

```
//Server
```

```
#include<sys/socket.h>
#include<arpa/inet.h>
#include<stdio.h>
#include<unistd.h>
#include<fcntl.h>
#include<sys/types.h>
#include<string.h>
#include<stdlib.h>
#define maxlen 70000
#define mlen 100000
int main()
{
    char fileName[100];
    char filebuffer[2000],caufile[maxlen];
    char *vfilep;
    int aufile[700000],vfile[mlen];
    int sd,connfd,len;

    for(int i=0;i<=100;i++){
        fileName[i]='\0';
    }
    struct sockaddr_in servaddr,cliaddr;

    sd = socket(AF_INET, SOCK_DGRAM, 0);

    if(sd==-1)
    {
        printf(" socket not created in server\n");
        exit(0);
    }
    else
    {
        printf("socket created in  server\n");
    }

    bzero(&servaddr, sizeof(servaddr));

    servaddr.sin_family = AF_INET;
    servaddr.sin_addr.s_addr = INADDR_ANY;
    servaddr.sin_port = htons(8000);
    memset(&(servaddr.sin_zero),'\0',8);
    if ( bind(sd, (struct sockaddr *)&servaddr, sizeof(servaddr)) != 0 )
        printf("Not binded\n");
    else
        printf("Binded\n");

    len=sizeof(cliaddr);

    int choice =1;
    while(1)
    {
        char num;
```

```
recvfrom(sd,&num,sizeof(num),0,(struct sockaddr *)&cliaddr, &len);
```

```
choice = num;
```

```
switch(choice)
```

```
{
```

```
case 1:
```

```
recvfrom(sd,fileName,1024,0,(struct sockaddr *)&cliaddr, &len);
```

```
printf("NAME OF TEXT FILE RECEIVED : %s\n",fileName);
```

```
FILE *fp;
```

```
printf("Contents in the received text file : \n");
```

```
recvfrom(sd,filebuffer,1024,0,(struct sockaddr *)&cliaddr, &len);
```

```
printf("%s\n",filebuffer);
```

```
int fsize=strlen(filebuffer);
```

```
fp=fopen(fileName,"w");
```

```
if(fp)
```

```
{
```

```
fwrite(filebuffer, fsize, 1, fp);
```

```
printf("File received successfully.\n");
```

```
}
```

```
else
```

```
{
```

```
printf("Cannot create to output file.\n");
```

```
}
```

```
memset(fileName, '\0', sizeof(fileName));
```

```
fclose(fp);
```

```
break;
```

```
case 2:
```

```
recvfrom(sd,fileName,1024,0,(struct sockaddr *)&cliaddr, &len);
```

```
printf("NAME OF AUDIO FILE RECEIVED : %s\n",fileName);
```

```
FILE *afp;
```

```
int numbytes;
```

```
afp=fopen(fileName,"w");
```

```
size_t afdsize;
```

```
afsize=recvfrom(sd,aufile,700000,0,(struct sockaddr *)&cliaddr, &len);
```

```
if(afp)
```

```
{
```

```
fwrite(aufile, afdsize, 1, afp);
```

```
printf("File received successfully.\n");
```

```
}
```

```
else
```

```
{
```

```
printf("Cannot open output file.\n");
```

```
}
```

```
memset(fileName, '\0', sizeof(fileName));
```

```
fclose(afp);
```

```
break;
```

```
case 3:
```

```
recvfrom(sd,fileName,1024,0,(struct sockaddr *)&cliaddr, &len);
```

```
printf("VIDEO FILE NAME RECEIVED : %s\n",fileName);
```

```

FILE *vfp;
vfp=fopen(fileName,"w");
size_t vsize;
vsize=recvfrom(sd,vfile,100000,0,(struct sockaddr *)&cliaddr, &len);

if(vfp)
{
    fwrite(vfile, vsize, 1, vfp);
    printf("File received successfully.\n");
}
else
{
    printf("Cannot open output file.\n");
}
fclose(vfp);
break;

case 4:
close(sd);
break;

}
}
return(0);
}

```

//Client

```

#include <stdio.h>
#include <stdlib.h>
#include <unistd.h>
#include <string.h>
#include <sys/types.h>
#include <sys/socket.h>
#include <arpa/inet.h>
#include <netinet/in.h>

