

UDP Socket Programming Assignment

Done by- Kaushal Mittal (IMT2017024)
Ayush Yadav (IMT2017009)

This project has been done using C programming language.
We have used command line input for specifying the port number and IP (of the Server).
This uses UDP Protocol to send(unsorted array) and receive(Sorted array).

SERVER SIDE

```
vim vim udp_server.c ... ..DP_IMT2017009
Ayushs-MacBook-Air-2 : Computer Networks/assignments/UDP_IMT2017009 : ./a.out 9001
6,9,3,8
Ayushs-MacBook-Air-2 : Computer Networks/assignments/UDP_IMT2017009 : ./a.out 9001
435,23,657,976
Ayushs-MacBook-Air-2 : Computer Networks/assignments/UDP_IMT2017009 : ./a.out 9001
4534543,21312213,334534546,987654326
Ayushs-MacBook-Air-2 : Computer Networks/assignments/UDP_IMT2017009 :
```

CLIENT SIDE

```
IMT2017024_UDP_client.c -- ~/Desktop/SEM_2/Computer Networks/Assignment -- Atom
File Edit View Search Find Packages Help
Project IMT2017024_UDP_client.c IMT2017024_TCP_Server.c
11 int main(int argc, char **argv[])
12 {
13     int sock, length, n;
14     char arr[256];
15
16     //Creating a Client Socket
17     sock = socket(AF_INET, SOCK_DGRAM, 0);
18
19     //Declaring sockaddr for client socket and
20     //Initialising sockaddr(IP, Port, Family) for Server
21     struct sockaddr_in server, client;
22     server.sin_family = AF_INET;
23     server.sin_port = htons(atoi(argv[2]));
24     server.sin_addr.s_addr = inet_addr(argv[1]);
25
26     length = sizeof(struct sockaddr_in);
27
28     printf("Input the sequence as string: ");
29     scanf("%s", arr);
30
31     n = sendto(sock, arr, strlen(arr), 0, (struct sockaddr*)&server, length);
32     if (n < 0) printf("Error: Sendto\n");
33
34     n = recvfrom(sock, arr, 256, 0, (struct sockaddr*)&client, &length);
35     if (n < 0) printf("Error: Recvfrom\n");
36
37     printf("Descending sequence is: %s\n", arr);
38 }
IMT2017024_UDP_client.c 23:34 LF UTF-8 C 0 files 7 updates 23:22
Menu Java - Best wa... [Terminal] Assignment [Terminal] IMT2017024...
Assignment$ ./a.out 172.16.86.27 9001
Input the sequence as string: 6,9,3,8
Descending sequence is: 9,8,6,3
Assignment$ ./a.out 172.16.86.27 9001
Input the sequence as string: 435,23,657,976
Descending sequence is: 976,657,435,23
Assignment$ ./a.out 172.16.86.27 9001
Input the sequence as string: 4534543,21312213,334534546,987654326
Descending sequence is: 987654326,334534546,21312213,4534543
Assignment$
```