CLIENT CODE:

#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<ctype.h>

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 buffer[512];

if (argc < 3)

{

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

exit(0);

}

portno = atoi(argv[2]);

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,512);

FILE \*f;

int words = 0;

char c;

f=fopen("glad.txt","r");

while((c=getc(f))!=EOF)

{

fscanf(f , "%s" , buffer);

if(isspace(c)||c=='\t')

words++;

}

write(sockfd, &words, sizeof(int));

rewind(f);

char ch ;

while(ch != EOF)

{

fscanf(f , "%s" , buffer);

write(sockfd,buffer,512);

ch = fgetc(f);

}

printf("The file was sent successfully\n");

close(sockfd);

return 0;

}

SERVER CODE:

#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 <ctype.h>

void error(const char \*msg)

{

perror(msg);

exit(1);

}

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

{

int sockfd, newsockfd, portno;

socklen\_t clilen;

char buffer[512];

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

int n;

if (argc < 2) {

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 = atoi(argv[1]);

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");

FILE \*fp;

int ch = 0;

fp = fopen("glad\_receive.txt","a");

int words;

read(newsockfd, &words, sizeof(int));

while(ch != words)

{

read(newsockfd , buffer , 512);

fprintf(fp , "%s " , buffer);

ch++;

}

printf("The file was received successfully\n");

printf("The new file created is glad\_receive.txt\n");

close(newsockfd);

close(sockfd);

return 0;

}