



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 MYPORT 4952
#define MAXBUFLEN 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[MAXBUFLEN], buf1[MAXBUFLEN];
    if ((sockfd = socket(AF_INET, SOCK_DGRAM, 0)) == -1) {
        perror("socket");
        exit(1);
    }
    my_addr.sin_family = AF_INET;
    my_addr.sin_port = htons(MYPORT);
    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, MAXBUFLEN-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;
}

```