sys/types.h>
#include<arpa/inet.h>
#define SERV_PORT 5576
int main()
{
    int i,j;
    ssize_t n;
    char filename[80],recvline[80];
    struct sockaddr_in servaddr;
    int sockfd;
    sockfd=socket(AF_INET,SOCK_STREAM,0);
    bzero(&servaddr,sizeof(servaddr));
    servaddr.sin_family=AF_INET;
    servaddr.sin_port=htons(SERV_PORT);
    servaddr.sin_addr.s_addr=inet_addr("127.0.0.1");
    connect(sockfd,(struct sockaddr*)&servaddr,sizeof(servaddr));

    printf("enter the file name");
    scanf("%s",filename);
    write(sockfd,filename,sizeof(filename));
    printf("\n data from server: \n");
    int temp ,sz;
    read(sockfd,&temp,sizeof(temp));
    sz = ntohl(temp);
    printf("%d\n",sz);
    // while(read(sockfd,recvline,80)!=0)
    // {
    // fputs(recvline,stdout);
    // }
    close(sockfd);
}
```

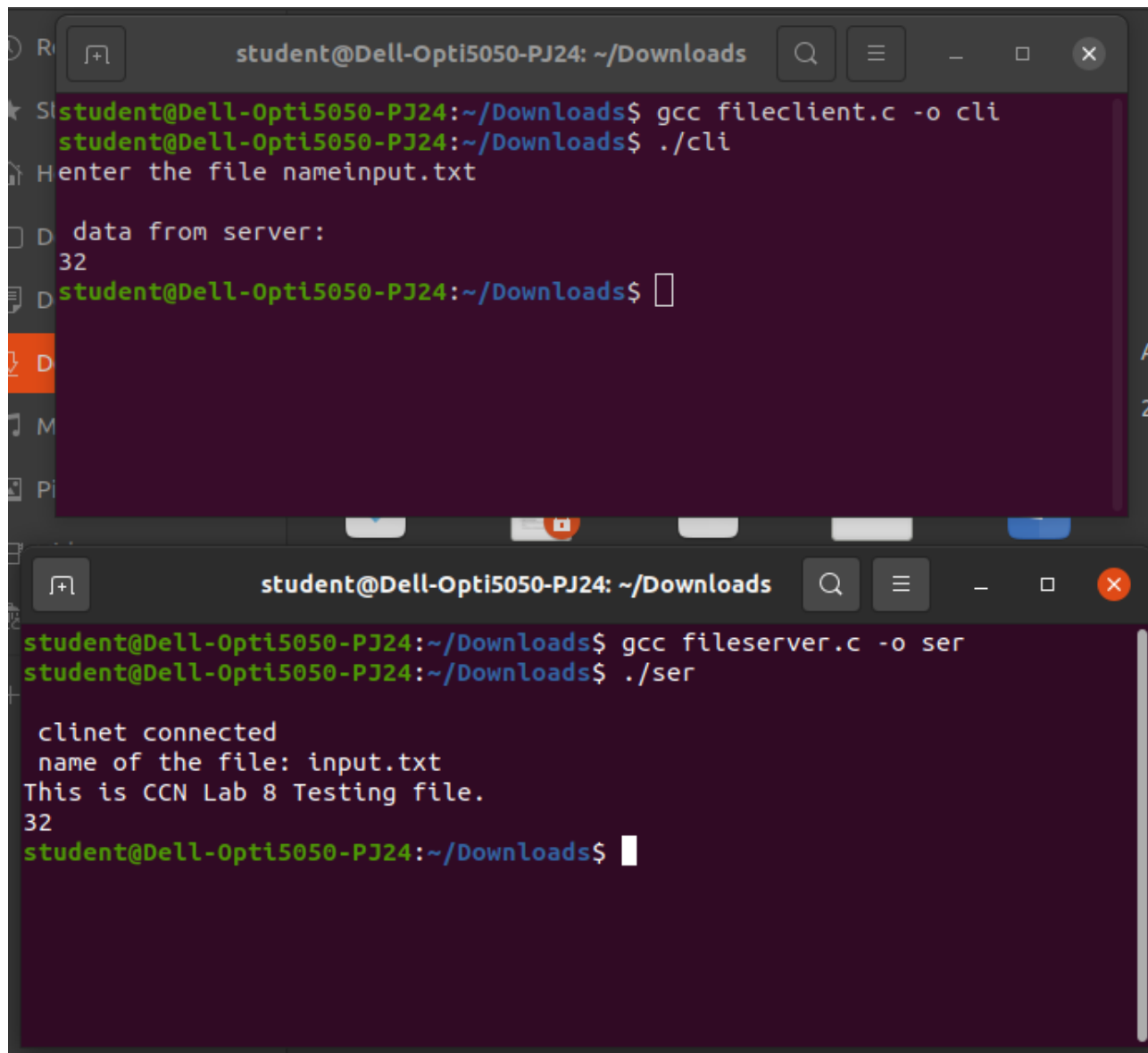
Server for file transfer:fileserver.cc

```
#include<stdio.h>
#include<unistd.h>
#include<string.h>
#include<sys/socket.h>
#include<netinet/in.h>
#include<sys/types.h>
#define SERV_PORT 5576
int main(int argc,char **argv)
{
    int i,j;
    ssize_t n;
    FILE *fp;
    char s[80],f[80];
    struct sockaddr_in servaddr,cliaddr;
    int listenfd,connfd,clilen;
    listenfd=socket(AF_INET,SOCK_STREAM,0);
    bzero(&servaddr,sizeof(servaddr));
    servaddr.sin_family=AF_INET;
    servaddr.sin_port=htons(SERV_PORT);
    bind(listenfd,(struct sockaddr *)&servaddr,sizeof(servaddr));
    listen(listenfd,1);
    clilen=sizeof(cliaddr);
    connfd=accept(listenfd,(struct sockaddr*)&cliaddr,&clilen);
    printf("\n client connected");
    read(connfd,f,80);
    fp=fopen(f,"r");
    printf("\n name of the file: %s \n",f);
    int k = 0;
    while(fgets(s,2,fp)!=NULL)
    {
        k++;
        printf("%s",s);
    }
    int sz = htonl(k);
    printf("%d\n",k);
    write(connfd,&sz,sizeof(sz));
    close(listenfd);
    fclose(fp);
    return 0;
}
```

INPUT TEXT FILE:-

This is CNN Lab 8 Testing file.

OUTPUT:-



The image displays two terminal windows from a Linux environment, showing the compilation and execution of a C program for a client-server application.

The top terminal window shows the compilation of `fileclient.c` into `cli` and its execution. The user enters `input.txt` as the file name, and the program outputs `data from server:` followed by `32`.

```
student@Dell-Opti5050-PJ24: ~/Downloads
student@Dell-Opti5050-PJ24:~/Downloads$ gcc fileclient.c -o cli
student@Dell-Opti5050-PJ24:~/Downloads$ ./cli
Enter the file nameinput.txt
data from server:
32
student@Dell-Opti5050-PJ24:~/Downloads$
```

The bottom terminal window shows the compilation of `fileserver.c` into `ser` and its execution. The program outputs `clinet connected`, `name of the file: input.txt`, and `This is CCN Lab 8 Testing file.` followed by `32`.

```
student@Dell-Opti5050-PJ24:~/Downloads$ gcc fileserver.c -o ser
student@Dell-Opti5050-PJ24:~/Downloads$ ./ser
clinet connected
name of the file: input.txt
This is CCN Lab 8 Testing file.
32
student@Dell-Opti5050-PJ24:~/Downloads$
```