CN Assignment 7

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Code:

A. Server.c

```c
#include<stdio.h>
#include<netinet/in.h>
#include<sys/types.h>
#include<sys/socket.h>
#include<netdb.h>
#include<string.h>
#include<stdlib.h>
#define MAX 80
#define PORT 43454
#define SA struct sockaddr
void func(int sockfd)
{
    char buff[MAX];
    int n,clen;
    struct sockaddr_in cli;
    clen=sizeof(cli);
    for(;;)
    {
        bzero(buff,MAX);
        recvfrom(sockfd,buff,sizeof(buff),0,(SA *)&cli,&clen);
        printf("From client: %s To client: ",buff);
        bzero(buff,MAX);
        n=0;
        while((buff[n++]=getchar())!='\n');
            sendto(sockfd,buff,sizeof(buff),0,(SA *)&cli,clen);
        if(strncmp("exit",buff,4)==0)
        {
            printf("Server Exit...\n");
            break;
        }
    }
}
int main()
{
    int sockfd;
    struct sockaddr_in servaddr;
    sockfd=socket(AF_INET,SOCK_DGRAM,0);
```

```c
    if(sockfd==-1)
    {
        printf("socket creation failed...\n");
        exit(0);
    }
    else
        printf("Socket successfully created..\n");
    bzero(&servaddr,sizeof(servaddr));
    servaddr.sin_family=AF_INET;
    servaddr.sin_addr.s_addr=htonl(INADDR_ANY);
    servaddr.sin_port=htons(PORT);
    if((bind(sockfd,(SA *)&servaddr,sizeof(servaddr)))!=0)
    {
        printf("socket bind failed...\n");
        exit(0);
    }
    else
        printf("Socket successfully binded..\n");
    func(sockfd);
    close(sockfd);
}
```

B. Client.c

```c
#include<sys/socket.h>
#include<netdb.h>
#include<string.h>
#include<stdlib.h>
#include<stdio.h>
#define MAX 80
#define PORT 43454
#define SA struct sockaddr
int main()
{
    char buff[MAX],name[MAX];
    int sockfd,len,n;
    struct sockaddr_in servaddr;
    printf("Enter Client Name: ");
    gets(name);
    sockfd=socket(AF_INET,SOCK_DGRAM,0);
    if(sockfd==-1)
    {
        printf("socket creation failed...\n");
        exit(0);
    }
    else
```

```c
        printf("Socket successfully created..\n");
    bzero(&servaddr,sizeof(len));
    servaddr.sin_family=AF_INET;
    servaddr.sin_addr.s_addr=inet_addr("127.0.0.1");
    servaddr.sin_port=htons(PORT);
    len=sizeof(servaddr);
    for(;;)
    {
        printf("\nEnter string : ");
        n=0;
        while((buff[n++]=getchar())!='\n');
            sendto(sockfd,buff,sizeof(buff),0,(SA *)&servaddr,len);
        bzero(buff,sizeof(buff));
        recvfrom(sockfd,buff,sizeof(buff),0,(SA *)&servaddr,&len);
        printf("From Server : %s\n",buff);
        if(strncmp("exit",buff,4)==0)
        {
            printf("Client Exit...\n");
            break;
        }
    }
    close(sockfd);
}
```

Output: