

Exercise 9

Code:

Client :

```
#include <arpa/inet.h>
#include <netdb.h>
#include <netinet/in.h>
#include <stdio.h>
#include <string.h>
#include <sys/socket.h>
#include <sys/stat.h>
#include <sys/types.h>
#include <unistd.h>
int main(int argc, char *argv[])
{
    int sd;
    char buff[1024], file[10000];
    struct sockaddr_in cliaddr, servaddr;
    struct hostent *h;
    socklen_t servlen;
    servlen = sizeof(servaddr);
    h = gethostbyname(argv[1]);
    bzero(&servaddr, sizeof(servaddr));
    servaddr.sin_family = h->h_addrtype;
    memcpy((char *)&servaddr.sin_addr, h->h_addr_list[0], h->h_length);
    servaddr.sin_port = htons(1300);
    sd = socket(AF_INET, SOCK_DGRAM, 0);
    if (sd < 0)
    {
        printf("Socket CReation Error");
    }
    bind(sd, (struct sockaddr *)&servaddr, sizeof(servaddr));
    while (1)
    {
        printf("\nEnter the command to be executed");
        fgets(buff, 1024, stdin);
        sendto(sd, buff, strlen(buff) + 1, 0, (struct sockaddr *)&servaddr, sizeof(servaddr));

        printf("\nData Sent");
        recvfrom(sd, file, strlen(file) + 1, 0, (struct sockaddr *)&servaddr, &servlen);

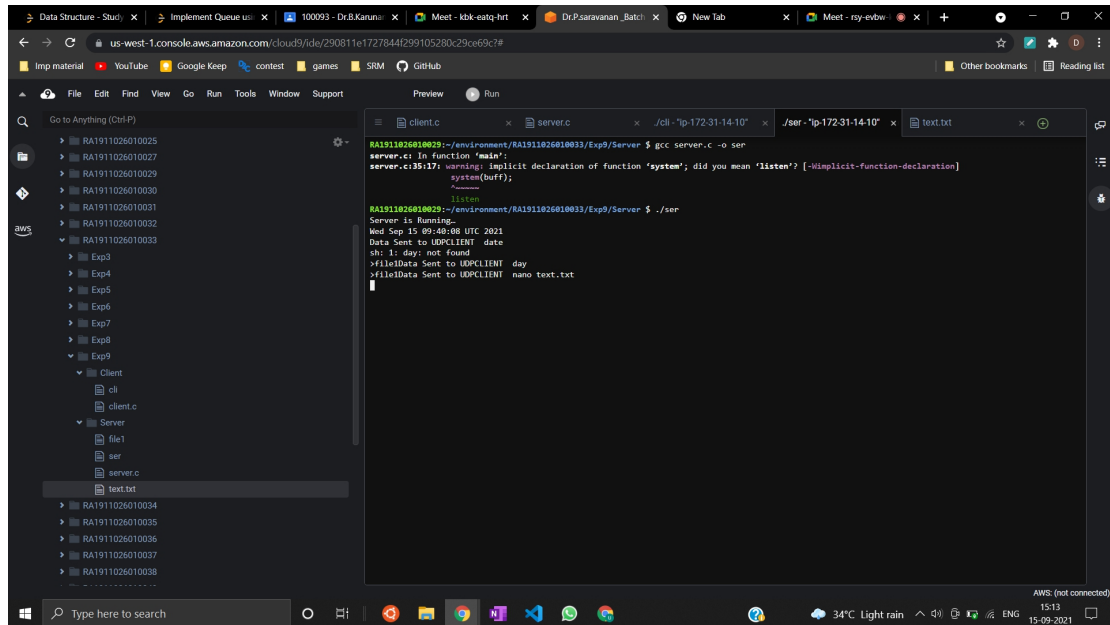
        printf("Recieved From UDPSERVER %s", file);
    }
    return 0;
}
```

Server:

```
#include <arpa/inet.h>
#include <netdb.h>
#include <netinet/in.h>
#include <stdio.h>
#include <string.h>
#include <sys/socket.h>
#include <sys/stat.h>
#include <sys/types.h>
#include <unistd.h>
int main(int argc, char *argv[])
{
    int sd, size;
    char buff[1024], file[10000];
    struct sockaddr_in cliaddr, servaddr;
    FILE *fp;
    struct stat x;
    socklen_t clilen;
    clilen = sizeof(cliaddr);
    bzero(&servaddr, sizeof(servaddr));
    servaddr.sin_family = AF_INET;
    servaddr.sin_addr.s_addr = htonl(INADDR_ANY);
    servaddr.sin_port = htons(1300);
    sd = socket(AF_INET, SOCK_DGRAM, 0);
    if (sd < 0)
    {
        printf("Socket CReation Error");
    }
    bind(sd, (struct sockaddr *)&servaddr, sizeof(servaddr));
    printf("%s", "Server is Running...\n");
    while (1)
    {
        bzero(buff, sizeof(buff));
        recvfrom(sd, buff, sizeof(buff), 0, (struct sockaddr *)&cliaddr, &clilen);
        strcat(buff, ">file1");
        system(buff);
        fp = fopen("file1", "r");
        stat("file1", &x);
        size = x.st_size;
        fread(file, size, 1, fp);
        sendto(sd, file, sizeof(file), 0, (struct sockaddr *)&cliaddr, sizeof(cliaddr));
    }
    printf("Data Sent to UDPCLIENT %s", buff);
    }
    close(sd);
    return 0;
}
```

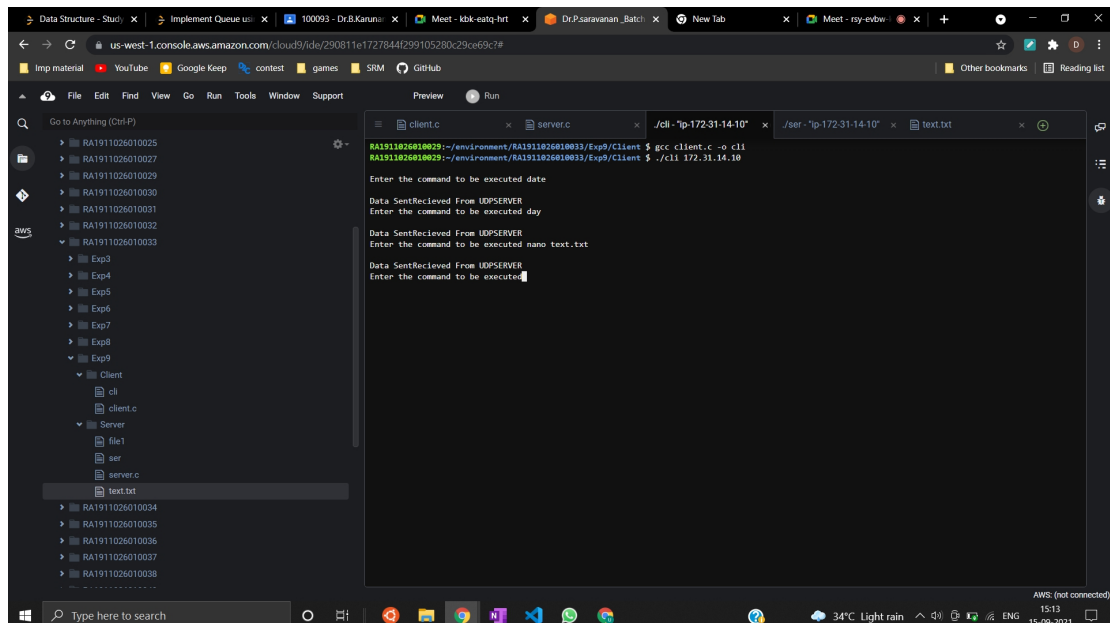
Output :

Client :



```
RA1911026010029:~/environment/RA1911026010033/Exp9/Server $ gcc server.c -o ser
server.c: In function 'main':
server.c:35:17: warning: implicit declaration of function 'system'; did you mean 'listen'? [-Wimplicit-function-declaration]
    system(buf);
    ^~~~~~
RA1911026010029:~/environment/RA1911026010033/Exp9/Server $ ./ser
Server is Running...
Mod Sep 15 09:40:08 UTC 2021
Data Sent to UDPCLIENT date
th: 1: day: not found
>fileData Sent to UDPCLIENT day
>fileData Sent to UDPCLIENT nano text.txt
```

Server :



```
RA1911026010029:~/environment/RA1911026010033/Exp9/Client $ gcc client.c -o cli
RA1911026010029:~/environment/RA1911026010033/Exp9/Client $ ./cli 172.31.14.10
Enter the command to be executed date
Data Sent/Received From UDPSERVER
Enter the command to be executed day
Data Sent/Received From UDPSERVER
Enter the command to be executed nano text.txt
Data Sent/Received From UDPSERVER
Enter the command to be executed
```