**EX.No : CLIENT-SERVER PROGRAM IN C USING SOCKETS & TCP**

**DATE :**

**AIM :**

**CODING :**

**SERVER CODE :**

#include <stdio.h>

#include <sys/socket.h>

#include <netinet/in.h>

#include <string.h>

int main()

{

int welcomeSocket, newSocket;

char buffer[1024];

struct sockaddr\_in serverAddr;

struct sockaddr\_storage serverStorage;

socklen\_t addr\_size;

welcomeSocket = socket(PF\_INET, SOCK\_STREAM, 0);

serverAddr.sin\_family = AF\_INET;

serverAddr.sin\_port = htons(2058);

serverAddr.sin\_addr.s\_addr = inet\_addr("127.0.0.1");

memset(serverAddr.sin\_zero, '\0', sizeof serverAddr.sin\_zero);

bind(welcomeSocket, (struct sockaddr \*) &serverAddr, sizeof(serverAddr));

if(listen(welcomeSocket,5)==0)

printf("listening\n");

else

printf("Error\n");

addr\_size = sizeof serverStorage;

newSocket = accept(welcomeSocket, (struct sockaddr \*) &serverStorage, &addr\_size);

strcpy(buffer,"Hello World\n");

send(newSocket,buffer,13,0);

return 0;

}

**CLIENT CODE :**

#include <stdio.h>

#include <sys/socket.h>

#include <netinet/in.h>

#include <string.h>

int main()

{

int clientSocket;

char buffer[1024];

struct sockaddr\_in serverAddr;

socklen\_t addr\_size;

clientSocket = socket(PF\_INET, SOCK\_STREAM, 0);

serverAddr.sin\_family = AF\_INET;

serverAddr.sin\_port = htons(2058);

serverAddr.sin\_addr.s\_addr = inet\_addr("127.0.0.1");

memset(serverAddr.sin\_zero, '\0', sizeof serverAddr.sin\_zero);

addr\_size = sizeof serverAddr;

connect(clientSocket, (struct sockaddr \*) &serverAddr, addr\_size);

recv(clientSocket, buffer, 1024, 0);

printf("Data received: %s",buffer);

return 0;

}

**OUTPUT :**

**SERVER OUTPUT :**

[201603052@Putty ~]$ vi sp1.c

[201603052@Putty ~]$ gcc sp1.c

[201603052@Putty ~]$ ./a.out

Listening

**CLIENT OUTPUT :**

[201603052@Putty ~]$ vi sp1a.c

[201603052@Putty ~]$ gcc sp1a.c

[201603052@Putty ~]$ ./a.out

Data received: Hello World