



CN LAB- 24.8.21

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WAP to implement an UDP Socket through which client will send few commands to the server.

FOR EXAMPLE :

1. If client is sending list, server will send back the list of file names present in the current working directory.
2. If Client is sending radr filename, then server will send back the content of the file to the client.

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>
#include <dirent.h>
#define MYPOR 4952
#define MAXBUFL 200
int main(){
    int sockfd;
    struct sockaddr_in my_addr;
    struct sockaddr_in their_addr;
    socklen_t addr_len;
    DIR *d;
    struct dirent *dir;
    int numbytes;
    char buf[MAXBUFL], buf1[MAXBUFL];
    if ((sockfd = socket(AF_INET, SOCK_DGRAM, 0)) == -1) {
        perror("socket");
        exit(1);
    }
    my_addr.sin_family = AF_INET;
    my_addr.sin_port = htons(MYPOR);
    my_addr.sin_addr.s_addr = INADDR_ANY;
    if (bind(sockfd, (struct sockaddr *)&my_addr, sizeof my_addr) == -1) {
        perror("bind");
        exit(1);
    }
    addr_len = sizeof their_addr;
    if ((numbytes = recvfrom(sockfd, buf, MAXBUFL-1, 0,
        (struct sockaddr *)&their_addr, &addr_len)) == -1) {
        perror("recvfrom");
        exit(1);
    }
    char abc[10000];
    strcpy(abc, "/home/user/CN_LAB/");
    strcat(abc, buf);
    char mn[10];
    strcpy(mn, "exit");
    d = opendir(abc);
    if(d){
        while((dir=readdir(d))!=NULL)
            printf("%s\n", dir->d_name);
    }
```

```

        closedir(d);
    }
    recvfrom(sockfd, buf1, MAXBUFLen-1, 0,
    (struct sockaddr *)&their_addr, &addr_len);
    FILE *fp;
    char ch;
    fp=fopen(buf1,"r");
    while(1){
        ch=fgetc(fp);
        if(ch==EOF)
            break;
        printf("%c",ch);
    }
    fclose(fp);
    close(sockfd);
    return 0;
}

```

Client.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>
#include <netdb.h>
#define SERVERPORT 4952
int main(){
    int sockfd;
    struct sockaddr_in their_addr;
    int numbytes;
    char arg[30];
    if ((sockfd = socket(AF_INET, SOCK_DGRAM, 0)) == -1) {
        perror("socket");
        exit(1);
    }
    their_addr.sin_family = AF_INET;
    their_addr.sin_port = htons(SERVERPORT);
    their_addr.sin_addr.s_addr = inet_addr("127.0.0.1");
    printf("Enter the folder name\n");
    scanf("%s",arg);
    if ((numbytes = sendto(sockfd, arg, strlen(arg), 0,
    (struct sockaddr *)&their_addr, sizeof their_addr)) == -1) {
        perror("sendto");
        exit(1);
    }
    printf("\nEnter the file name with extension\n");
    scanf("%s",arg);
    sendto(sockfd, arg, strlen(arg), 0,
    (struct sockaddr *)&their_addr, sizeof their_addr);
    close(sockfd);
    return 0;
}

```

OUTPUT:

Output in Next page...

```
kiit@kiit-VirtualBox: ~/1906534/CN/lab6
File Edit View Search Terminal Help
kiit@kiit-VirtualBox:~$ cd 1906534/CN/lab6
kiit@kiit-VirtualBox:~/1906534/CN/lab6$ ./client
Enter the folder name
lab6

Enter the file name with extension
server.c
kiit@kiit-VirtualBox:~/1906534/CN/lab6$ ./client
Enter the folder name
test

kiit@kiit-VirtualBox: ~/1906534/CN/lab6
File Edit View Search Terminal Help
printf("packet is %d bytes long\n",numbytes);
buf[numbytes] = '\0';
printf("packet contains \"%s\"\n",buf);*/
recvfrom(sockfd, buf1, MAXBUFLen-1 , 0,
(struct sockaddr *)&their_addr, &addr_len);
FILE *fp;
char ch;
fp=fopen(buf1,"r");
while(1)
{
ch=fgetc(fp);
if(ch==EOF)
break;
printf("%c",ch);
}
fclose(fp);
close(sockfd);
return 0;
}
kiit@kiit-VirtualBox:~/1906534/CN/lab6$ ./server
Hi, This is Ankit Raj File :)
Welcome to my code,
Thank you for visiting.
kiit@kiit-VirtualBox:~/1906534/CN/lab6$
```