**TCP File transfer**

**//CLIENT SIDE**

#include <stdio.h>

#include <stdlib.h>

#include <unistd.h>

#include <string.h>

#include <sys/types.h>

#include <sys/socket.h>

#include <netinet/in.h>

#include <netdb.h>

#include<arpa/inet.h>

#include<unistd.h>

#define PORT 6500

void error(const char \*msg)

{

perror(msg);

exit(0);

}

int main(int argc, char \*argv[])

{

int sockfd, portno, n;

struct sockaddr\_in serv\_addr;

struct hostent \*server; char fname[25];

char buffer[1000];

if (argc < 3) {

fprintf(stderr,"usage %s hostname port\n", argv[0]);

exit(0);

}

portno = PORT;

sockfd = socket(AF\_INET, SOCK\_STREAM, 0);

if (sockfd < 0)

error("ERROR opening socket");

server = gethostbyname(argv[1]);

if (server == NULL) {

fprintf(stderr,"ERROR, no such host\n");

exit(0);

}

bzero((char \*) &serv\_addr, sizeof(serv\_addr));

serv\_addr.sin\_family = AF\_INET;

bcopy((char \*)server->h\_addr,

(char \*)&serv\_addr.sin\_addr.s\_addr,

server->h\_length);

serv\_addr.sin\_port = htons(portno);

if (connect(sockfd,(struct sockaddr \*) &serv\_addr,sizeof(serv\_addr)) < 0)

error("ERROR connecting");

bzero(buffer,1000);

FILE \*f;

write(sockfd,argv[2],sizeof(argv[2]));

f=fopen(argv[2],"r");

fread(buffer,1000,1,f);

write(sockfd,buffer,1000);

bzero(buffer,1000);

read(sockfd,buffer,1000);

printf("%s\n",buffer);

close(sockfd);

return 0;

}

**\*\*\*OUTPUT\*\*\***

Aj:~$ cc client1.c -o c1

Aj:~$ ./c1 192.168.0.109 test.txt

The file has been sent successfully

Aj:~$

**//SERVER SIDE**

#include <stdio.h>

#include <stdlib.h>

#include <string.h>

#include <unistd.h>

#include <sys/types.h>

#include <sys/socket.h>

#include <netinet/in.h>

#include<arpa/inet.h>

#define PORT 6500

void error(const char \*msg)

{

perror(msg);

exit(1);

}

int main(int argc, char \*argv[])

{

int sockfd, newsockfd, portno;

socklen\_t clilen;

char buffer[1000];char fname[25];

struct sockaddr\_in serv\_addr, cli\_addr;

int n;

if (argc < 1) {

fprintf(stderr,"ERROR, no port provided\n");

exit(1);

}

sockfd = socket(AF\_INET, SOCK\_STREAM, 0);

if (sockfd < 0)

error("ERROR opening socket");

bzero((char \*) &serv\_addr, sizeof(serv\_addr));

portno = PORT;

serv\_addr.sin\_family = AF\_INET;

serv\_addr.sin\_addr.s\_addr = INADDR\_ANY;

serv\_addr.sin\_port = htons(portno);

if (bind(sockfd, (struct sockaddr \*) &serv\_addr,

sizeof(serv\_addr)) < 0)

error("ERROR on binding");

listen(sockfd,5);

clilen = sizeof(cli\_addr);

newsockfd = accept(sockfd,

(struct sockaddr \*) &cli\_addr,

&clilen);

if (newsockfd < 0)

error("ERROR on accept");

bzero(buffer,1000);

FILE \*fp;

read(newsockfd,fname,sizeof(fname));

fp=fopen(fname,"w");

read(newsockfd,buffer,1000);

fwrite(buffer,strlen(buffer),1,fp);

write(newsockfd,"The file has been sent successfully",30);

printf("The contents of the file are : \n\n");

printf("%s\n",buffer);

close(fp);

close(newsockfd);

close(sockfd);

return 0;

}

**\*\*\*OUTPUT\*\*\***

Aj:~$ ./s1

The contents of the file are :

MS SQL Server

MS SQL Server is a Relational Database Management System developed by Microsoft Inc.

Its primary query languages are:

T-SQL

ANSI SQL

Aj:~$

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