

Experiement 6

Code :

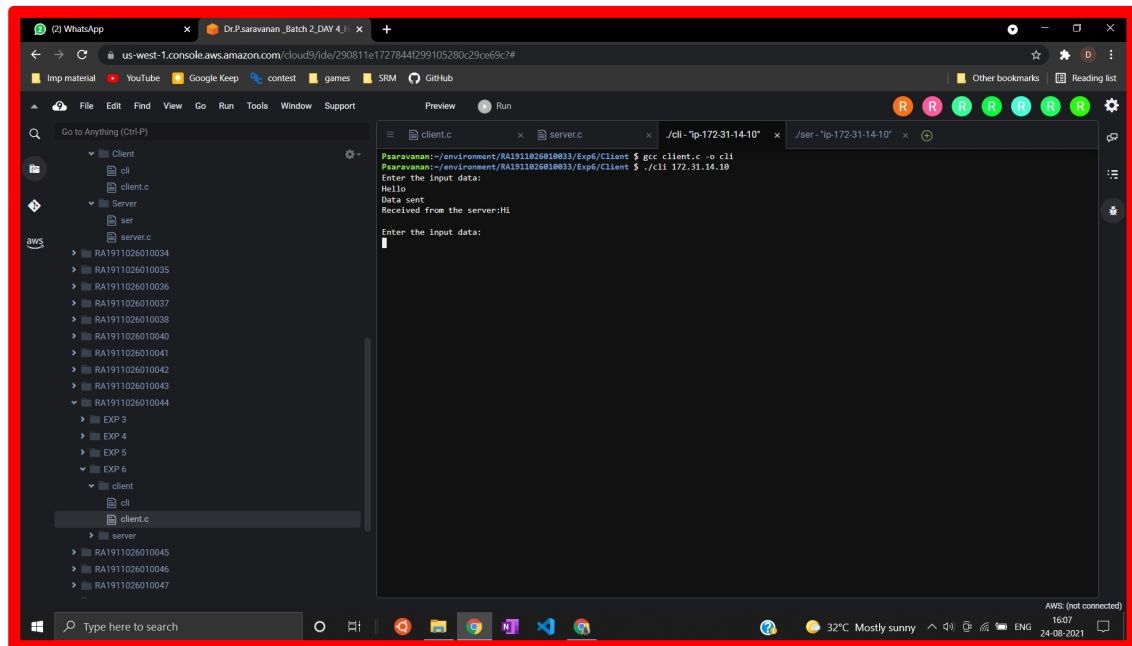
Client

```
#include<sys/types.h>
#include<sys/socket.h>
#include<arpa/inet.h>
#include<netinet/in.h>
#include<unistd.h>
#include<stdio.h>
#include<netdb.h>
int main(int argc,char *argv[])
{
    int n,sd,cd;
    struct sockaddr_in servaddr,cliaddr;
    socklen_t servlen,clilen;
    char buff[10000],buff1[10000];
    bzero(&servaddr,sizeof(servaddr));
    servaddr.sin_family=AF_INET;
    servaddr.sin_addr.s_addr=inet_addr(argv[1]);
    servaddr.sin_port=htons(5000);
    sd=socket(AF_INET,SOCK_STREAM,0);
    cd=connect(sd,(struct sockaddr*)&servaddr,sizeof(servaddr));
    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");
        n=1;
        while(n==1)
        {
            bzero(&buff1,sizeof(buff1));
            recv(sd,buff1,sizeof(buff1),0);
            printf("Received from the server:%s\n",buff1);
            n=n+1;
        }
    }
    return 0;
}
```

Server:

```
#include<sys/types.h>
#include<stdio.h>
#include<netdb.h>
#include<sys/socket.h>
#include<arpa/inet.h>
#include<unistd.h>
#include<netinet/in.h>
int main(int argc,char *argv[])
{
    int n,sd,ad;
    struct sockaddr_in servaddr,cliaddr;
    socklen_t clilen,servlen;
    char buff[1000],buff1[1000];
    bzero(&servaddr,sizeof(servaddr));
    servaddr.sin_family=AF_INET;
    servaddr.sin_addr.s_addr=htonl(INADDR_ANY);
    servaddr.sin_port=htons(5000);
    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);
    while(1)
    {
        bzero(&buff,sizeof(buff));
        recv(ad,buff,sizeof(buff),0);
        printf("Receive from the client:%s\n",buff);
        n=1;
        while(n==1)
        {
            bzero(&buff1,sizeof(buff1));
            printf("%s\n","Enter the input data:");
            fgets(buff1,1000,stdin);
            send(ad,buff1,strlen(buff1)+1,0);
            printf("%s\n","Data sent");
            n=n+1;
        }
    }
    return 0;
}
```

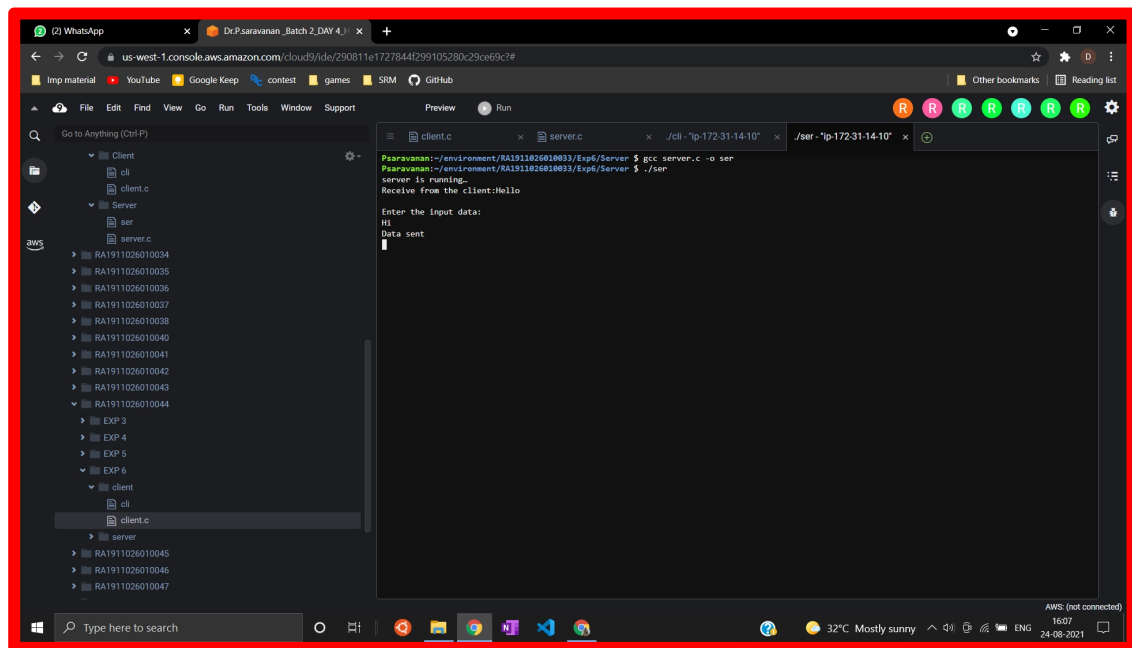
Output :



The screenshot shows the AWS Cloud9 IDE interface. The left sidebar displays a file explorer with a project structure including 'Client' (containing 'cli' and 'client.c') and 'Server' (containing 'ser' and 'server.c'). The main editor window shows the output of a program. The terminal output is as follows:

```
Psaravanan~/environment/RA1911026010033/Exp6/Client $ gcc client.c -o cli
Psaravanan~/environment/RA1911026010033/Exp6/Client $ ./cli 172.31.14.10
Enter the input data:
Hello
Data sent
Received from the server:HI
Enter the input data:
```

Server



The screenshot shows the AWS Cloud9 IDE interface. The left sidebar displays a file explorer with a project structure including 'Client' (containing 'cli' and 'client.c') and 'Server' (containing 'ser' and 'server.c'). The main editor window shows the output of a program. The terminal output is as follows:

```
Psaravanan~/environment/RA1911026010033/Exp6/Server $ gcc server.c -o ser
Psaravanan~/environment/RA1911026010033/Exp6/Server $ ./ser
server is running...
Receive from the client:Hello
Enter the input data:
HI
Data sent
```