```

```

int main() {
int fd;
char fileName[2000],afileName[2000],vfileName[2000],file_buffer[2000],c,caufile[70000],aufile[7000000],vfile[1000000];
struct sockaddr_in servaddr;

```

```

// Creating socket file descriptor
if ( (fd = socket(AF_INET, SOCK_DGRAM, 0)) < 0 ) {
perror("socket creation failed");
exit(EXIT_FAILURE);
}

```

```

memset(&servaddr, 0, sizeof(servaddr));

```

```

bzero(&servaddr,sizeof(servaddr));

```

```

// Filling server information
servaddr.sin_family = AF_INET;
servaddr.sin_port = htons(8000);
servaddr.sin_addr.s_addr = INADDR_ANY;
// servaddr.sin_addr.s_addr=inet_addr("10.10.10.73");
int choice = 1;

while(choice!=4)
{
printf("ENTER \n 1.TEXT \n 2.AUDIO \n 3.VIDEO\n4.EXIT");
scanf("%d",&choice);

char num=choice;

sendto(fd, &num, sizeof(num), 0,(struct sockaddr *)&servaddr, sizeof(struct sockaddr));

switch(choice)
{
case 1:
printf("Enter text file name to send : \n");
scanf("%s",fileName);
sendto(fd, fileName, strlen(fileName), 0,(struct sockaddr *)&servaddr, sizeof(struct sockaddr));

FILE *fp;
fp=fopen(fileName,"r");

if(fp)
{
printf("Reading file contents.\n");
fseek(fp,0,SEEK_END);
size_t file_size=ftell(fp);
fseek(fp,0,SEEK_SET);
if(fread(file_buffer,file_size,1,fp)<=0)
{
printf("Unable to copy file into buffer or empty file.\n");
exit(1);
}
}
else
{
printf("Cannot open file.\n");
exit(0);
}
printf("FILE CONTENTS TO SEND : %s\n",file_buffer);
if(sendto(fd, file_buffer,strlen(file_buffer), 0,(struct sockaddr *)&servaddr, sizeof(struct sockaddr))<0)
{
printf("FILE WAS NOT SENT\n");
}
else
{
printf("FILE SENT\n");
}
fclose(fp);
break;

```

```

case 2:
    printf("Enter audio file name to send : \n");
    scanf("%s",afileName);
    sendto(fd, afileName, strlen(afileName), 0,(struct sockaddr *)&servaddr, sizeof(struct sockaddr));
FILE *afp;
afp=fopen(afileName,"r");
fseek(afp,0,SEEK_END);
size_t afilesize=ftell(afp);
fseek(afp,0,SEEK_SET);

if(afp)
{
    printf("Reading file contents.\n");
    if(fread(afile,afilesize,1,afp)<=0)
    {
        printf("Unable to copy file into buffer or empty file.\n");
        exit(1);
    }
}
else
{
    printf("Could not read audio file.\n");
    exit(0);
}

if(sendto(fd, afile, afilesize, 0,(struct sockaddr *)&servaddr, sizeof(struct sockaddr))<0)
{
    printf("FILE WAS NOT SENT\n");
}
else
{
    printf("FILE SENT\n");
}
fclose(afp);
break;

case 3:
    printf("Enter video file name to send : \n");
    scanf("%s",vfileName);
    sendto(fd, vfileName, strlen(vfileName), 0,(struct sockaddr *)&servaddr, sizeof(struct sockaddr));
FILE *vfp;
vfp=fopen(vfileName,"r");

fseek(vfp, 0, SEEK_END);
size_t vfilesize = ftell(vfp);
fseek(vfp, 0, SEEK_SET);

if(vfp)
{
    if(fread(vfile, 1, vfilesize, vfp)<=0)
    {
        printf("No contents or error reading file \n");
    }
}

```

```
}
else
{
printf("Could not read audio file.\n");
exit(0);
}
if(sendto(fd, vfile, vfile_size, 0, (struct sockaddr *)&servaddr, sizeof(struct sockaddr))<0)
{
printf("FILE WAS NOT SENT\n");
}
else
{
printf("FILE SENT\n");
}
fclose(vfp);
break;

case 4:
close(fd);
break;

}

}

}
```