LAB ASSIGNMENT – 7

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Code –

Server Side

```c
#include <stdio.h>

#include <stdlib.h>

#include <string.h>

#include <sys/socket.h>

#include <sys/types.h>

#include <netinet/in.h>

#include <arpa/inet.h>


void main(int argc, char **argv){
  if(argc != 2){
    printf("Usage: %s <port>\n", argv[0]);
    exit(0);
  }

  int port = atoi(argv[1]);
  int sockfd;
  struct sockaddr_in si_me, si_other;
  char buffer[1024];
  socklen_t addr_size;
```

```c
    sockfd = socket(AF_INET, SOCK_DGRAM, 0);


    memset(&si_me, '\0', sizeof(si_me));

    si_me.sin_family = AF_INET;

    si_me.sin_port = htons(port);

    si_me.sin_addr.s_addr = inet_addr("127.0.0.1");


    bind(sockfd, (struct sockaddr*)&si_me, sizeof(si_me));

    addr_size = sizeof(si_other);

    recvfrom(sockfd, buffer, 1024, 0, (struct sockaddr*)& si_other, &addr_size);

    printf("[+]Data Received: %s", buffer);


}
```

Client Side

```c
#include <stdio.h>

#include <stdlib.h>

#include <string.h>

#include <sys/socket.h>

#include <sys/types.h>

#include <netinet/in.h>

#include <arpa/inet.h>


void main(int argc, char **argv){

 if(argc != 2){

   printf("Usage: %s <port>\n", argv[0]);
```

```c
    exit(0);
  }


  int port = atoi(argv[1]);

  int sockfd;

  struct sockaddr_in serverAddr;

  char buffer[1024];

  socklen_t addr_size;


  sockfd = socket(PF_INET, SOCK_DGRAM, 0);

  memset(&serverAddr, '\0', sizeof(serverAddr));


  serverAddr.sin_family = AF_INET;

  serverAddr.sin_port = htons(port);

  serverAddr.sin_addr.s_addr = inet_addr("127.0.0.1");


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

  sendto(sockfd, buffer, 1024, 0, (struct sockaddr*)&serverAddr,
sizeof(serverAddr));

  printf("[+]Data Send: %s", buffer);


}
```

Output –

Server Side

```
grihit@DESKTOP-19NUGT0:/mnt/d/Study Material/SEM 4/NETCOM/LAB/Socket UDP$ gcc server.c -o server
grihit@DESKTOP-19NUGT0:/mnt/d/Study Material/SEM 4/NETCOM/LAB/Socket UDP$ ./server 4321
[+]Data Received: Hello Server
grihit@DESKTOP-19NUGT0:/mnt/d/Study Material/SEM 4/NETCOM/LAB/Socket UDP$
```

Client Side

```
grihit@DESKTOP-19NUGT0:/mnt/d/Study Material/SEM 4/NETCOM/LAB/Socket UDP$ gcc client.c -o client
grihit@DESKTOP-19NUGT0:/mnt/d/Study Material/SEM 4/NETCOM/LAB/Socket UDP$ ./client 4321
[+]Data Send: Hello Server
grihit@DESKTOP-19NUGT0:/mnt/d/Study Material/SEM 4/NETCOM/LAB/Socket UDP$
```

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