

***) IMPLEMENT UDP SOCKET TO SEND A MESSAGE FROM CLIENT AND DISPLAY IT IN SERVER
(MESSAGE WILL BE YOUR NAME WITH ROLL NUMBER).**

Server

```
isahaan@8f1906557: ~/cnlab/classroom1
GNU nano 4.8 server.c
#include <stdio.h>
#include <stdlib.h>
#include <unistd.h>
#include <errno.h>
#include <string.h>
#include <sys/types.h>
#include <sys/socket.h>
#include <netinet/in.h>
#include <arpa/inet.h>
#define MYPORT 4952 // the port users will be connecting to
#define MAXBUFLen 200
int main()
{
    int sockfd,x_557;
    struct sockaddr_in my_addr; // my address information
    struct sockaddr_in their_addr; // connector's address information
    socklen_t addr_len;
    int numbytes;
    char buf[MAXBUFLen];
    if ((sockfd = socket(AF_INET, SOCK_DGRAM, 0)) == -1) {
        perror("socket");
        exit(1);
    }
    my_addr.sin_family = AF_INET; // host byte order
    my_addr.sin_port = htons(MYPORT); // short, network byte order
    my_addr.sin_addr.s_addr = INADDR_ANY; // automatically fill with my IP
    //memset(my_addr.sin_zero, '\0', sizeof my_addr.sin_zero);
    if (bind(sockfd, (struct sockaddr *)&my_addr, sizeof my_addr) == -1) {
        perror("bind");
        exit(1);
    }
    addr_len = sizeof their_addr;
    recvfrom(sockfd, &x_557, sizeof(x_557), 0,
              (struct sockaddr *)&their_addr, &addr_len);
    recvfrom(sockfd, buf, sizeof(buf), 0,
              (struct sockaddr *)&their_addr, &addr_len);
    //buf[numbytes] = '\0';
    printf("%s %d",buf,x_557);
    close(sockfd);
    return 0;
}
```

```
isahaan@8f1906557: ~/cnlab/classroom1
GNU nano 4.8 server.c
#include <sys/types.h>
#include <sys/socket.h>
#include <netinet/in.h>
#include <arpa/inet.h>
#define MYPORT 4952 // the port users will be connecting to
#define MAXBUFLen 200
int main()
{
    int sockfd,x_557;
    struct sockaddr_in my_addr; // my address information
    struct sockaddr_in their_addr; // connector's address information
    socklen_t addr_len;
    int numbytes;
    char buf[MAXBUFLen];
    if ((sockfd = socket(AF_INET, SOCK_DGRAM, 0)) == -1) {
        perror("socket");
        exit(1);
    }
    my_addr.sin_family = AF_INET; // host byte order
    my_addr.sin_port = htons(MYPORT); // short, network byte order
    my_addr.sin_addr.s_addr = INADDR_ANY; // automatically fill with my IP
    //memset(my_addr.sin_zero, '\0', sizeof my_addr.sin_zero);
    if (bind(sockfd, (struct sockaddr *)&my_addr, sizeof my_addr) == -1) {
        perror("bind");
        exit(1);
    }
    addr_len = sizeof their_addr;
    recvfrom(sockfd, &x_557, sizeof(x_557), 0,
              (struct sockaddr *)&their_addr, &addr_len);
    recvfrom(sockfd, buf, sizeof(buf), 0,
              (struct sockaddr *)&their_addr, &addr_len);
    //buf[numbytes] = '\0';
    printf("%s %d",buf,x_557);
    close(sockfd);
    return 0;
}
```

Client

```
isahan@811906557: ~/cnlab/classroom1
GNU nano 4.8 client.c Modified
#include <stdio.h>
#include <stdlib.h>
#include <unistd.h>
#include <errno.h>
#include <string.h>
#include <sys/types.h>
#include <sys/socket.h>
#include <netinet/in.h>
#include <arpa/inet.h>
#include <netdb.h>
#define SERVERPORT 4952 // the port users will be connecting to
int main()
{
    int sockfd, x_557;
    struct sockaddr_in their_addr; // connector's address information
    //struct hostent *he;
    int numbytes;
    char arg[30];
    if ((sockfd = socket(AF_INET, SOCK_DGRAM, 0)) == -1) {
        perror("socket");
        exit(1);
    }
    their_addr.sin_family = AF_INET; // host byte order
    their_addr.sin_port = htons(SERVERPORT); // short, network byte order
    their_addr.sin_addr.s_addr = inet_addr("127.0.0.1");
    //memset(their_addr.sin_zero, '\0', sizeof their_addr.sin_zero);
    printf("Enter roll no\n");
    scanf("%d",&x_557);
    sendto(sockfd, &x_557, sizeof(x_557), 0,
    (struct sockaddr *)&their_addr, sizeof their_addr);
    printf("\nEnter name\n");
    scanf("%s", arg);
    sendto(sockfd, arg, strlen(arg), 0,
    (struct sockaddr *)&their_addr, sizeof their_addr);
    printf("sent");
    close(sockfd);
    return 0;
}
[ Read 38 lines ]
⌘ Get Help ⌘ Write Out ⌘ Where Is ⌘ Cut Text ⌘ Justify ⌘ Cur Pos ⌘ Undo ⌘ Mark Text ⌘ To Bracket ⌘ Previous
⌘ Exit ⌘ Read File ⌘ Replace ⌘ Paste Text ⌘ To Spell ⌘ Go To Line ⌘ Redo ⌘ Copy Text ⌘ Where Was ⌘ Next
Type here to search
ENG 10:45 PM
US 8/18/2021
```

Output:

Client

```
ishaan@BT1906557: ~/cnlab/classroom1
ishaan@BT1906557:~$ cd cnlab
ishaan@BT1906557:~/cnlab$ cd classroom1
ishaan@BT1906557:~/cnlab/classroom1$ nano client.c
ishaan@BT1906557:~/cnlab/classroom1$ gcc client.c -o client
ishaan@BT1906557:~/cnlab/classroom1$ ./client
Enter roll no
1906557

Enter name
Ishaan
sent:ishaan@BT1906557:~/cnlab/classroom1$
```

Server:

```
ishaan@BT1906557: ~/cnlab/classroom1
ishaan@BT1906557:~/cnlab/classroom1$ gcc server.c -o server
ishaan@BT1906557:~/cnlab/classroom1$ ./server
Ishaan 1906557:ishaan@BT1906557:~/cnlab/classroom1$
```