**ROLL NO.: 19L-1316**

**EXPERIMENT 7**

**InterProcess Communication using Sockets**

**SERVER CODE:**

#include<unistd.h>

#include<sys/types.h>

#include<sys/socket.h>

#include<netinet/in.h>

#include<stdio.h>

int main()

{

char \*a="21",\*b="107";

char \*sign="\*";

int sd;

char\* msg="connected";

char msg1[100];

struct sockaddr\_in my\_addr, client\_addr;

my\_addr.sin\_family=AF\_INET;

my\_addr.sin\_port=htons(4999);

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

sd=socket(AF\_INET,SOCK\_STREAM,0);

bind(sd,(struct sockaddr \*) &my\_addr,sizeof(struct sockaddr\_in));

listen(sd,5);

int size=sizeof(struct sockaddr);

int new\_sd=accept(sd,(struct sockaddr\*)&client\_addr,&size);

send(new\_sd, a,100,0);

send(new\_sd, b,100,0);

send(new\_sd, sign,100,0);

recv(new\_sd,msg1,100,0);

printf("%s\n",msg1);

return 0;

}

**CLIENT CODE:**

#include<unistd.h>

#include<sys/types.h>

#include<sys/socket.h>

#include<netinet/in.h>

#include<stdio.h>

int main()

{

int sd;

char msg[100];

char msg1[10];

struct sockaddr\_in server\_addr;

server\_addr.sin\_family=AF\_INET;

server\_addr.sin\_port=htons(4999);

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

sd=socket(AF\_INET,SOCK\_STREAM,0);

connect(sd,(struct sockaddr\*)&server\_addr,sizeof(struct sockaddr));

recv(sd,msg,100,0);

int x=atoi(msg);

printf("%i\n",x);

recv(sd,msg,100,0);

int y=atoi(msg);

printf("%i\n",y);

recv(sd,msg,100,0);

int z=0;

if(\*msg == '+')z=x+y;

if(\*msg == '-')z=x-y;

if(\*msg == '\*')z=x\*y;

if(\*msg == '/')z=x/y;

sprintf(msg1,"%d",z);

char \*p=msg1;

send(sd,p,10,0);

return 0;

}



