Exercise 7

Codes:

Server :

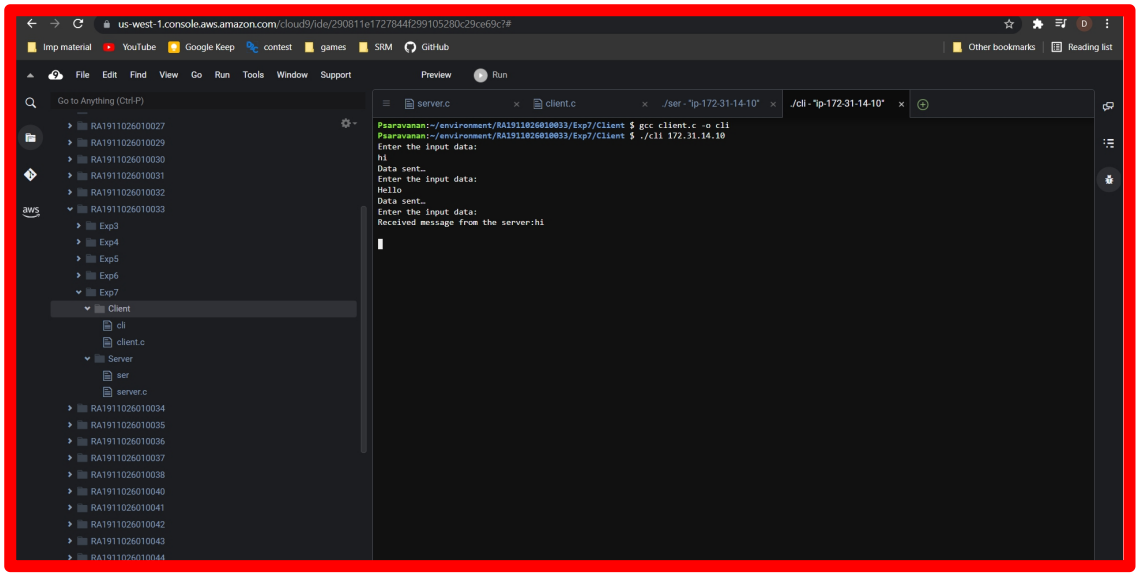
```
#include<sys/types.h>
#include<sys/socket.h>
#include<stdio.h>
#include<unistd.h>
#include<netdb.h>
#include<arpa/inet.h>
#include<netinet/in.h>
int main(int argc,char *argv[])
{
    int ad,sd;
    struct sockaddr_in servaddr,cliaddr;
    socklen_t servlen,clilen;
    char buff[1000],buff1[1000];
    pid_t cpid;
    bzero(&servaddr,sizeof(servaddr));
    servaddr.sin_family=AF_INET;
    servaddr.sin_addr.s_addr=htonl(INADDR_ANY);
    servaddr.sin_port=htons(5500);
    sd=socket(AF_INET,SOCK_STREAM,0);
    bind(sd,(struct sockaddr*)&servaddr,sizeof(servaddr));
    listen(sd,5);
    printf("%s\n","Server is running.......");
    ad=accept(sd,(struct sockaddr*)&cliaddr,&clilen);
    cpid=fork();
    if(cpid==0)
    {
            while(1)
            {
                bzero(&buff,sizeof(buff));
                recv(ad,buff,sizeof(buff),0);
            printf("Received  message from the client:%s\n",buff);
        }
    }
    else
    {
        while(1)
        {
            bzero(&buff1,sizeof(buff1));
            printf("%s\n","Enter the input data:");
            fgets(buff1,10000,stdin);
            send(ad,buff1,strlen(buff1)+1,0);
            printf("%s\n","Data sent…");
        }
    }
    return 0;
}
```

Client:

```
#include<sys/socket.h>
#include<sys/types.h>
#include<stdio.h>
#include<arpa/inet.h>
#include<unistd.h>
#include<netdb.h>
#include<netinet/in.h>
int main(int argc,char *argv[])
{
    int sd,cd;
    struct sockaddr_in servaddr,cliaddr;
    socklen_t servlen,clilen;
    char buff[1000],buff1[1000];
    pid_t cpid;
    bzero(&servaddr,sizeof(servaddr));
    servaddr.sin_family=AF_INET;
    servaddr.sin_addr.s_addr=inet_addr(argv[1]);
    servaddr.sin_port=htons(5500);
    sd=socket(AF_INET,SOCK_STREAM,0);
    cd=connect(sd,(struct sockaddr*)&servaddr,sizeof(servaddr));
    cpid=fork();
    if(cpid==0)
    {
        while(1)
        {
            bzero(&buff,sizeof(buff));
            printf("%s\n","Enter the input data:");
            fgets(buff,10000,stdin);
            send(sd,buff,strlen(buff)+1,0);
            printf("%s\n","Data sent…");
        }
    }
    else
    {
        while(1)
        {
            bzero(&buff1,sizeof(buff1));
            recv(sd,buff1,sizeof(buff1),0);
            printf("Received message from the server:%s\n",buff1);
        }
    }
    return 0;
}
```

Ouput :

Client:



Server: